



Town of

SANDWICH

Digital Equity Plan

Project Background

ACKNOWLEDGEMENTS

The Town of Sandwich Municipal 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 Sandwich played a critical role in developing this plan. This includes leadership, staff, and volunteers from the following entities: the Town Planning and Development Department, Town Administration, the Sandwich Center for Active Living and Council on Aging, the Sandwich Public Library, Sandwich Public Schools, the Sandwich Commission on Disability, and Upper Cape Cod Regional Technical High School.

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




Figure 1: Sandwich Town Hall



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A stylized map of the state of Massachusetts is centered on the page. The map is rendered in a light blue color, contrasting with the darker blue background. Overlaid on the map and the entire background is a network of glowing white lines connecting various nodes, suggesting a digital or interconnected theme. The background also features horizontal light blue streaks. The text 'INTRODUCTION & TOWN VISION' is prominently displayed in the center-left area of the map.

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?

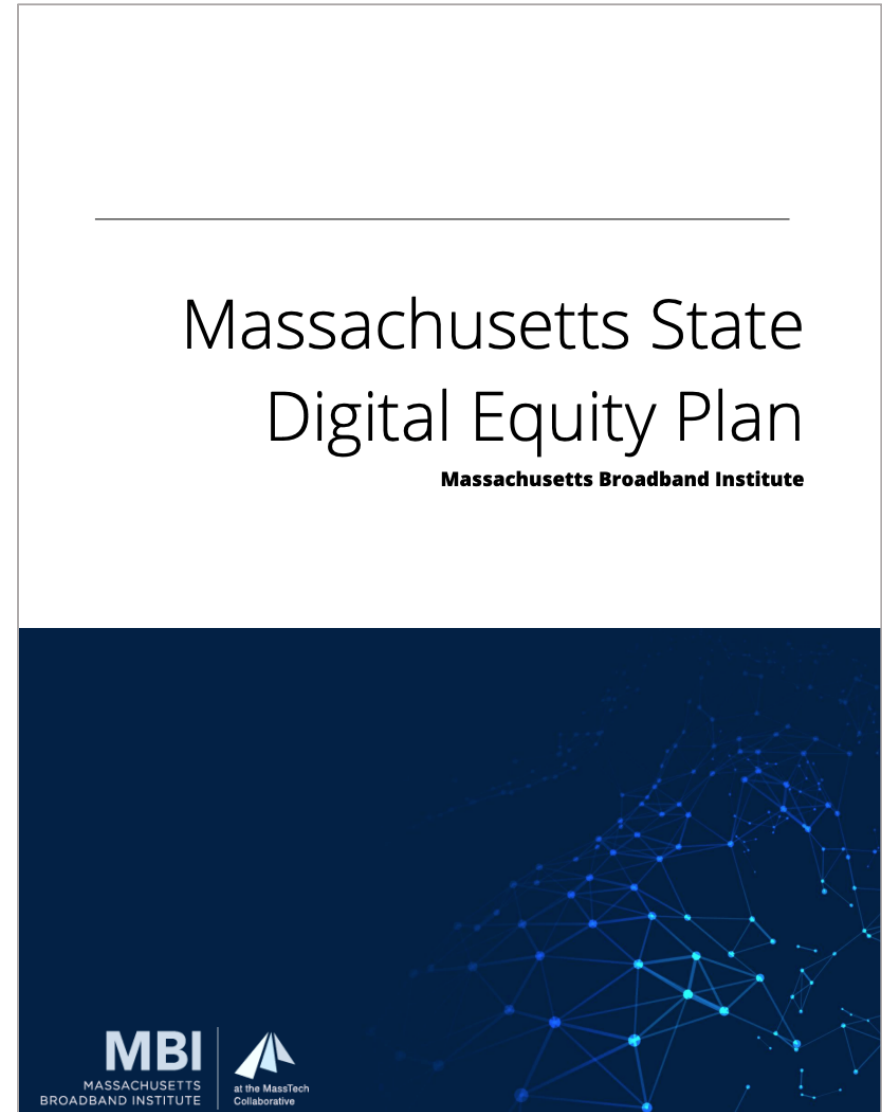
Project Background

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/maineternetforallplan>

Project Purpose

Project Purpose

The Cape Cod Commission (Commission) assisted the Town of Sandwich 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 Sandwich, 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 Sandwich 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 Sandwich, 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

The vision and goals for the Town of Sandwich 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 Sandwich'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 Sandwich Digital Equity Plan and will guide future implementation actions.

Vision Statement

All Sandwich community members will have the opportunity to safely access affordable internet service that is consistently reliable across town and that is easily accessible. Digital inclusion efforts offered across the Town of Sandwich will foster community engagement and improved quality of life, promoting full personal, civic, and economic participation in the community. Digital equity considerations will be incorporated into the existing community culture that already prioritizes values such as accessibility, diversity, equity, and inclusion.

Goals

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

- All community members across the Town of Sandwich can equitably:
 - Access internet *connectivity* that is reliable, affordable, and of adequate service quality.
 - Access the *technology and devices* they need to participate and engage through community resources and programs, availing of the town's increased technology resources and community spaces.
 - Possess the *digital skills* necessary to live, learn, work, and thrive, expanding skills as the digital world advances and individual needs evolve.
- Entities across the Town of Sandwich can:
 - Gain capacity, funding, and resources to enhance existing programs and advance new solutions to achieve these goals.
 - Function as a network, in collaboration with neighboring communities, to provide complementary and community-responsive services.

The background is a vibrant blue gradient with a network of glowing white and light blue lines connecting various nodes. Some nodes are larger and more prominent, while others are smaller. The overall effect is a sense of digital connectivity and data flow.

CURRENT STATE OF DIGITAL EQUITY

POPULATION	HOUSEHOLDS	HOUSEHOLD SIZE	HOUSING UNITS	MEDIAN SALES PRICE	HOUSEHOLD INCOME (<i>median</i>)	MEDIAN AGE
20,246	7,977	2.5	9,625	\$602,500 (2022)	\$121,038	51.9

Table 1: Key Demographic Information for Sandwich. (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 Sandwich on a community level – who lives in town and what conditions may impact the ability of Sandwich 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

Located on the Upper Cape with frontage on the canal, Sandwich is the county's oldest town, settled in 1637. The community strongly identifies with its place in history and places an emphasis on preserving the structures and features of its past.

At the same time, Sandwich is a modern town with modern needs for reliable connectivity. By Cape Cod standards, Sandwich stands apart in several ways. It is a year-round community, with the lowest percentage of seasonal housing units. It is the youngest town by median age (51.9) and has among the highest percentage of residents under the age of 18 (16.8%).

What may be the most surprising for a region with numerous high-wealth enclaves, Sandwich has the highest median household income, by far, of any town on Cape (\$121,000 to the county median of \$90,400).

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

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 on page 14.

For the purposes of this planning effort, Commission staff explored data and experiences from populations that are particularly present in the Town of Sandwich, with a focus on Covered Populations. Generally, the Town of Sandwich’s demographics reflect the entirety of the Barnstable County region, with a few variances discussed further in the sections that follow. Detailed demographic data and maps 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. Sandwich has the lowest median age in the county at 51.9 years, which is still far higher than Massachusetts (39.8 years) and the nation (38.5 years).

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

AGE DIVERSITY

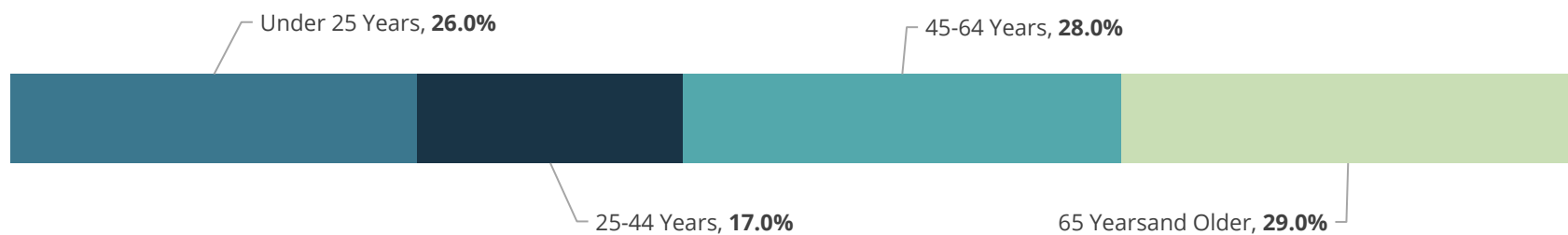


Figure 2: Age Diversity in Sandwich

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

People

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 Sandwich, as with the rest of the Cape, a higher-than-average number of aging residents drives a higher Age Dependency Ratio of 76.3. This means that for every 100 residents presumed to be in the workforce (those aged 18 to 64), there are 76 outside of it. The State ratio is 58.

Sandwich's aging population is reflected in other data. A little under half of all households have at least one person over 65. Close to 40% of households reported retirement income. Along with having a slightly lower overall percentage of individuals with a disability (10.8%) than the county (13.8%) and state (11.9%), Sandwich's aging population with a disability (17.2%) is markedly lower than county (25.6%), state (30.5%), and national (33.3%) percentages.

From a digital equity perspective, a larger aging population may represent skills and knowledge gaps 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 Sandwich, 13.3% 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 inquieties that may be experienced by members of racial or ethnic minority groups.

Sandwich's racial and ethnic diversity is fairly consistent with County-wide statistics, with 93.7% of its population identifying as White alone. The second highest percentage of one race is Asian (1.4%), followed by Black or African American (1.2%), and Native American (0.2%), including but not limited to members of the Herring Pond Wampanoag Tribe and the Mashpee Wampanoag Tribe.

Sandwich'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 of families with school-aged children.

Enrollment data indicates that 1.2% of students identify as Black, 2.9% as Asian, 4.5% as Hispanic, 2.1% as Multiracial, 0.3% as Native American, 0.2% as Native Hawaiian or Pacific

POPULATION BY RACE

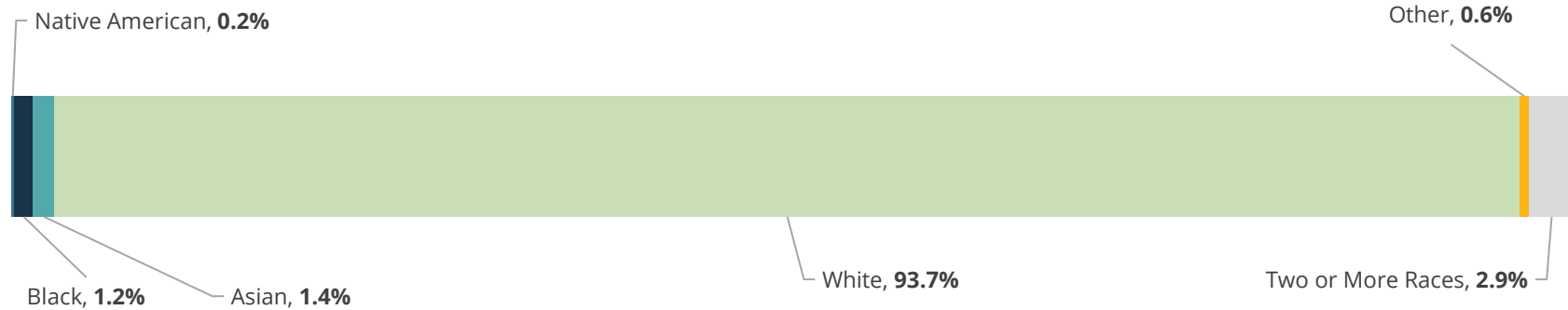


Figure 3: Population by Race in Sandwich

Islander, and 88.8% as White. Additionally, 3.1% 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.

Sandwich's median household income (\$121,038) is the highest of any Cape town and exceeds the County's median household income (\$90,477). It includes a higher

percentage of households reporting wage and salary earnings (75.4%), which is more in line with the state (79%) than the county (70%). Correspondingly, the number of households in Sandwich reporting retirement income is lower relative to the rest of Cape Cod, which reflects the town's higher percentage of working individuals.

6.1% of Sandwich households receive food stamps or SNAP benefits, which is less than the county (7.8%) and significantly less than the state (12.9%). Approximately 3.5% of all Sandwich households fall below the poverty level for Massachusetts. For female householders with children under 18 and no partner, this increases to 6.4%. Approximately 24.5% of students enrolled in Sandwich Public Schools qualify as low-income. It is likely that these households experience challenges accessing the digital world, such as affording broadband.

People

HOUSEHOLDS PER INCOME BRACKET

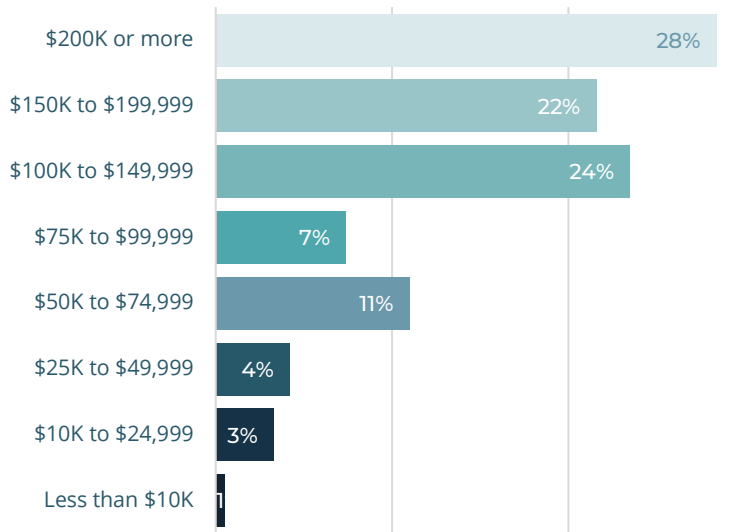


Figure 4: Households per income bracket in Sandwich

PEOPLE WITH DISABILITIES

In 2022, the U.S. Department of Labor released a [report](#) on the intersection between disability and internet subscriptions, internet use, and employment outcomes, highlighting inequities experienced by people with disabilities.⁴ Throughout this project, stakeholders

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

demonstrated a strong commitment to advancing digital equity solutions for people with disabilities.

The town of Sandwich as a whole has a lower percentage of residents with a disability (10.8%) than the county (13.8%), state (11.9%), and nation (12.9%). Typically, a high median age correlates with an increased percentage of the population with a disability, so it is not surprising that the town trends lower than the rest of Barnstable County.

However, Census Tract 136 offers a noteworthy exception. Generally covering Forestdale, this tract has the lowest median age across Sandwich (48.3) while also having the highest percentage of residents with a disability (14.4%). Of the nearly 900 residents with a disability, 63% are in the 18 - 64 age bracket, which is a significantly higher average proportion than the town, county, and nation. This tract has the highest percentage of year-round households on Cape Cod, with just 1.8% of units categorized as seasonal. This is also an area with some of the lowest percentages of households achieving broadband speeds across Cape Cod, per the FCC's former definition of broadband as 25/3 Mbps. Identifying digital equity needs within this part of Sandwich, particularly with respect to people with disabilities, should be considered in future outreach.

Data from the Massachusetts Department of Elementary and Secondary Education demonstrates a slightly higher average number of students with disabilities enrolled in Sandwich Public Schools (21.4%) than the state (20.2%). As reported by Sandwich Public Schools staff, the district is well regarded across the county for their programming for students with disabilities, which may attract families from outside of Sandwich to avail of this school system.

VETERANS

Sandwich's 7.9% veteran population is on par with the county, state, and nation. Roughly 25% of Sandwich veterans report having a disability and 77.5% are 55 years

old or above. These characteristics likely lead to compounded digital challenges for Sandwich's veterans.

Housing

Of the 9,625 housing units in Sandwich, 83% are occupied year-round, with a lower percentage of rentals (11%) than most other towns across Barnstable County.

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

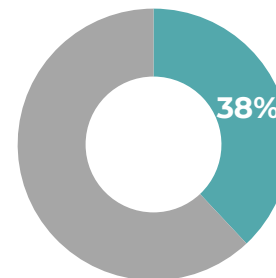
The percentage of seasonal housing stock in Barnstable County is among the highest in the United States, ranking

HOUSING STOCK

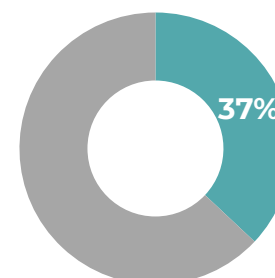
In Sandwich, over 90% of residential properties are single family homes; about 7% are multifamily properties. Less than 2% are other types of properties. Other properties may be a single home or may be multifamily homes such as compounds, which may include multiple houses on one parcel occupied by different households or a single family home with a guest house. Mix of uses are properties 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



RENTERS spending at least 30% monthly

Connectivity

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.

Sandwich stands apart from the county. While it is four times more seasonal than the rest of Massachusetts and the nation, Sandwich is the Cape's least seasonal communities, at 13.5% of its housing stock. These seasonal homes are concentrated in the town's coastal areas, where upwards of 30% of the units are second homes. The interior portions of town are solidly year-round and owner occupied.

Understanding Sandwich'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 Sandwich with a high housing cost burden.

Connectivity

Massachusetts has among the highest percentages of broadband served locations in the country, meaning its overall number of unserved and underserved locations is relatively low compared to other states, with some exceptions. Sandwich'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.

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 Sandwich has been reduced, meaning more locations have been determined to be served.

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

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

Table 2: Providers Serving Sandwich by Availability

Provider	Technology	Advertised Download	Advertised Upload	BSLs	with Service	% with Service
Comcast	Cable	1200	35	10,108	10,098	99.9%
T-Mobile	Fixed Wireless	25	3	10,108	1,607	15.9%
T-Mobile	Fixed Wireless	100	20	10,108	20	0.2%

SOURCE: Massachusetts Broadband Institute Broadband Map. <https://mapping.massbroadband.org/map/Competition>, June 2023 data.

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 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-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 within 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 9,616 serviceable locations in Sandwich, nine of which were underserved and 25 unserved.

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 expressions of dissatisfaction from residents throughout outreach indicate a mismatch between stated availability of broadband and how many Sandwich users experience the Internet.

Connectivity

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 6,200 tests by more than 1,100 users within the Town of Sandwich (*summary table in Appendix*).

An analysis of these tests shows about 24% of all Sandwich tests would qualify as underserved, which is lower than all tests for Barnstable County (28%).

It is also notable that the Town of Sandwich, and nearly all of Cape Cod, currently lack access to fiber broadband, the most "future-proof" connection option that can deliver symmetrical speeds (the same download as upload speeds) and is based able to scale to meet future bandwidth needs.

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

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 devices.

Table 3: Types of Household Internet Subscriptions

Service Type	Sandwich		County		State	
	Total	Percent	Total	Percent	Total	Percent
With an Internet subscription	7,618	95.5%	101,544	94.7%	2,601,334	93.0%
Without an Internet subscription	359	4.5 %	5,643	5.3%	196,442	7.0%
Dial-up with no other type of Internet subscription	8	0.1%	57	0.1%	2,843	0.1%
Broadband of any type	7,610	95.4%	101,487	94.7%	2,598,491	92.9%
Cellular data plan	7,084	88.8%	94,332	88.0%	2,431,572	86.9%
Cellular data plan with no other type of Internet subscription	524	6.6%	9,084	8.5%	261,234	9.3%
Broadband such as cable, fiber optic or DSL	7,036	88.2%	90,886	84.8%	2,295,043	82.0%
Satellite Internet service	288	4.0%	3,828	3.6%	89,830	3.2%

DEVICES AND CONNECTIONS

The vast majority of Sandwich households have one or more computing devices (97.1%) and some form of broadband internet connections (95.4%).

Desktop and Laptop computers are found in 89.1% of homes, with 4.4% relying on them as their only computing device. Smartphone (88.8%) and tablet (75.8%) adoption is consistent with the county, state and federal percentages.

The number of households with no computers (2.9%) is lower than county (3.3%), state (4.1%) and nation (4.3%). This represents a decrease (i.e. more homes with computers) since the start of the pandemic (3.7% in 2019).

Post-pandemic data demonstrates that Sandwich 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 over time. Approximately 86% of

Connectivity

Sandwich households have the possibility of redundant internet access through cellular data plans in addition to their primary internet subscription. Roughly 6.6% of households only have a cellular plan for internet access, which is lower than county and state percentages.

ACP AND AFFORDABILITY

The Affordable Connectivity Program (ACP) is an FCC benefit program that helps households afford broadband. The 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 Sandwich households without internet access (2.8%) is lower than the county (5.3%). Households with less than \$20,000 in annual income include the greatest percentage of households without internet (12.4%). This is a little more than half of county, state, and national percentages for such households.

Commission staff estimate that 16% of all Sandwich households qualify for ACP based on income. While there are many ways for households to qualify, including participation in government aid programs, Medicare enrollment, or veteran status, income serves as a good proxy for eligibility. Only a quarter of eligible households have taken advantage of the ACP.

The future of the Affordable Connectivity Program is contingent on federal action, as current funding is expected to run out in Spring 2024. This could create a burden for families in Sandwich currently relying on the ACP to afford their internet connection. ACP eligibility and uptake data remains useful because it informs an understanding of populations struggling to afford internet access.

MASSACHUSETTS BROADBAND INSTITUTE SURVEY

The Massachusetts Broadband Institute (MBI) developed a statewide digital equity survey to inform both the Massachusetts Digital Equity Plan and municipal digital equity planning efforts. The survey was primarily distributed digitally through online publicity (e-newsletters and social media) and was self-selecting in nature. As a result, for the Town of Sandwich and many municipalities, the survey did not provide a representative sample of the population. In Sandwich, 91 surveys were taken, and respondents skewed older, less diverse, and with a greater household income than the town as a whole.

Acknowledging these limitations, the survey generally aligns with feedback provided by community members throughout the Cape Cod Commission's outreach activities and with other available datasets that were analyzed as part of this project. These survey results may be used

Information Gaps

alongside other data points to inform the Town of Sandwich's implementation priorities.

Notably, 53% of respondents found that paying for their internet bill was somewhat or very hard. A total of 79 respondents took the speed test associated with the survey, and results indicate greater difficulty with data upload speeds than download speeds. As of March 2024, the federally designated definition for broadband is 100 Mbps download and 20 Mbps upload. Both median and average upload speeds failed to reach 20 Mbps. Download speeds showed great variability, but both median and average speeds exceeded 100 Mbps. This change sets a new, higher benchmark for internet speeds and service expectations.

Other notable datapoints include the following:

- A vast majority of respondents (94%) reported that all members of their households have access to devices to meet their everyday needs.
- 38% indicated their internet service was not good enough to meet household needs.
- The most common devices used to regularly access the Internet were smart phones (75%) and laptops (73%).
- Asked what types of digital skills support they would be most interested in, 54% indicated self-training modules, 30% for online courses, and 16% for some form of in-person support, either classes (6%) or from a friend or instructor (10%).

- A high percentage (94%) reported being somewhat or very concerned about internet safety. Those concerns included personal data security (87%), being scammed (67%), being tracked or surveilled (62%) and online harassment (39%).

Information Gaps

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

- The Massachusetts Broadband Institute's Statewide Digital Equity Survey was well taken by Sandwich residents; however, young families were underrepresented. To better understand challenges specific to families, 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. Exploration of data related to these populations is recommended.

COMMUNITY ENGAGEMENT



Process Overview

COMMUNITY ENGAGEMENT

Process Overview

Community engagement was central to the development of the Town of Sandwich Digital Equity Plan. Feedback, experiences, and perspectives shared by community members and stakeholders directly inform the *Key Findings* and *Implementation* 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 Sandwich. Commission staff then implemented a diverse range of community engagement activities.

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



178

SURVEY RESPONSES



3

COMMUNITY EVENTS



225+

RESIDENTS ENGAGED

Project Kickoff

On October 2, 2023, Commission staff facilitated a project kickoff meeting with leaders identified through project coordination with the Town Planning and Development Department and Town Administration. The purpose of the kickoff meeting was to build a shared understanding about the Municipal Digital Equity Plan project, present and discuss data related to existing conditions in the Town of Sandwich, 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 Planning and Development Department
- Sandwich Public Schools
- Sandwich Public Library
- Sandwich Council on Aging/Center for Active Living
- 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 those 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 Sandwich, and consider how to promote the community workshop and other opportunities to engage with the project within stakeholder's individual community.

Participating stakeholder entities included:

- Sandwich Public Schools
- Sandwich Council on Aging/Center for Active Living
- Sandwich Public Library
- Sandwich Partnership for Families
- Sandwich Commission on Disability
- Upper Cape Cod Regional Technical High School
- Sandwich for All
- Joint Base Cape Cod
- Cape Cod Healthcare

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:

- Sandwich Public Library, November 17, 2023
- Sandwich Council on Aging and Center for Active Living, November 28, 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 Sandwich Public Library pop-up was targeted towards families with school-aged or young children, as the pop-up coincided with youth activities and with a Meet the Library Director event. The pop-up was also briefly livestreamed by Sandwich Public Library staff. The pop-up at the Center for Active Living coincided with Council on Aging exercise and recreational activities, offering an opportunity for participation from aging adults.



Community Workshop



A public community workshop was held at the Sandwich Center for Active Living on December 6, 2023, at 5:30pm 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 informs this plan.

Cape Cod Commission and Town of Sandwich 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 data related to Sandwich's digital equity landscape, further explored in the *State of Digital Equity* section of this plan, including population demographics, an overview of covered populations, connectivity, and Massachusetts Broadband Institute (MBI) statewide digital equity survey data.

Commission staff facilitated three exercises to gain community feedback: an asset mapping activity, a barriers and opportunities exercise, and a vision and goal setting exercise. These exercises are further described below.

ASSET MAPPING ACTIVITY

The purpose of this activity was for participants to identify individuals, groups/organizations, programs, and municipal efforts that advance digital equity and inclusion within the community. Community members listed their suggested assets on boards spread across the meeting space. These assets are outlined within the *Key Findings* section of this plan and incorporated within the *Implementation* section.

BARRIERS & OPPORTUNITIES EXERCISE

In the next group exercise, participants dove further into digital equity barriers and opportunities specific to the Town of Sandwich. Commission staff shared prompting questions and captured participant feedback on

Additional Outreach Strategies

flipcharts. Data from this exercise provides the foundation for the *Key Findings* and *Implementation* sections.

VISION & GOAL SETTING EXERCISE

The final exercise focused on developing a shared vision and goal statement for the plan, feedback from which shapes the Vision and Goals outlined in the *Introduction* of this plan. Participants were first asked to share words or brief statements that reflect an ideal state for achieving the four main pillars of digital equity. Residents were also asked to share responses to questions related to achieving a vision for digital equity in Sandwich.



Additional Outreach Strategies

Public comment form: A comment form was available on the Commission’s project webpage during the project planning period. Public feedback was incorporated into plan development.

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 Sandwich. The project was featured in local media, with a segment appearing on Sandwich Community TV and with additional publicity from the Cape Cod Times, CapeCod.Com and associated broadcasts, and WCAI for Cape Cod and the Islands. 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 white lines connecting small white dots, creating a web-like structure. Overlaid on this are several horizontal, glowing blue bars of varying lengths and opacities, some appearing as thick, bright streaks and others as thinner, more translucent lines. The overall effect is a sense of digital connectivity and data flow.

KEY FINDINGS

Overview

KEY FINDINGS

Overview

Throughout the digital equity planning process, residents, community members, and stakeholders shared their unique perspectives related to digital equity. Individuals reported barriers and challenges to achieving digital equity, as well as assets and strengths that support the advancement of digital equity currently and 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 of digital equity. 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 Internet and Cellular Service Across Sandwich

Community members frequently reported poor internet and cellular service in their homes and across key locations in town. Of their internet service, residents reported that speed strength is unreliable, and that outages or interruptions are frequent. Residents frequently voiced safety concerns related to the poor quality of internet and cellular service, sharing that mobile “dead-zones” and unreliable internet access can pose a real threat when dealing with emergency situations. Residents also reported that poor connectivity impacts their daily life, including the ability to work from home, conduct business, participate in virtual community activities, socialize, or seek needed services. Community members named geography, infrastructural concerns, seasonal population growth, and a lack of competition as contributing factors towards unsatisfactory service.

Lack of Competition Impacts Affordability and Quality

Residents frequently reported that a lack of competition results in unaffordable and unsatisfactory internet service. Residents frequently reported that they are spending more than they would like on their current internet plan, but do not have any alternatives or the leverage required to

Barriers and Challenges

negotiate more reasonable prices. When describing the cost of their internet service, residents used terms such as “absurd,” “detrimental,” and “stupidly expensive.” Internet affordability was perhaps the most vocalized concern across residents engaged in this process, as this almost universally impacted internet users of all ages, backgrounds, and skill levels.

Residents also reported that this lack of competition yields poor internet service quality. Residents shared that they do not believe their current internet service provider has incentive to fix issues adequately or efficiently given the lack of competition. Generally, the lack of competition exacerbates issues highlighted above in *Unreliable Internet and Cellular Service in Sandwich*.

While residents have identified preferable internet service options, these choices do not exist locally or may not serve residential units. For example, residents were particularly concerned that they lack fiber options.

Ineffective Communications with Internet Service Providers

Residents frequently shared concerns around challenges they experience when trying to communicate with their internet service provider (ISP). Communication challenges are attributed to a perception of ineffective customer service, which is often coupled with inadequate personal understanding of internet plans, bundles, and computing devices. Residents reported vocabulary barriers when

talking about the internet and computing devices to ISP customer service representatives – often, terminology is used by customer service representatives that residents may not fully understand. Residents also reported that a lack of local knowledge by customer service representatives may contribute to insufficient customer service.

Communication challenges can result in unresolved connectivity issues. Ineffective communication with ISPs can lead to other unwelcome outcomes – such as purchasing an internet service bundle that exceeds or does not meet actual needs, overpaying for internet service, or losing trust with the provider. Generally, residents feel that they do not have reliable or trustworthy support when a connectivity issue occurs.

Inadequacy of Financial Assistance Programs

Residents reported that programs currently subsidizing internet subscriptions do not solve the core issue of unaffordability. For example, the Affordable Connectivity Program, while providing some level of relief, does not address core issues with expensive internet service provision or socioeconomic factors that contribute to financial instability. Existing solutions that community members are aware of seem to provide a band-aid rather than solving the core systemic inequities that impact connectivity.

Barriers and Challenges

DEVICES

Device ownership and usability concerns

While many community members generally seemed satisfied with personal ownership of computing and cellular devices, stakeholders representing some covered populations, including low-income and immigrant families, expressed specific concerns with device ownership.

To provide an example, for some families, a school-issued ChromeBook serves as the primary household device, which might not be needs-appropriate for all family members or could create strains when multiple family members need access. Additionally, some individuals utilize a cellular device as their primary computing device, which can pose a challenge when trying to complete complex activities – such as completing digital paperwork or multitasking while on a phone call or in a virtual meeting.

Community members also reported concerns about operating disparities between different devices (such as differences between operating Apple and Microsoft computing systems, or Apple and Android devices) and shared how these disparities are detrimental to continued learning. Community members expressed concern on how to best keep up with changes to computing devices and technology and shared that there are limited community resources to do so. Aging individuals shared that while keeping up with new devices may be second nature to a

younger generation, in many cases they would benefit from greater guidance or education.

Digital waste

Community members expressed concerns around digital waste. Community members reported that devices do not seem to have a long lifespan, especially as technology continues to advance. While community members were concerned about how to keep up with the latest technology, many were equally concerned about what happens to their digital waste and how this may pose environmental hazards or contribute to climate change.

DIGITAL SKILLS AND LITERACY

Internet safety concerns

Community members frequently reported safety, security, and trust-based concerns related to internet use. While some community members attribute these concerns to a lack of personal skills, many expressed worries over cybersecurity and falling victim to internet and phone scams. Many community members had personal experience with an internet scam or hack or knew someone who had.

Safety concerns exacerbate existing insecurities or self-doubts when using the internet and accompanying technology. Many community members reported a general “fear of the unknown” when engaging with technology and

a lack of interest in learning new digital skills, which is in part due to the potential risks of engagement. Generally, safety, security, and trust-based concerns can increase existing knowledge gaps, particularly as the digital world continues to advance and as essential services are increasingly offered through digital means.

Lack of programs that provide individualized and unbiased tech support

While workshops and courses collectively address shared skills challenges and build community, community members noted that increased one-to-one programming is a critical need and could complement already-existing skills courses. In particular, community members reported trouble using devices that they already own, such as iPhones, tablets, and iPads, and a lack of opportunity to learn these skills in an individualized setting. Community members expressed a desire to receive individualized support from an unbiased entity, rather than from the customer service staff at a specific company.

Technical barriers experienced by individuals may include anything from basic troubleshooting or device operations for new users, to completing online forms for essential services such as the Registry of Motor Vehicles (RMV) or MyChart, to personal needs such as taking a photo, downloading an application, or sending a message to a family member. Community members express a desire for personal and affordable support in these areas.

COMMUNITY

Lack of awareness of existing resources

While many community members are aware of resources that exist through digital equity assets, such as the Sandwich Public Library and Council on Aging/Center for Active Living, many were not aware of all available resources, programs, or services. Many expressed the belief that other community members are also not aware of all available resources.

Digital access within public services and communications

Generally, community members reported that digital equity values are not universally incorporated across townwide activities, communications, strategies, and plans. For example, residents reported digital equity-related barriers to accessing town services and communications, such as town services that rely heavily on internet-based communications without providing alternative methods to better reach residents “where they are at.” Residents report that it can be difficult to navigate town services, and other public services, as tools to access these services are increasingly digitized. While it is important for municipal, nonprofit, and other public services to leverage the digital world to maximize efficiencies and reach a broad audience, it is also helpful to employ accompanying strategies to ensure that no one is left behind.

Assets and Strengths

Implementation and funding challenges

Community advocates with knowledge of digital equity funding opportunities noted barriers to accessing funding for future solutions. For example, many grant applications are dense and lengthy, requiring time, capacity, and technical knowledge. This is often coupled with short application periods which prevent volunteers with limited availability from timely submission or may impact the quality of the application.

Assets and Strengths

The Town of Sandwich has demonstrated commitment to furthering digital equity by connecting key digital equity assets within the community to this planning process. Building on already-existing strengths is key to advancing digital inclusion efforts for the Sandwich community into the future.

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* chapter.

Complementing practice established by the Massachusetts Broadband Institute, assets are divided into three primary categories: Individuals, Groups/Organizations, and Programs, with an additional category included for Other.

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

Individuals

- Sandwich Council on Aging & Center for Active Living staff and volunteers
- Internet service provider and mobile provider customer service
- Librarians and library staff
- School IT staff, guidance counselors, and English Language Learner (ELL) staff
- Tech savvy family members and community members

Programs and Initiatives

- Affordable Connectivity Program
- Cape Cod and Islands MassHire: career development programs
- Elder Services of Cape Cod & the Islands: Senior Planet Courses hosted at the Council on Aging
- Sandwich Commission on Accessibility initiatives
- SCORE Cape Cod: educational and career development programs

Assets and Strengths

- We Can: skills development and cybersecurity classes

Organizations

- Atlas Computer Services
- Cape Cod Chamber of Commerce
- Gadgets Made Easy
- Mobile Mac Doctors
- Open Cape
- Sandwich Chamber of Commerce
- Sandwich Council on Aging & Center for Active Living: computer skills and security workshops, classes, and 1-on-1 support
- Sandwich Public Library: free public Wi-Fi, devices on-site, tech support, hotspot and device loans, tech bar
- Sandwich Public Schools: student ChromeBooks, IT support and education

Other

- Comcast/Xfinity and mobile carrier local offices and help desks
- Digital skills tutorials available on YouTube
- Local businesses with free Wi-Fi access, such as cafés

DIGITAL EQUITY STRENGTHS

Digital equity strengths that already exist across the Town of Sandwich were identified throughout the community

engagement process. Oftentimes, these strengths are strategies and activities implemented by one or multiple of the digital equity assets identified above.

Shared commitment to an accessible, equitable, and vibrant community

Stakeholders and community members across the Town of Sandwich expressed commitment to accessibility as a core town value. In particular, entities such as the Commission on Disability, Sandwich Public Schools, Sandwich for All, Sandwich Partnership for Families, Sandwich Public Library, and Sandwich Council on Aging are keenly dedicated to ensuring that families across Sandwich can access digital services, opportunities, and education, regardless of disability, English language literacy, or life experience. Stakeholder organizations and community members across the Town of Sandwich have been eager to incorporate the values of digital equity as a component of promoting accessibility and equity broadly.

There are many groups across the Town of Sandwich currently providing support to covered populations through programs, services, and resources. This includes health and human services agencies, congregations, and other nonprofit or community groups. Entities supporting covered populations that were contacted during this planning process expressed an understanding of digital inequities experienced by those they serve. Staff and volunteers at these trusted entities may already triage

Assets and Strengths

internet and technology challenges experienced by constituents to some extent.

Finally, community members engaged during this planning process expressed pride in living in Sandwich. Many attributed the geography of Sandwich as a strength, given the ease of access, relative to other Barnstable County towns, to resources both on the mainland side of the Cape Cod Canal and further down Cape. Community members also believe that Sandwich has a relatively strong year-round population, making for a community that tends to be engaged in local initiatives and who contribute to a strong town economy. Community members believe that this will yield greater momentum and opportunity in implementing digital equity solutions.

Opportunities to incorporate digital equity into town activities

Broadly, community members and stakeholders shared a belief that this is the “right time” to focus on incorporating digital equity across town activities.

For example, the Housing Authority is pursuing new public housing builds in town and there is an opportunity to better incorporate digital equity solutions while creating these physical spaces. The Sandwich Public Library is in the process of considering new programs to introduce or formalize related to digital equity.

As the driving force behind the municipal digital equity plan, Town Planning and Development Department staff

have identified opportunities to better leverage new, state-of-the-art technology across town to advance digital equity solutions for residents.

Furthermore, community members have expressed interest in formalizing a group or committee dedicated to the advancement of the municipal digital equity plan.

Established digital equity services and programs

Key entities across the Town of Sandwich offer technology support programs that could be maintained or enhanced into the future. This includes the following highlights:

Sandwich Council on Aging (COA) & Center for Active Living offers a beginner Senior Planet Course in partnership with Elder Services of Cape Cod & the Islands, various workshops related to navigating technology and the internet, and volunteers who can provide 1-to-1 technology support. COA staff are strong advocates for digital equity.

Sandwich Public Library offers informal support from reference librarians, 8 public computers, 5 hotspots for lending (with 5 more incoming), public Wi-Fi access, charging stations and laptop bar, and 1 public printer. Library staff are considering re-introducing more formal digital equity programs, some of which did not return after the COVID-19 pandemic.

Technology is well-integrated into student academic experience at both Sandwich Public Schools and Upper Cape Cod Regional Technical High School. Both school systems have IT staff that are available to help students

Assets and Strengths

and families with school-related technology needs. Students benefit from technology lending programs through the schools, which are adapted to be age appropriate. The schools offer hotspots, but comment that these are not very popular. Both school systems have benefited from the federal programs E-Rate: Universal Service Program for Schools and Libraries and the Emergency Connectivity Fund.

Sandwich Public Schools IT staff handle the majority of technical needs in-house, which includes a fairly robust ChromeBook repair and repurposing program. Sandwich Public Schools IT staff provide agile and needs-responsive support to families with their tech needs and build-in accessibility features into technology wherever possible.

Both schools expressed interest in opportunities to advance digital equity for students, their families, and the community holistically.

A handful of private businesses in and near the Town of Sandwich offer support with technology and the internet. This particularly includes Mobile Mac Doctors and Atlas Computer Services. Both of these organizations were cited as providing thoughtful, trustworthy, and need-responsive technological support.

Finally, the Town of Sandwich boasts many community media outlets that could be further leveraged to advance digital equity initiatives, such as Sandwich Community TV.

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 partnership examples within the Town of Sandwich, this may also include regional partnerships and peer-learning opportunities.

For example, the libraries across Cape Cod were identified as regional digital equity assets within the Massachusetts Statewide Digital Equity Plan. Many libraries across the Cape are offering innovative digital equity programs and resources. Participation in both formal and informal peer-learning opportunities will benefit Sandwich Public Library in advancing their own digital equity strategy.

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 is beneficial to digital equity efforts within the Town of Sandwich.

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IMPLEMENTATION

IMPLEMENTATION

Overview

This section provides recommendations and related actions tied to the challenges and opportunities outlined in *Key Findings*. These are categorized by four components essential to achieving digital equity: connectivity, devices, skills, and community. 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 Sandwich can measure its progress in advancing digital equity for community members through the execution of this plan.

It is critical to note that the majority of these recommendations require expanded capacity for key entities. Additionally, in many cases, digital equity cannot be furthered without increased funding. The *Funding Opportunities* section below describes funding mechanisms and strategies identified by Cape Cod Commission staff.

Generally, recommendations provided to the Town of Sandwich will ring true for municipalities across Barnstable County. Many recommendations developed for the Town of Sandwich are also found in the neighboring Town of Bourne's Municipal Digital Equity Plan. Municipal leadership across the region should consider opportunities for peer-

learning, cost-sharing, and streamlined strategies. Cape Cod Commission staff are available to support the consideration of regionalized solutions.

Recommendations

CONNECTIVITY

Organize and 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 Sandwich should explore how to provide a platform for residents to share internet service challenges and consider a structure to track internet service provider performance quality, infrastructure, and accountability. This could take the form of a town committee, task force, or the development of a local coalition that involves public, private, and nonprofit representation. Municipally led coordination and continued data collection in this area will provide a stronger foundation for grant applications and open the door to new funding opportunities.

Encourage internet service provider competition

A lack of competition was frequently cited as a contributing factor to unreliable, unaffordable, and spotty internet service. Additionally, the lack of residential fiber – the

Recommendations

technology that can best accommodate future bandwidth needs – was also cited by community members as a core concern.

The Town of Sandwich should encourage increased internet service provider competition. The town should explore opportunities to attract additional providers and service options to the area with an aim to increase affordability, speeds, and service quality. In particular, the town should investigate opportunities to encourage the extension of broadband to all municipal facilities, community anchor institutions, residents, and businesses in town by supporting the efforts of providers who are offering fiber connection opportunities.

Promote public WiFi availability

Community members identified public Wi-Fi locations across town, such as those in cafés and the library, as digital equity assets. Expanding public Wi-Fi availability across key locations in Sandwich will benefit residents, tourists, and business owners, supporting economic and recreational activity. The town may consider opportunities to offer free public Wi-Fi in village centers and popular recreational spaces.

Community members frequently commented that spotty cellular coverage led to safety concerns in the event of an emergency. Providing public Wi-Fi in key locations can mitigate risks as it offers a means of communication. The Town of Sandwich should work with key community

locations, which may include partnership with public, private, and nonprofit entities, to ensure that public Wi-Fi availability and strength accommodate needs of the general public and is of a high and consistent quality.

Connectivity should be a consideration as new municipally run or managed properties are constructed or retrofitted. Opportunities to better connect residents to the digital world should be incorporated within planning and budgeting, particularly in cases where connectivity solutions can be streamlined from cost and infrastructural perspectives. Prioritizing connectivity is forward-thinking and can yield a number of health, social, and economic benefits for residents.

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

DEVICES

Coordinate public computing device offerings through partnerships

Introducing new public device lending programs would support the 2.9% of Sandwich residents without a device or those who lack a needs-appropriate device. Libraries across Barnstable County vary in device lending programs and policies. While Sandwich Public Library offers strong on-site

Recommendations

computing device offerings, they currently do not offer ChromeBooks for lending.

The Sandwich Public Schools IT Department facilitates robust computing device lending for students. IT staff are thoughtful about computing device recycling and repurposing options, maximizing each device the school system purchases. A collaboration to pilot a public lending program using recycled devices between the Sandwich Public Library and Sandwich Public Schools should be explored. Weighing potential losses or risks against the benefits of operationalizing such a program should be among the considerations. Peer-learning with other school systems and libraries across the region should be conducted to learn if other communities have considered this type of program.

Implementing and operating this type of program may require additional library and school staff time. Additional staff capacity should be built into the introduction of a device lending program. In particular, the library should ensure that on-site staff have the technical ability to support residents with devices available for loan.

The Town of Sandwich may also consider other options for device lending, which could include working with other towns to create 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 Sandwich and the region should advocate for state and federal government opportunities to mitigate the financial burden of devices for both schools and families.

Monitor and promote hotspot lending programs

While qualitative and quantitative data demonstrates that residents across the Town of Sandwich are relatively well-connected from a device access perspective, it is critical to continue making devices available to residents in need. This includes hotspots that may help to mitigate connectivity issues.

Currently, hotspots are available for lending to community members through the Sandwich Public Library and to students and their families through Sandwich Public Schools. Library staff report that the five available hotspots are very popular, and five additional hotspots were recently purchased to accommodate community need. Sandwich Public Schools report that its hotspots are not particularly popular with families. Coordination across all town entities offering hotspots would be beneficial to maximize existing

Recommendations

resources. For example, a family in need of a hotspot with children attending Sandwich Public Schools could be bridged to a loaner through the school, rather than the library.

Additionally, municipal staff and community-based organizations supporting covered populations should receive education about existing hotspot lending offerings across town. This will help ensure constituents are appropriately directed when connectivity issues occur.

Library and school staff should continue to monitor the popularity of available hotspots. If hotspots are continually checked out from the library, even with the additional recent purchase, the library may consider opportunities to foster a regional collaboration around hotspot lending to maximize efficiencies.

Solutions to address device obsolescence and waste

Residents reported concern around device longevity and waste. Existing solutions to address digital waste could be employed by the Town of Sandwich. For example, Fixit Clinic is an organization that partners with libraries and other community organizations to disassemble, troubleshoot, and repair broken goods (including technology and electronics) as part of the broader Right-to-Repair movement to reduce consumption and promote sustainability. Other Cape-based libraries have expertise in

this area and could support Sandwich Public Library to advance this solution.

DIGITAL SKILLS AND LITERACY

Promote existing and increase one-to-one/in-person support services

Community members frequently reported a need for more one-to-one technology support to improve personal device use, troubleshoot issues, and achieve individual goals. Community members reported a lack of technology or internet service provider storefronts on Cape Cod as a factor that exacerbates the need for more localized one-to-one programming.

At present, both the Council on Aging (COA) and the library offer this type of support to some degree. By partnering with Mobile Mac Doctors, the COA is able to provide free, high-quality one-to-one services for seniors – an offering that is publicized regularly in the COA newsletter. At the library, tech savvy resource librarians support patrons with tech needs on a drop-in basis. It is recommended that both entities continue to offer these services, monitoring community need and adjusting as necessary.

In the case of the library, formalizing one-to-one services would be beneficial. Additionally, the library may consider augmenting this service with complementary digital skills programming, such as workshops or educational speakers. These programs should be developed with consideration to

Recommendations

covered population needs within the Town of Sandwich as well as broader community or municipal goals.

One-to-one offerings, along with other digital equity courses and programs, should be well-publicized online, in paper formats, and through the town's government access channels. It would be beneficial for both entities to connect directly with local organizations supporting covered populations to let them know of this service.

Community members shared innovative ideas that could be employed by municipal or community organizations with one-to-one service provision. A few examples are below:

- Very small group classes that are welcoming and geared toward providing individualized attention to device use. Classes could include accomplishing a very specific task, such as taking and sending a photo to a loved one.
- Meeting community members "where they are at" with one-to-one digital skills offerings, such as providing a pop-up support service at a popular place of gathering. This will help to reduce any perceived stigma associated with seeking help and incorporate added individual benefits by providing an opportunity for socialization and community-building.

- Home technology audits to help individuals holistically understand the technologies they have and the skills they need to achieve personal goals.
- Increased drop-in hours for one-to-one support and/or a regularly operating digital support hotline.

Implementation of one-to-one programming should not fall to one entity alone – there are a number of municipal, community-based, private, and health/human services agencies that should be part of this ecosystem. Coordination of programming can be fostered by developing a stronger digital equity network, described further below.

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 Sandwich that address digital skills and literacy. However, throughout the community engagement process, residents frequently lacked awareness that some level of the support they sought already existed in town or nearby. 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 Sandwich should familiarize themselves with digital equity

Recommendations

offerings so they can properly direct their constituents to already-existing programs. Many of these programs are outlined previously in *Digital Equity Assets*; this inventory of digital equity service providers should be retained, updated, and distributed across relevant entities. The development of a digital equity network within the Town of Sandwich 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 Sandwich may include key digital equity assets such as the Council on Aging & Center for Active Living, Sandwich Public Library, Sandwich Public Schools, Upper Cape Cod Regional Technical High School, Sandwich Partnership for Families, Sandwich for All, Sandwich Community TV, the Sandwich Commission on Accessibility, and private providers such as

Mobile Mac Doctors. A strong digital equity network may also involve representation from or streamlined communication with organizations that support covered populations – such as local congregations, 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 Sandwich. As this work continues across Cape Cod, there may be opportunities for greater regional networking.

Intentionally integrate digital equity and social service goals

Entities across Sandwich 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. Municipal entities and community organizations should provide services that

advance both social service and digital equity goals, acknowledging that the two often go hand-in-hand. For example, the library could host sessions on completing online immigration forms in partnership with immigration attorneys or legal service providers, partnering with local congregations, schools, and human services organizations to reach this target population. As another example, the Council on Aging could host workshops using MyChart in partnership with a healthcare agency such as Cape Cod Healthcare or local community health centers.

Entities across the Town of Sandwich with access to digital resources 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-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 trusted, 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 workshops and facilitate community-wide actions to address internet safety concerns

Concerns around safety, privacy, and security arose as a major theme throughout the community engagement process. One-to-one tech offerings and other digital programs throughout town should always include security and safety as a core value of service provision. For example, teaching a resident how to use a financial banking app should also include components of safe online banking and scam identification.

Regular workshops covering online safety should be continued, expanded, or introduced in a coordinated fashion through entities such as the library, Council on Aging, schools, and local community organizations. 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 one-on-one conversations.

Involving public safety officers in addition to those with technical expertise is often helpful in providing this service. Sandwich community members expressed gratitude to the Sandwich Police Department for flagging scams on their social media. This activity should continue, and the town

Recommendations

should consider opportunities to coordinate outreach to vulnerable community members when a local scam is identified.

Generally, residents would benefit from increased communal education around digital safety and security that is practical, grounded in access to essential services and security tools (such as helping individuals install antivirus software), and unintimidating 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 Sandwich 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 Sandwich should explore opportunities to introduce digital navigators into service

provision, which could include augmenting current staff with appropriate training. The Town of Sandwich can play a leadership role in initiating a regional digital navigation program, which would yield increased benefits and efficiencies.

COMMUNITY

Build on existing community commitment to accessibility and equity

There are many municipal and community-based entities, individuals, and groups across Sandwich that are already committed to ensuring that essential services and resources are provided in an accessible and equitable way. Integrating digital equity considerations into ongoing accessibility and equity efforts will be key to achieving both digital equity and broader diversity, equity, inclusion, and belonging (DEIB) goals. Assets identified in “*Shared commitment to accessible, equitable, and vibrant community*” under *Digital Equity Strengths* should continue to consider digital equity as a core value in advancing other DEIB efforts. It is also worth noting that entities who represent, serve, or who have built trusted relationships with covered populations – such as congregations, community groups, or healthcare agencies – have a critical role to play in advancing the digital equity goals outlined within this plan.

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, while municipal entities will want to take advantage of digital tools (such as the town website, e-newsletters, social media) across public communications, the Town could provide literature, workshops, or other tutorials on using these digital tools to ensure residents are well-equipped to access important town updates. This could also take the form of a video, which could be linked within a Council on Aging digital newsletters or broadcast on Sandwich Community TV. Generally, Sandwich Community TV is a strong asset in this area; municipal and community-based entities should partner with Sandwich Community TV to consider creative or innovative opportunities to bring digital equity resources and information to community members in need.

Another example would include the development of a more accessible platform, function of the website, or alternative tool to connect residents with municipal services.

Municipal entities should be aware of potential barriers that covered populations may have accessing information and ensure these are addressed as outreach strategies are developed. Outreach strategies that incorporate diverse platforms for communication and feedback will help bridge

such barriers and ensure broad engagement. Community members also expressed an interest in seeing municipal and community-based entities better utilizing popular social spaces as a means of distributing information – such as hair salons, cafes and restaurants, and local retailers.

Understanding how to better operationalize digital equity in municipal and community-based communications may require training from outside sources. Sandwich Public Schools identified a need to better understand accessibility concerns and solutions related to proper creation of PDF documents, which are frequently used by school staff and administration. This is likely not a problem faced by school staff alone; step-by-step training sessions could be offered to staff at the schools and the town more broadly so those responsible for creating digital materials are aware of how to incorporate accessibility features.

Center digital equity in municipal and community-based services

Digital equity values must be baked into all levels of municipal planning, programming, and policy. 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 Sandwich and partnering agencies to strengthen existing services, to train staff and volunteers, and to develop best

Recommendations

practices and universal policies for the future. A few solutions are provided below:

- *Digital Equity and Technical Training for Practitioners:* When digital equity issues arise, community members often lean on municipal and community-based staff and volunteers to resolve emergencies or for informal tech support. It is important to remember that not all staff and volunteers are equally equipped to provide this level of service. Municipal and community-based entities should prioritize technical education for staff and volunteers, so they are empowered to best support residents. Such a training could be offered across multiple towns and entities and would provide the educational foundation required for practitioners to better support residents in navigating the digital landscape effectively.
- *Program Sign-Ups and Outreach:* 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. Outreach for programs that advance digital equity should be conducted with online and in-person strategies. This acknowledges barriers faced by members of the community in completing online sign-ups or learning about activities due to connectivity or skill-based barriers.
- *E-Government Services:* Town digital platforms should be efficient and user-friendly, including easy form submission and management to streamline interactions with town services. As our digital world progresses, the Town of Sandwich should continue to expand digital services to maximize efficiencies, but should provide training and support to residents throughout this transition.
- *Program and Civic Participation:* Town and community-based entities should strive to provide an effective balance between in-person, hybrid, and remote offerings, developing an understanding for which practice is best suited for each individual circumstance. For example, providing remote access to town meetings allows for greater community involvement and ensures that all can participate, regardless of physical location or ability. However, hybrid or fully remote meetings or programs should be accompanied by clear technical support or guidance to ensure all are able to participate. For example, listing a staff contact who can help if someone is having a technical difficulty logging into a virtual meeting.

Foster communal language on the internet and technology

Increasing digital literacy will require building a shared digital language that will help residents better understand existing services and resources, identify where they must build their own skills and literacy, and support their communications with internet service and technology providers. Helping community members better understand the language around the internet and technology will generally empower those who 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.

Develop methods and structure to measure progress

As further described below in *Measuring Success*, the Town of Sandwich should consider what constitutes success within the implementation of specific recommendations above, as well as the future execution of this digital equity plan. A structured feedback or measurement system will help the Town of Sandwich to continuously refine digital services to meet the needs of all community members effectively.

Entities assigned with implementation activities 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 Sandwich may look to previous 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 Sandwich alone, the Sandwich 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 Sandwich and across the region. While digital navigation was not a significant focus of this

Recommendations

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, as this will be key to building new services into the future.
- Leveraging existing partnerships intentionally baking digital equity conversations into these existing platforms may provide a starting place for increased peer-learning and service building discussions.

Recommendations

Table 4: Table of Recommendations

Category	Recommendation	Action	Champion	Funding	Page
CONNECTIVITY	Organize and advocate for improved internet service provision	Explore creating a platform for residents to share internet challenges and track provider performance, possibly through a town committee or coalition.	Town administration, town planning, selectboard, community advocates	N/A	41
CONNECTIVITY	Encourage internet service provider competition	Encourage more providers to increase affordability, speeds, and quality, especially with fiber connections.	Town administration, town planning, selectboard, community advocates	N/A, but participation in BEAD challenge process will support this Recommendation.	41
CONNECTIVITY	Organize and advocate for improved internet service provision	Explore creating a platform for residents to share internet challenges and track provider performance, possibly through a town committee or coalition.	Town administration, town planning, selectboard, community advocates	N/A	41
CONNECTIVITY	Encourage internet service provider competition	Encourage more providers to increase affordability, speeds, and quality, especially with fiber connections.	Town administration, town planning, selectboard, community advocates	N/A, but participation in BEAD challenge process will support this Recommendation.	41
CONNECTIVITY	Promote public Wi-Fi availability	Expand public Wi-Fi in key areas to support residents, tourists, and businesses, considering safety concerns during emergencies.	Community anchor institutions (library, COA, housing authority, schools)	Municipal Digital Equity Implementation Program, MAPC Apartment Wi-Fi Program, and Residential Retrofit Program. Will become an ongoing expense.	42

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
CONNECTIVITY	Promote public Wi-Fi availability	Map public Wi-Fi availability and create a user-friendly resource for residents.	Town administration, town planning, community advocates.	Municipal Digital Equity Implementation Program.	42
CONNECTIVITY	Promote public Wi-Fi availability	Expand public Wi-Fi in key areas to support residents, tourists, and businesses, considering safety concerns during emergencies.	Community anchor institutions (library, COA, housing authority, schools)	Municipal Digital Equity Implementation Program, MAPC Apartment Wi-Fi Program, and Residential Retrofit Program. Will become an ongoing expense.	42
CONNECTIVITY	Promote public Wi-Fi availability	Map public Wi-Fi availability and create a user-friendly resource for residents.	Town administration, town planning, community advocates.	Municipal Digital Equity Implementation Program.	42
DEVICES	Coordinate public computing device offerings through partnerships	Explore lending programs for devices, potentially using recycled devices and partnerships between town entities to maximize resources. Consider regional collaborations to reduce barriers.	Sandwich Public Library and Sandwich Public Schools, Sandwich IT Department, town procurement staff, with support from regional and municipal partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	42
DEVICES	Coordinate public computing device offerings through partnerships	Explore lending programs for devices, potentially using recycled devices and partnerships between town entities to maximize resources. Consider regional collaborations to reduce barriers.	Sandwich Public Library and Sandwich Public Schools, Sandwich IT Department, town procurement staff, with support from regional and municipal partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	42

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
DEVICES	Monitor and promote hotspot lending programs	Coordinate hotspot lending programs across town entities and educate staff and community organizations about availability.	Sandwich Public Library and Sandwich Public Schools, with support from regional and municipal partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	43
DEVICES	Monitor and promote hotspot lending programs	Coordinate hotspot lending programs across town entities and educate staff and community organizations about availability.	Sandwich Public Library and Sandwich Public Schools, with support from regional and municipal partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	43
DEVICES	Solutions to address device obsolescence and waste	Utilize programs like Fixit Clinic to repair broken devices and consider communal advocacy for financial assistance programs.	Sandwich Public Library with support from regional and municipal partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	44
DEVICES	Solutions to address device obsolescence and waste	Utilize programs like Fixit Clinic to repair broken devices and consider communal advocacy for financial assistance programs.	Sandwich Public Library with support from regional and municipal partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	44
DIGITAL SKILLS AND LITERACY	Promote existing and offer new one-to-one, in-person support services	Offer one-to-one tech support, consider small group classes, and conduct home technology audits.	Sandwich Council on Aging/Center for Active Living, Sandwich 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.	44
DIGITAL SKILLS AND LITERACY	Develop a digital equity network to strengthen public	Create a network of key entities to coordinate digital equity efforts, enhance	Town administration, building off of	Explore funding opportunities as needed.	45

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
	service and awareness	awareness, and address resource gaps.	municipal project kickoff team.		
DIGITAL SKILLS AND LITERACY	Intentionally integrate digital equity and social service goals	Incorporate digital equity concepts into provision of essential services.	Sandwich Council on Aging/Center for Active Living, Sandwich Public Library, with partnership from community-based organizations serving covered populations.	Explore funding opportunities as needed.	46
DIGITAL SKILLS AND LITERACY	Provide workshops and facilitate community-wide actions for internet safety, privacy, and security concerns	Offer workshops covering online safety and involve public safety officers in identifying and addressing scams.	Sandwich Council on Aging/Center for Active Living, Sandwich Public Library, public safety, and interested community based organizations.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	47
DIGITAL SKILLS AND LITERACY	Explore digital navigation models and offerings	Consider introducing digital navigators to provide technical support and build a stronger digital equity network.	Town administration, Sandwich Public Library, Sandwich Council on Aging/Center for Active Living, and Sandwich Public Schools.	Explore future state and federal funding opportunities.	48
COMMUNITY	Build on existing community commitment to	Integrate digital equity into ongoing accessibility efforts	Town administration, town planning, selectboard, Sandwich	Explore funding opportunities as needed.	48

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
	accessibility and equity	and involve trusted entities in supporting digital equity goals.	Commission on Disability, and other community entities.		
COMMUNITY	Center digital equity in municipal and community-based communications	Diversify outreach strategies, provide training on accessibility concerns, and ensure sign-ups for programs are accessible.	Town administration and municipal entities, Sandwich IT Department, and community groups	Explore funding opportunities as needed.	49
COMMUNITY	Center digital equity in municipal and community-based services	Embed digital equity into municipal planning, train staff to support residents, and ensure service sign-ups are accessible.	Town administration and municipal entities, Sandwich IT Department, and community groups	Explore funding opportunities as needed.	49
COMMUNITY	Foster communal language on the internet and technology	Offer workshops and educational campaigns to improve residents' understanding of digital terminology.	Build a shared digital language through workshops, courses, and community education.	Town administration, Sandwich Public Library, Sandwich Council on Aging/Center for Active Living, Sandwich for All, local community-based organizations, and community advocates.	50
COMMUNITY	Develop methods and structure to measure progress	Define goals for each recommendation and monitor progress through a digital equity network.	Municipal and community entities.	Explore funding opportunities as needed.	50
COMMUNITY	Support regional collaboration	Explore opportunities for regional partnerships to enhance digital equity services and resources.	Town of Sandwich leadership in partnership with entities across Barnstable County.	N/A.	50

Recommendations

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 Sandwich 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 Sandwich 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 Program. The Cape Cod Commission is available to continue supporting the Town of Sandwich 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.

Funding Opportunities

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 Sandwich:

- 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)

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/>

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 Sandwich should learn about how local qualifying health centers are operationalizing this funding to support residents of Sandwich and consider opportunities for partnership.

As additional Partnerships Programs are announced, the Town of Sandwich 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 unserved 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

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

be in the challenge process, which provides an opportunity to dispute coverage availability, as characterized for funding eligibility.

Sandwich 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. Several ISPs submitted applications for GAP Networks Grant Program funding as a way to provide service to unserved and underserved locations in several towns across the Cape. It does not appear that Sandwich was among these towns for round one applications, but if presented with an opportunity in the future, the town should consider lending its support to such an application.

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 Wi-Fi 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.

Other Cape towns have been competitive for this funding, with three grants over the 2022 and 2023 funding cycles. Sandwich should consider the opportunities presented through this program, including development of public wireless networks in walkable village centers and recreational areas.

Funding Opportunities

LEAD FOR AMERICA'S AMERICAN CONNECTION CORPS

MBI has partnered with the American Connection Corps program offered through Lead for America 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 Sandwich may be well-positioned to support this effort given the completion of this digital equity plan.

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 Sandwich should identify entities to support

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

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

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.

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

Entities across the Town of Sandwich or that benefit the Sandwich 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 Sandwich 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 in order to ensure that these activities are successful on a community-wide level. The Town of Sandwich 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 Sandwich 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.
- Data collection: as detailed in *Current State of Digital Equity* section, the Town of Sandwich should continue to track connectivity and demographic data as it relates to digital equity. The Town of Sandwich should also consider opportunities for targeted data collection that advances that which is already known or to fill information gaps.

Advancing Digital Equity in Sandwich

- Bringing all key entities and populations into the fold of digital equity planning and implementation: the Town of Sandwich has a number of assets that could be further leveraged in digital equity planning and implementation, such as health and human services agencies. 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 Sandwich

Throughout the planning process, community members, leaders, and organizations across the Town of Sandwich demonstrated pride in a commitment to advancing equity and accessibility broadly across municipal and community services. It is unsurprising that the community has also taken a keen interest in the role of digital equity as a component to fostering a more equitable society, democracy, and economy. Advancing digital equity in Sandwich 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.

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



Sandwich Digital Equity Plan

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Digital Equity Plan

Town of Sandwich: Community Workshop

December 6, 2023 at 5:30pm

Sandwich Center for Active Living



CAPE COD
COMMISSION

MEETING SUMMARY

Welcome, Introductions & Project Overview

Cape Cod Commission (Commission) staff and Town of Sandwich 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:

- Council on Aging/Center for Active Living
 - Beginner computer program
 - Staff support with tech questions
- Sandwich Public Library
 - Tech support from staff
 - Hotspot loaners
- Sandwich Public Schools & student Chromebooks
- MassHire
- Sandwich Chamber of Commerce and Cape Cod Chamber of Commerce

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

- Gadgets Made Easy
- SCORE
- Mobile Mac Doctors
- We Can
- Local businesses who have free Wi-Fi onsite, such as Dunkin' Donuts and cafes
- Customer support from Comcast/Xfinity, T-Mobile – better when it's face-to-face/ storefront
- YouTube courses and tutorials
- Family support

Barriers & Opportunities Exercise

Participants broke up into three 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 digital equity identified by participants include:

Connection

- Lack of competition and choice with internet service provision.
- Quality issues with current internet service and cellular service providers.
- Inconsistent quality across town. Geographic and infrastructural barriers.
- Customer service issues when problems do arise.
- Affordability and cost barriers with internet service.
- Connectivity issues posing concerns with business operations, professionalism, volunteerism, gaining skills, and socialization.
- Impact of connectivity issues in case of emergency.

Devices

- Lack of awareness of needed devices to achieve success in using the internet. For example, what modems or computers are really needed (and when are customers getting taken advantage of).
- Disparities between operating different types of devices. Skills building gaps between different technologies – Apple v. Android, for example.

Literacy and Skills

- Poor connection itself is a barrier to achieving greater literacy.
- Lack of understanding on where to turn to for help, especially for seniors or those who are new to technology.
- Concerns around safety and trust with digital world, often stemming from a lack of skills.
- Lack of understanding on trouble shooting tech issues and other usability concerns.
- Finding useful and affordable help.

Community

- Lack of community education and shared strategy with regards to digital equity holistically.
- Navigating town services in an increasingly digital world – municipality can improve both digital communications, digital resources, and the ability of all communities to take advantage of digital resources.

Example opportunities for achieving greater digital equity into the future include:

Connection

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

- Opportunities to coordinate planning for new builds and infrastructural construction with broadband.
- Grant opportunities that could be accessed with greater municipal coordination.
- Opportunities to coordinate more affordable cable and internet through increased competition, which will yield better, more reliable, and more accountable products.

Devices

- Device loan program.
- Opportunities to advocate for devices that last longer.
- Opportunities to limit learning curves with devices before purchase through community education.
- Opportunities to encourage more equitable access to products and services through affordability programs.

Literacy and Skills

- Opportunities to encourage customer service or technical support in a face-to-face environment. This will help mitigate barriers such as language (ESL) or literacy (lack of technical awareness).
- With a lack of technology/ISP storefronts on Cape Cod (for example, no Apple store), it would be great to bring providers here for technical support days or find other local solutions (like Mobile Mac Doctors, for example).
- Opportunities for the community to come together to create a shared language and understanding around digital equity.
- Opportunities to expand programming at the library.
- Opportunities for increased “drop-in” support hours for the internet and technology across town or a hotline that could be accessed to get live help.
- Increase or create educational programs around hacking, scamming, and other security concerns. Incorporate real tech solutions within these programs (like helping folks install McAfee).
- Targeted focus on helping the “un-tech savvy” become tech savvy.
- Building connections between the Center for Active Living programs and local youth for intergenerational education.
- Local digital navigators.
- Tech kiosks at popular places of gathering.

Community

- Sandwich Community TV can be an asset to spread information about digital equity opportunities.
- The geography of Sandwich promotes working families and jobs.
- Opportunity to develop a municipal committee to continue driving efforts across town.
- Importance of developing an increased understanding of what opportunities and resources exist.
- Thinking creatively about providing information about digital equity resources at popular community spaces.
- Entities across town working together to assess, publicize, and triage threats to digital equity – such as scam alerts.

Visioning and Goals Exercise

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

Commission staff facilitated two exercises to inform the vision and goals for the digital equity plan. Participants were first asked to share words or brief statements that resonated in terms of their vision for achieving the four main pillars of digital equity. Responses included:

Connectivity

- Everyone, no exception
- Universal
- Stable
- Reliable
- Affordable
- Quick, fast, speedy.
- Competition
- Analysis
- Troubleshooting
- Funding and grants
- Accountable
- Reliable

Devices

- Interconnectivity
- Upgradable
- Easy and simple to use.
- Uniform across platforms.
- Indispensable
- Affordable
- Education
- Accessible
- New
- User-friendly

Skills and Literacy

- Grow in spite of age and new-ness
- No need to re-learn
- Education and training
- Uniformity
- Safe
- Simplicity
- Accessible language
- Robust

Community

- Planning
- Continuity
- Unity
- Resiliency
- Mitigation of redundancy

Participants were then asked to respond to a series of four questions related to vision and goal setting as follows:

What would Sandwich look like if it was digitally equitable?

- People would understand available resources, know about the challenges, and be engaged.
- Improved quality of life for all. For example, more connectivity to healthcare.
- Easy access to the internet and technology, such as more places with Wi-Fi.
- Everyone has access to devices and knows how to use it to their own abilities.
- Sandwich has a more reliable network.
- Sandwich is more attractive to businesses because the broadband network has improved.
- Sandwich has a shared culture around connectivity and digital equity.
- Sandwich has the financial resources to achieve digital equity goals.

How will this vision be achieved?

- Involving internet service providers
- Public housing should have the same access to services as others throughout the community.
- Transportation will be offered to places where folks can receive essential services within digital equity (example: better transportation to the library).
- Finding grants and funding to cover essential programs.
- Creating an actionable game plan.
- Having municipal and community leadership involved in strategy and solutions.

What core principles should guide the plan?

- Reliable phone service
- Ability to communicate
- Equity
- Building for the future
- Expert guidance
- Shared community solutions
- People-focused solutions
- Transparent communications across all entities
- Understanding that the future involves new technologies like AI
- An understanding of “where we are going” and “where we would like to go”

How do we know we are making progress or achieving our goals?

- Fewer complaints because the service is better.

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.

Sandwich Municipal Digital Equity Media Toolkit

How to use this toolkit

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

Newsletter Copy

Text to copy and paste into your newsletter.

Long Version

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

The Town of Sandwich 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 December 6, 2023.

Sandwich Digital Equity Community Workshop
December 6, 2023, 5:30 PM
Center for Active Living
70 Quaker Meetinghouse Road
Sandwich, MA 02644

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.

Short version

The Town of Sandwich 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 December 6th. The workshop will take place at 5:30 PM at the Center for Active Living, 70 Quaker Meetinghouse Road.

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

Social Media



In today's interconnected world, access to technology and the internet isn't just a luxury, it's a necessity. The Town of Sandwich is working with the Cape Cod Commission to form a municipal digital equity plan. Help identify opportunities to advance digital equity in Sandwich: join us at a Community Workshop on December 6, 2023 at 5:30 PM at the Sandwich Center for Active Living. Learn more: <https://cccom.link/sandwichDE>

[Download Graphic - Instagram, version 1](#)



Help advance digital equity in Sandwich. Join the Town of Sandwich and the Cape Cod Commission at a community workshop on December 6 at 5:30 PM to help identify opportunities to bridge the digital divide.

Digital Equity Community Workshop
December 6, 2023, 5:30 PM
Sandwich Center for Active Living
70 Quaker Meetinghouse Road, Sandwich, MA 02563

[Download Graphic – Instagram, version 2.](#)

Flyer



Together, we can bridge the digital divide, creating a fair and inclusive future for all.

Sandwich Digital Equity Plan

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

 Connection Affordable, fast, reliable, accessible.	 Devices Adequate, needs-appropriate, affordable, accessible.	 Literacy/Skills Ability to use technology, functionality, trust, privacy concerns.
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 **Join us at a community workshop to help identify opportunities to advance digital equity in Sandwich.**

Sandwich Digital Equity Community Workshop
December 6, 2023 | 5:30 PM
Sandwich Center for Active Living
70 Quaker Meetinghouse Road
Sandwich, MA 02644

For details, visit the link or call: www.cocap.com/cedep

  This project was funded by the Massachusetts Broadband Institute as part of the State's collaboration under the Municipal Digital Equity Planning Program. Funding was provided by Massachusetts MBI State Fiscal Recovery Funds.

[Download Flyer - PDF](#)

Residents Invited to Attend Sandwich Digital Equity Community Workshop

FOR IMMEDIATE RELEASE (DATE) - Do you experience problems with internet connection or speed? Do you have a reliable device to connect you to the internet? Are you confident using devices and online platforms to access services like mobile banking and telehealth?

The Town of Sandwich is working with the Cape Cod Commission to form a municipal digital equity plan to assess the digital divide across the community and to identify opportunities to advance digital equity.

Community participation is a critical component of this planning effort. Residents, businesses, and organizations are invited to attend an upcoming workshop to learn about the digital equity plan and contribute to the development of the plan through group exercises and conversations. Discussion topics will include: internet availability, affordability, and reliability; technology and devices necessary for civic, social, and economic life; and skills to participate safely, confidently, and effectively online. Light refreshments will be served. -

Sandwich Digital Equity Community Workshop
December 6, 2023 | 5:30 PM
Center for Active Living
70 Quaker Meetinghouse Road, Sandwich

Once finalized, the Municipal Digital Equity Plan will prepare the Town of Sandwich 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.

For more information, please visit: <http://www.capecodcommission.org/our-work/sandwich-digital-equity-plan/>

###

Town of Sandwich 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 178 total responses from the Town of Sandwich through December 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 178
8 In what Massachusetts municipality do you live: Sandwich	N 178
9 Do you have internet service in your home?	N 178
Yes	148
No	30
10 Who is your internet service provider?	N 146
AT&T	1
Comcast Cable Corporation	84
T Mobile Usa	2
Verizon Communications	4
Xfinity	55
11 What kind of internet service do you have at home? (all that apply)	N 181
A data plan for a smartphone hotspot or tablet?	43
Home wireline connection, cable, fiber, DSL, etc?	135
I don't know?	1
Satellite internet?	2
12 How well does your home internet service work?	N 142m
Good enough to meet my household's needs	87
Not good enough to meet my household's needs	54
I don't know	1
13 Is your home internet service bundled with other services such as telephone or tv?	N 144
No	47
Yes	97

* Some questions were removed to protect personally identifiable information.

14 How much do you pay for the internet every month (bundle)?	Average \$127
15 How much do you pay for the internet every month?	Average \$83

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



16	How hard is it for you to pay your internet bill?	N 135
	Not at all hard.....	22
	Not too hard	42
	Somewhat hard	63
	Very hard	8
19	Have you heard about the Affordable Connectivity Program (ACP) that provides discounted internet service for low income households?	N 133
	Yes.....	50
	No.....	80
	I don't know.....	3
20	Does everyone in your household have access to the computer devices they need to meet their everyday needs for internet use?	N 132
	Yes.....	124
	No.....	8
21	Which of the following devices do you use most of the time to connect to the internet? (all that apply)	N 349
	Desktop Computer.....	49
	Laptop Computer.....	96
	Tablet or Similar Device.....	85
	Other	20
	AppleTV/Smart TV/ TV-Streaming	7
	Kindle, smart phone.....	2
	Medical device	1
	Security cameras	1
	Smart devices	5
22	How much would you be able to pay for a laptop or desktop computer?	N 127
	\$0-\$50	4
	\$50-100	--
	\$100-150	11
	\$150-250	18
	\$250-500	37
	\$500-1000.....	37
	More than \$1,000	20
23	Are you able to regularly use the internet for online activities?	N 126
	Yes.....	119
	No.....	7
24	Please rank the level of difficulty for what you use the internet for:	
	General internet searching	N 113

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



Easy	101
Not easy	12
Hard	--
Health care or telehealth services?	N 109
Easy	76
Not easy	30
Hard	3
Participating in your local community?	N 109
Easy	76
Not easy	27
Hard	6
Searching and applying for a job?	N 86
Easy	73
Not easy	13
Hard	--
Applying for benefits or resources for you or your family	N 101
Easy	40
Not easy	14
Transportation information	N 106
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 6
Searching and/or applying for benefits or resources for you and your family	1
General internet searching	2
Health care or telehealth services	1
Something else	1
Participating in your local community	1

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



26	What kind of digital skills support would you be most interested in?	N 111
	A do-it-yourself training module	60
	Online classes	33
	In person support from a friend or instructor	11
	In person classes	7
27	How concerned are you about internet safety?	N 120
	Not at all concerned	3
	Not very concerned	4
	Somewhat concerned	39
	Very concerned	74
28	What are you most concerned about? (all that apply)	N 310
	That My Data Could Get Stolen Or Used Without My Consent	104
	That I Or A Loved One Could Get Scammed Or Tricked	80
	That I Could Be Tracked Or Surveilled	74
	That I Or A Loved One Could Be Harassed Or Abused Online	47
	Security practices by others.	1
	Someone could pretend to be me or members of my family	1
	DDoS, Phishing	1
	Ransomware.....	1
	Other	1
29	Are you aware of tools or resources you can use to stay safe online?	N 6
	Yes, I have tools and resources I use to stay safe online	6
30	How accessible are online government services like benefits portals, RMV services, or paying for permits or tickets to you?	N 120
	Very accessible	53
	Somewhat accessible	61
	Not very accessible	4
	Not at all accessible	2
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 118
	Very well.....	35
	Somewhat well	74
	Not too well	8
	Not well at all	1
32	What is your age?	N 120
	25 to 34	1
	35 to 44	4
	45 to 59	30

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



60 to 74	67
75 or older	17
Prefer not to answer	1

33 What is your gender identity? N 120

Man	57
Woman.....	55
Non-binary.....	1
Prefer not to answer	7

34 How many people including yourself currently live in your household? N 120

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

1.....	25
2.....	58
3.....	15
4.....	13
5.....	2
6.....	2
7.....	1

35 How many children under age 18 currently live in your household? N 95

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

0.....	76
1.....	10
2.....	4
3.....	1
4.....	1
Prefer not to answer	3

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



36	What is the highest level of school you have completed or the highest degree you have received?	N 120
	High school graduate (Grade 12 with diploma or GED certificate)	14
	Four-year college or university degree/Bachelor's degree (e.g., BS, BA, AB)	44
	Two-year associate degree from a college or university	15
	Postgraduate or professional degree, including master's, doctorate, medical or law degree (e.g., MA, MS, PhD, MD, JD)	41
	Prefer not to answer	6
37	Are you of Hispanic, Latino or Spanish origin such as Mexican, Puerto Rican or Cuban?	N 120
	No	104
	Yes	3
	Prefer not to answer	13
38	What are you most ? Which of the following best describes your race? (all that apply)	N 120
	White Or Caucasian	103
	Black Or African American	3
	Asian Or Asian American	1
	Native American, American Indian, Alaska Native	1
	Latin.....	1
	American	2
	Prefer Not To Answer	13
39	Do you belong to a North American Indigenous, Native, or Tribal group?	N 119
	Yes	1
	No.....	104
	Prefer not to answer	14
40	What is your total annual household income from all sources and before taxes?	N 119
	Less than \$22,000	1
	\$22,000 to \$29,999.....	1
	\$30,000 to \$36,999.....	5
	\$37,000 to \$44,999.....	5
	\$45,000 to \$52,999.....	12
	\$53,000 to \$59,999.....	3
	\$60,000 or more.....	58
	Prefer not to answer	34
41	Do you identify as a person with a disability?	N 119

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



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

Yes	13
No	99
Prefer not to answer	7

42 Do you have difficulty in any of the following areas? N 17
Select all that apply

Communicating For Example Understanding Or Being Understood	2
Prefer Not To Answer	5
Remembering Or Concentrating	2
Seeing Even If Wearing Glasses	1
Walking Or Climbing Steps	7

43 Do you identify as a member of the LGBTQIA community? N 119

Yes	1
No	106
Prefer not to answer	12

44 Did you serve on active duty in the US Armed Forces? N 120

Yes	13
No	100
Prefer not to answer	7

45 Do you live in affordable housing? N 120

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

Yes	1
No	115
Prefer not to answer	4

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



46 What are Where did you hear about this survey? (all that apply) N 120

From A Government Website Email List Flyer Or Other Outreach	48
From An Organization S Website Email List Flyer Or Other Outreach	41
From A Community Meeting Community Anchor (Library, School, Other).....	6
From A Friend Colleague Or Acquaintance	4
Other	18
Email.....	5
News/Newspaper	8
Text.....	1
Social Media.....	2
Other	2

47 Which local institution or organization did you hear about this survey from? N 40

OpenCape.....	18
email from you	1
Cape Cod Technology Council	1
Not sure	1
Town of Sandwich	8
Xfinity	1
Library	1
Facebook.....	1
Sandwich Facebook page	1
MBI	1
Cape Cod Times.....	2
WCAI Radio Station	1
www.capecod.com new story	1
Sandwich MBI task force/working group.....	1
Don't remember	1

48 Are you using a public Wi-Fi connection to complete this survey? N 115

Yes	11
No.....	103
I don't know.....	1

Town of Sandwich Results

Massachusetts Statewide Digital Equity Survey



Speed test results

N 64

		DOWNLOAD (Mbps)			UPLOAD (Mbps)		
TOWNWIDE	79	173.9 Median			12.71 Median		
		220.2 Average			16.7 Average		
ZIP	# Tests	Average	Max	Min	Average	Max	Min
02537	23	189.9	593.5	0.0	15.5	40.6	0.0
02644	8	338.7	541.0	93.7	17.0	23.3	6.0
02563	48	216.6	656.0	2.8	17.4	40.0	0.0

Town of Bourne:

Data Sources Reviewed for Existing Conditions

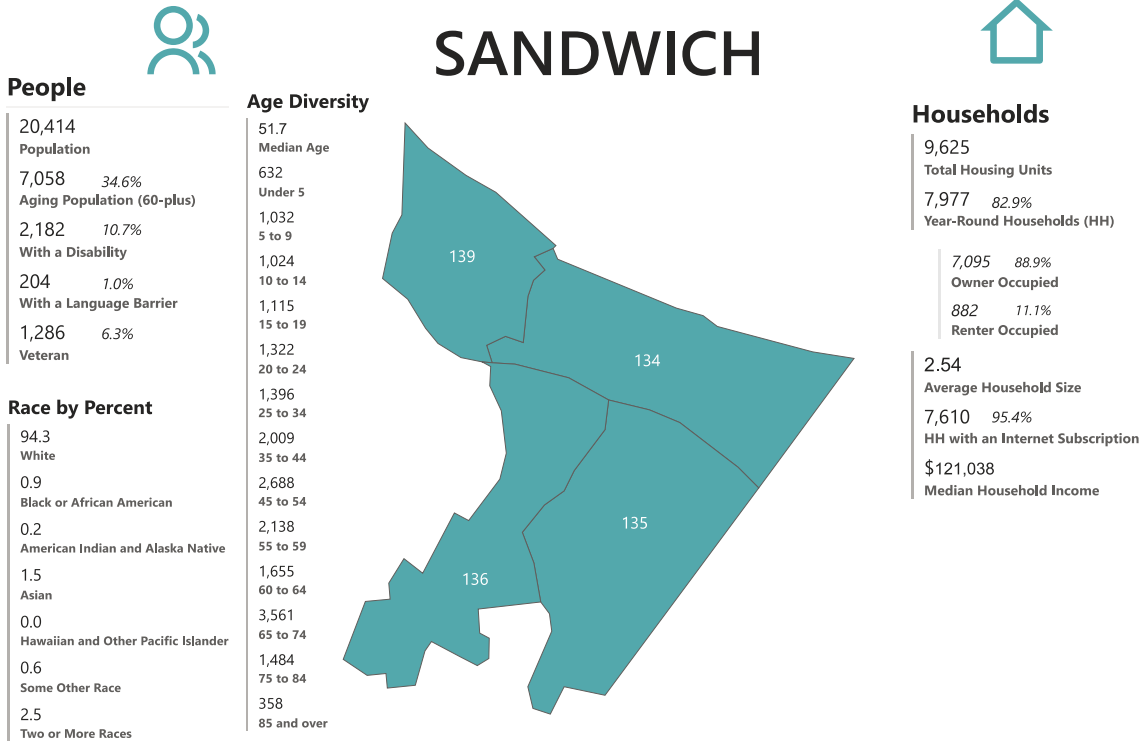
American Community Survey, 2022 5-year Estimate Tables

- 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

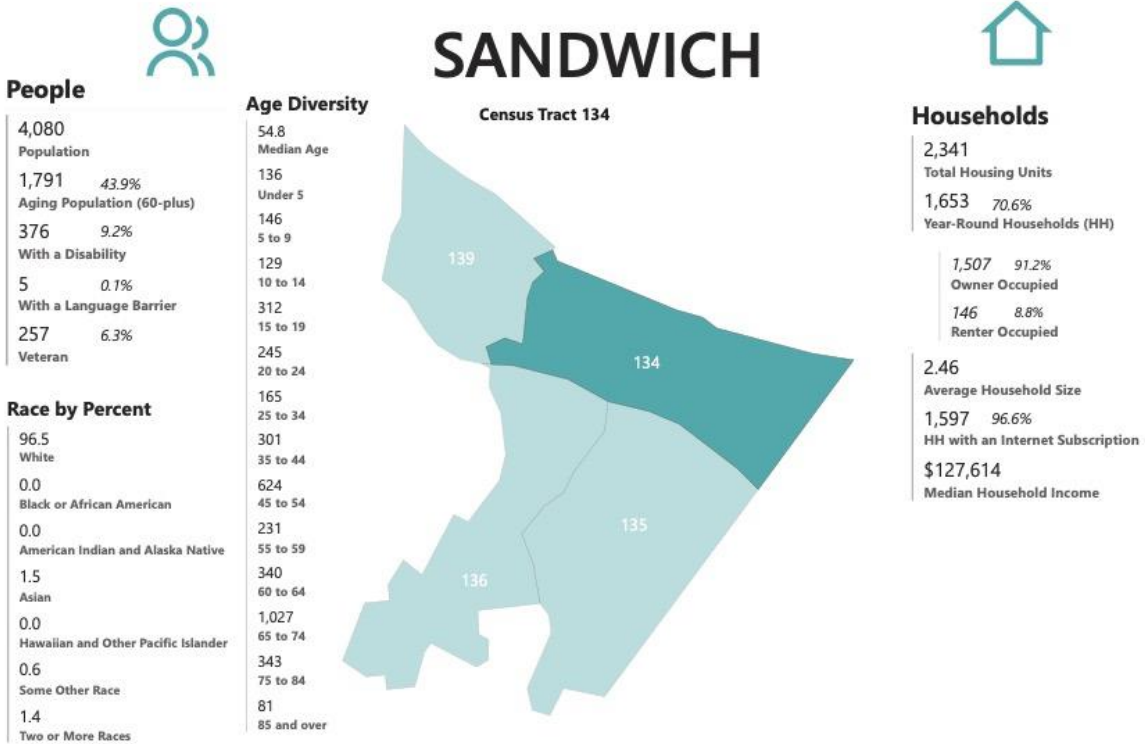
Other Sources

- 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

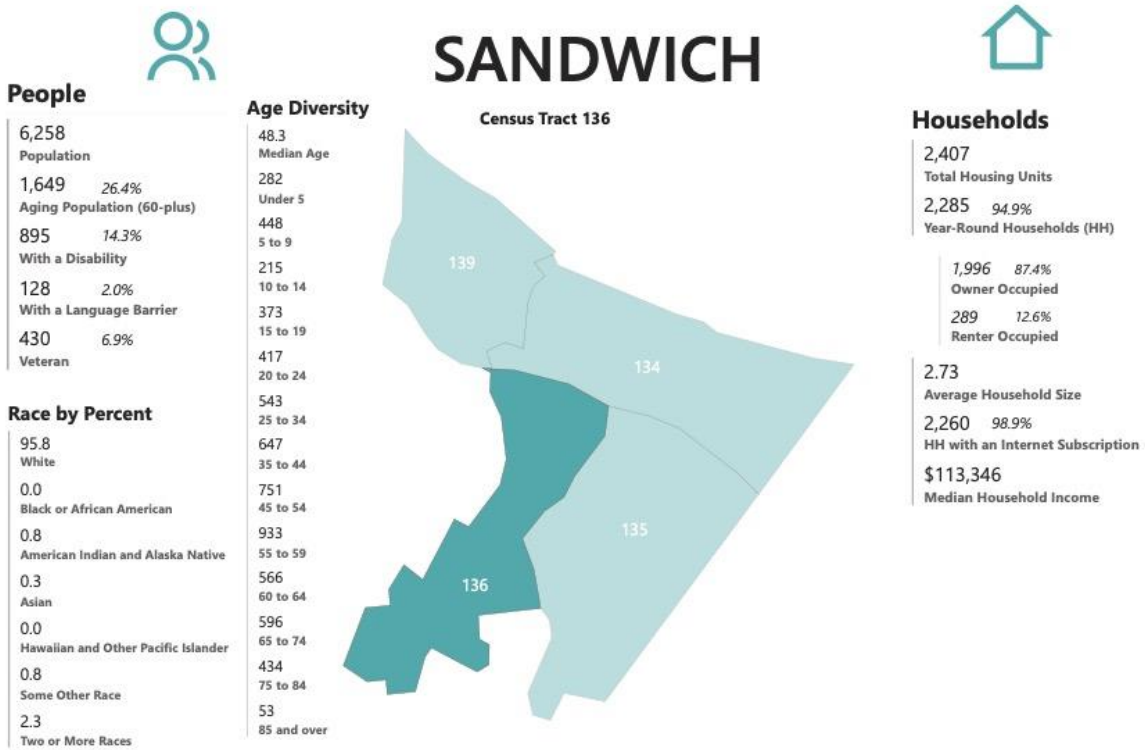
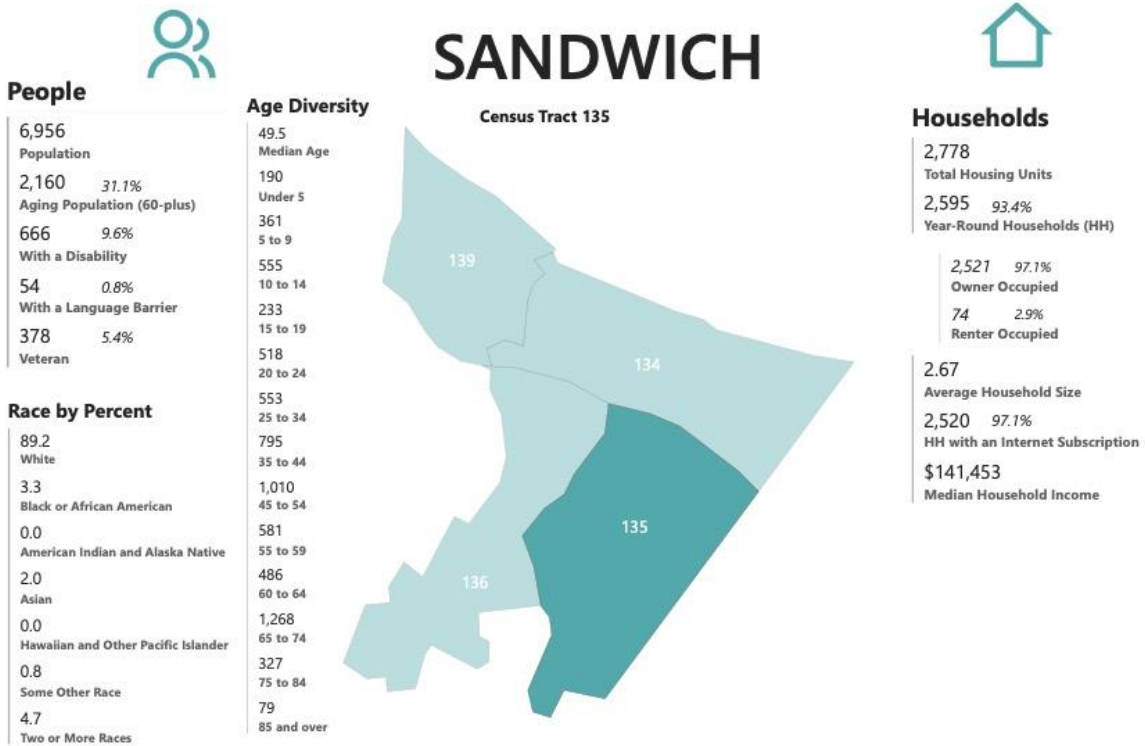
Appendix 5: **Town of Sandwich: Detail Maps and Data**



SOURCE: American Community Survey, 2022 5-Year Estimates

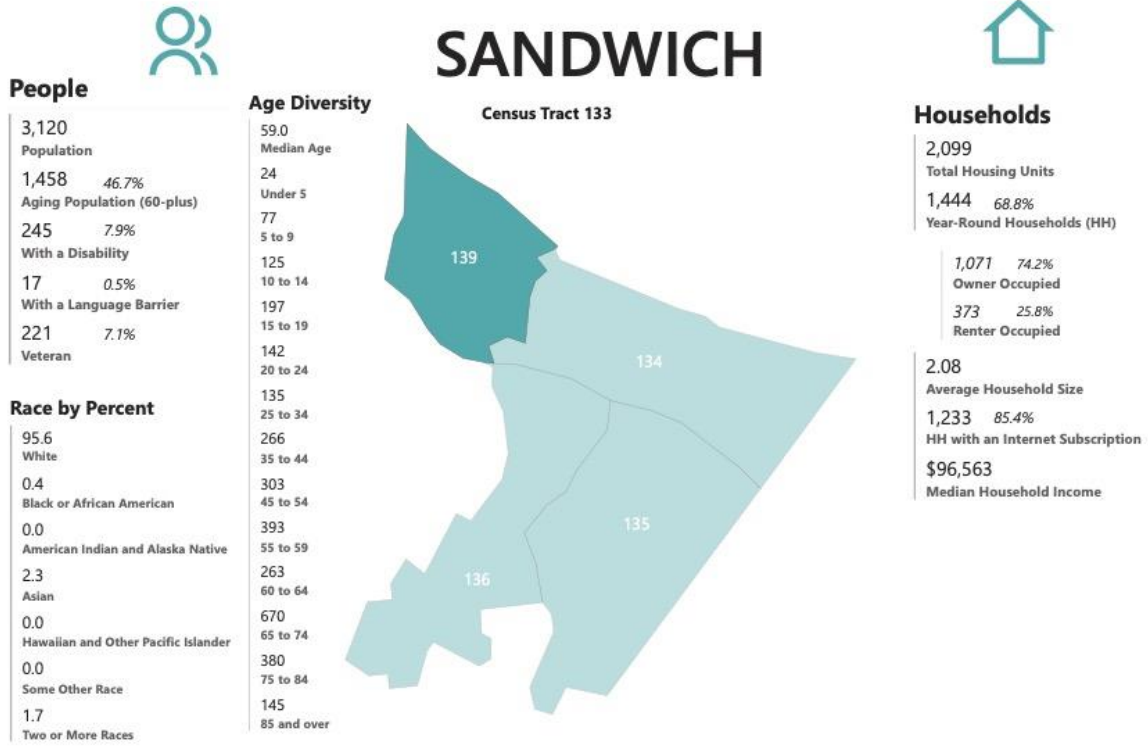


Appendix 5: Town of Sandwich: Detail Maps and Data



SOURCE: American Community Survey, 2022 5-Year Estimates

Appendix 5: **Town of Sandwich: Detail Maps and Data**



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