



Bourne Digital Equity Plan

COMMUNITY WORKSHOP

NOVEMBER 13, 2023 | BOURNE VETERAN'S MEMORIAL CENTER

MBI
MASSACHUSETTS
BROADBAND INSTITUTE


at the MassTech
Collaborative


CAPE COD
COMMISSION

Technology



Residential Internet Technologies



Dial Up



Copper/DSL



Cable



Fiber



Fixed Wireless



Satellite

Why are we here?

Community Workshop Objectives:

- Present an overview of the Town of Bourne Municipal Digital Equity Project.
- Provide community education about “digital equity” and information gathered to date about existing conditions in Bourne.
- Gain input from the community to inform the Municipal Digital Equity Plan, including “digital equity assets” and the plan’s ultimate vision and goals.
- Discuss barriers and opportunities to promote digital equity, and recommendations on solutions and future implementation.



Welcome

AGENDA

- Welcome
- Project overview
- What is digital equity?
- Existing conditions in Bourne
- Asset mapping exercise
- Community visioning & Goals exercise
- Barriers and Opportunities exercises
- Wrap-up

An aerial photograph of a large steel truss bridge spanning a wide river. The bridge is supported by several concrete piers. The water is dark blue, and a boat is visible on the right side. The surrounding area includes green trees, a parking lot with many cars, and some buildings. A blue digital overlay with lines and dots is superimposed on the right side of the image. In the bottom left corner, there is a dark blue rectangular area containing the text 'Project Overview' in white, with a thin orange horizontal line below it.

Project Overview

Background



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

ctc technology & energy
engineering & business consulting



City of Baltimore
Digital Equity
FRAMEWORK

Mayor Brandon M. Scott • Mayor's Office of Broadband
Released: November 2021

**Digital Equity in Cambridge:
Data and Strategic Recommendations**
Prepared for the City of Cambridge, MA
March 2021

Columbia Telecommunications Corporation
10613 Concord Street • Kensington, MD 20895 • Tel: 301-933-1488 • Fax: 301-933-3340 • www.ctcnet.us

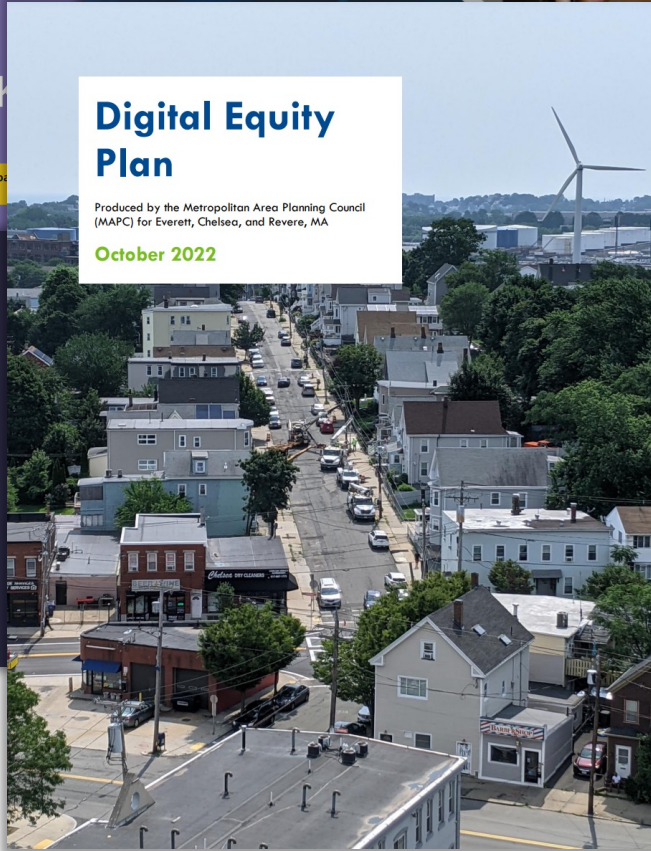
BROADBAND ACTION PLAN
2020

CALIFORNIA BROADBAND FOR ALL

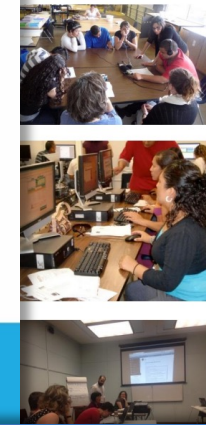
**Digital Equity
Plan**

Produced by the Metropolitan Area Planning Council
(MAPC) for Everett, Chelsea, and Revere, MA

October 2022



CALIFORNIA
BROADBAND COUNCIL



DIGITAL INCLUSION STRATEGY
CITY OF AUSTIN



**A DIGITAL
EQUITY PLAN**
FOR THE CITY OF
PHILADELPHIA

JANUARY 2022

Office of
Innovation & Technology

NATIONAL
GOVERNORS
ASSOCIATION

WHAT IS A DIGITAL EQUITY PLAN?

Purpose of the plan

-
- Understand current landscape of digital equity
 - Prepare for future funding opportunities
 - Equitable implementation: ensure that all benefit from infrastructural and programmatic investments
-

WHAT IS A DIGITAL EQUITY PLAN?

Plan Elements

1

Introduction & Town Vision for Digital Equity

2

Current State of Digital Equity

Existing conditions, knowledge gaps, challenges, and opportunities

3

Stakeholder Engagement Process

Who was engaged and how were they engaged

4

Objectives & Implementation Strategies

Recommendations for driving solutions

5

Evaluation and Updates

How will we stay accountable for this work into the future

Tasks and Timeline



Community Engagement

Community Pop-Ups:

- Bourne Public Schools Resource Fair
September 27, 2023
- Jonathan Bourne Public Library
October 16, 2023
- Town of Bourne Council on Aging
November 1, 2023

Outreach Strategies:

- Web based public comment form
- Outreach toolkit
- Targeted and broad outreach about community workshop
- Media

Stakeholder conversations:

- Herring Pond Wampanoag Tribe
- Cable, Internet & Telecommunications Advisory Committee
- Upper Cape Tech
- Bourne Public Schools
- Joint Base Cape Cod
- Mass Maritime Academy
- Council on Aging
- Jonathan Bourne Public Library

An aerial photograph of a large steel truss bridge spanning a wide river. The bridge is filled with cars and a bus. The image is overlaid with a digital network of blue lines and nodes, suggesting connectivity and data flow. The background shows lush green trees and a parking lot on the riverbank.

What is Digital Equity?

Digital Equity: *The Goal*

“A 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

Components of Digital Equity



Internet Connection

Affordable, fast, reliable,
accessible.



Devices

Adequate, needs-
appropriate, affordable,
accessible.



Literacy/Skills

Ability to use technology,
functionality, trust,
privacy concerns.

Covered Populations

Digital Equity (DE) & Broadband, Equity, Access, and Deployment (BEAD)

Covered Populations and Underrepresented Communities

Identify groups and communities disproportionately impacted by digital inequity



Low-income households



Indigenous and Native American persons



People with language barriers



Aging individuals



Members of ethnic and religious minorities



Racial and ethnic minorities



Incarcerated individuals



Women



Rural inhabitants



Veterans



LGBTQI+ persons



Persons adversely affected by persistent poverty or inequality



Persons of color



Persons with disabilities



Existing Conditions

Demographics and Internet
Connectivity

EXISTING CONDITIONS

Data Reviewed

American Community Survey, 2021 5-year Estimate Tables

- **S2801**, Types Of Computers And Internet Subscriptions
- **S2101**, Veteran Status
- **S1701**, Poverty Status In The Past 12 Months
- **S1901**, Income In The Past 12 Months (In 2021 Inflation-adjusted Dollars)
- **S1810**, Disability Characteristics
- **S1602**, Limited English Speaking Households
- **S0501**, Selected Characteristics Of The Native And Foreign-born Populations
- **S0101**, Age And Sex
- **B16003**, Age By Language Spoken At Home For The Population 5 Years And Over In Limited English Speaking Households
- **DP02**, Selected Social Characteristics In The United States
- **DP04**, Selected Housing Characteristics
- **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

2020 Decennial Census Tables

- **DP1**, Profile Of General Population And Housing Characteristics

Centers For Disease Control

- **2020 Social Vulnerability Index (SVI)**, Massachusetts And National Data

Other

- **Affordable Connectivity Program** Enrollments And Claims, Through May 2023
- **Microsoft Broadband Usage**, October 2020, Zip Code Level
- **FCC National Broadband Map Data**
- **MassGIS Data**: 2020 Environmental Justice Populations
- **Massachusetts Broadband Institute** Digital Equity Survey, Preliminary Bourne Results
- **U.S. Census On the Map Tool**, 2020 Worker Location and Demographic Data, onthemap.ces.census.gov

General Demographics

2020 Census & ACS

	Buzzards Bay	Sagamore/ Sagamore Beach	Bourne/ Monument Beach	Pocasset/ Cataumet	JBCC
Population	5,435	5,054	4,890	4,284	797
Male	3,110	2,442	2,302	2,026	498
Female	2,325	2,612	2,588	2,258	299
Median Age	53.1	44	54.9	57.1	25.1
Population/Sq. mi.	831	969	581	458	25
Household Income (median)	\$80,590	\$91,958	\$80,272	\$77,617	\$43,929
Housing Units	2,268	2,576	2,973	3,211	329
Year-Round Owner	1,430	1,770	1,795	1,547	-
Year-Round Rental	432	409	408	490	244
Seasonal %	15.1%	10.2%	22.6%	33.5%	4.0%
Households	1,862	2,179	2,203	2,037	244
Households Without Internet (ACS)	12%	3%	5%	17%	13%

EXISTING CONDITIONS

Covered Populations

	Buzzards Bay	Sagamore/ Sagamore Beach	Bourne/ Monument Beach	Pocasset/ Cataumet	JBCC
Population	5,435	5,054	4,890	4,284	797
Race	<p>91%</p>	<p>92%</p>	<p>93%</p>	<p>92%</p>	<p>78%</p>
Veterans	6%	8%	10%	9%	4%
Poverty Level					
185% of Poverty Level	15%	9%	17%	14%	29%
300% of Poverty Level	30%	23%	28%	27%	69%
Over 60	31%	33%	40%	49%	1%
With a Disability	14%	8%	14%	21%	3%
Environmental Justice Area	No	No	Income	Income	Income, Minority



DE NOFO



BEAD NOFO

EXISTING CONDITIONS

Internet Coverage

Internet Service Providers in Bourne

Marketing Speeds: Self-Reported to FCC

FCC Methodology

- A census block is considered to have access if at least one broadband provider **advertises speeds of 25 Mbps download and 3 Mbps upload** of higher.
- Download and upload speed represent maximum advertised speeds providers report making available.
- A property is considered connected if a provider can install connections within 10 business days.

	Download (Max MBPS)	Upload (Max MBPS)	Coverage
Cable*			
Xfinity	1200	35	99.6%
Copper			
TPx Communications	0	0	-
Verizon	10	1	-
Fiber-to-Premises*			
Verizon	940	880	12.3%
Satellite			
HughesNet	25	3	100%
Viasat, Inc.	35	4	100%
Starlink	350	40	100%
Fixed Wireless*			
T-Mobile US	100	20	14.1%
Verizon	300	10	

*Recognized as broadband service by MBI

EXISTING
CONDITIONS

Internet Coverage

Microsoft ZIP Code Level Speed Data

October 2020

Microsoft Methodology

- Broadband usage estimated from combined data from multiple Microsoft services.
- Throughput speed of a machines can be estimated when devices receive updates or connects to a Microsoft service.
- The data are combined with the number of households per county and zip code.
- ZIP code level location data also determined via reverse IP.

ZIP	Village	Percent @ 25/3 (MBPS)
02532	Buzzards Bay	100%
02534	Cataumet	18%
02542	JBCC	16%
02553	Monument Beach	100%
02559	Pocasset	26%
02561	Sagamore	61%
02562	Sagamore Beach	49%

EXISTING CONDITIONS

Affordable Connectivity Program (ACP)

As of September 1, 2023

[fcc.gov/acp](https://www.fcc.gov/acp)

The **Affordable Connectivity Program** is an FCC benefit program that helps ensure that households can afford the broadband they need for work, school, healthcare and more.

Townwide:

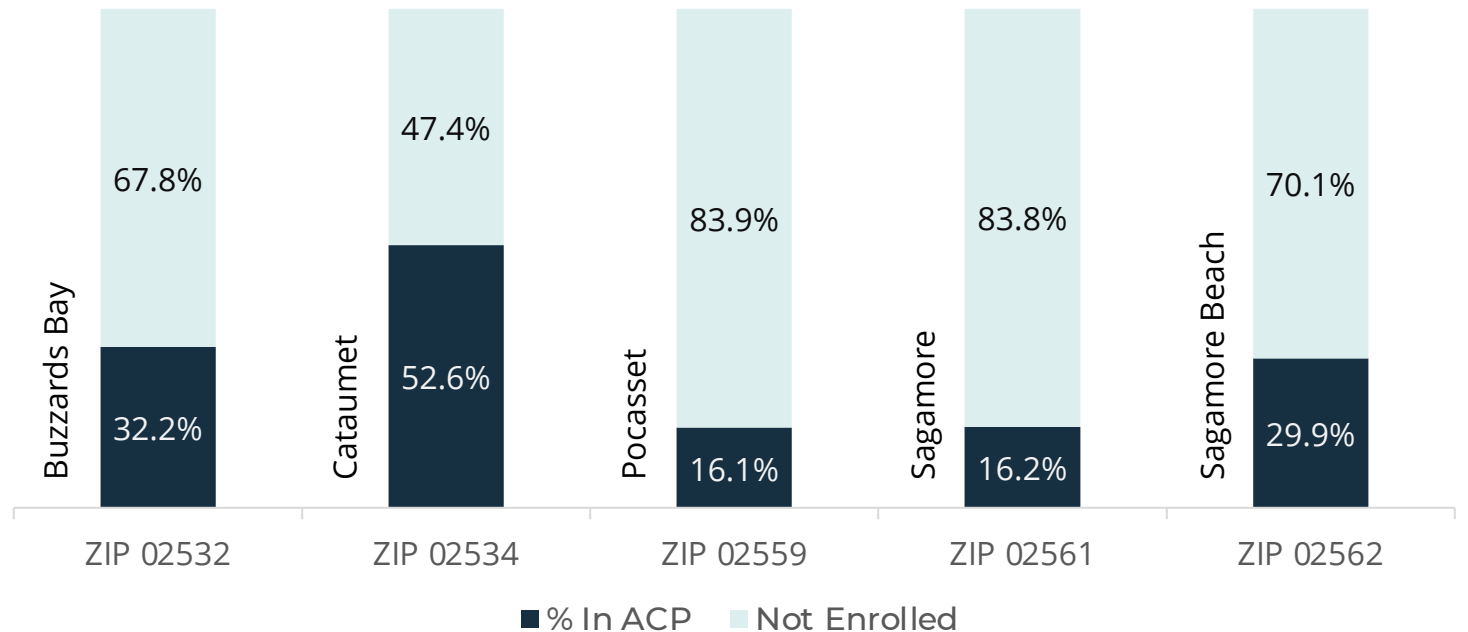
- Eligible Households: **2,225**
- Households Enrolled: **605** (*27%)

**Highest percentage of any Cape Town*

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

Eligible Households (estimated)



EXISTING
CONDITIONS

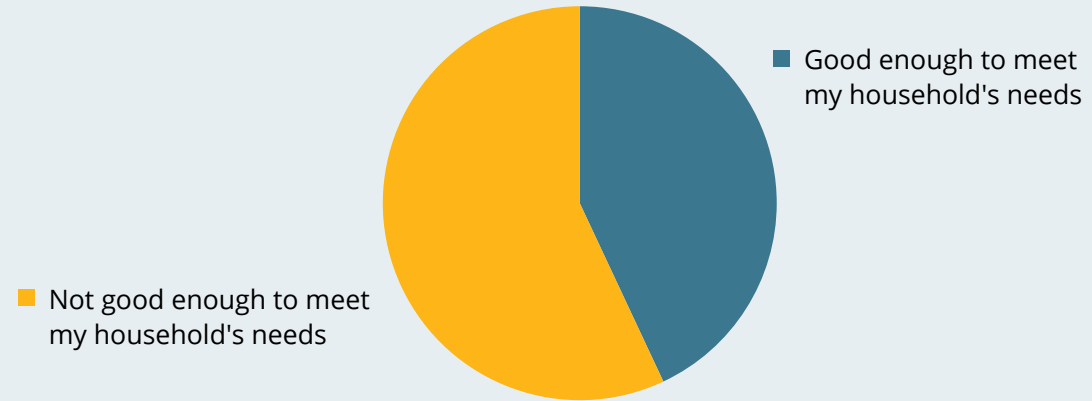
MBI Digital Equity Survey Results

As of October 24, 2023

Preliminary Results

How well does your Internet work?

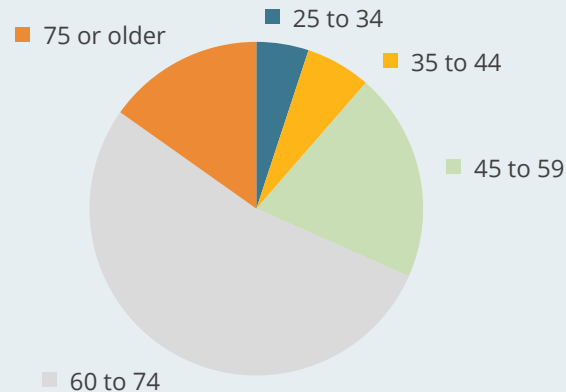
n=88



Respondents

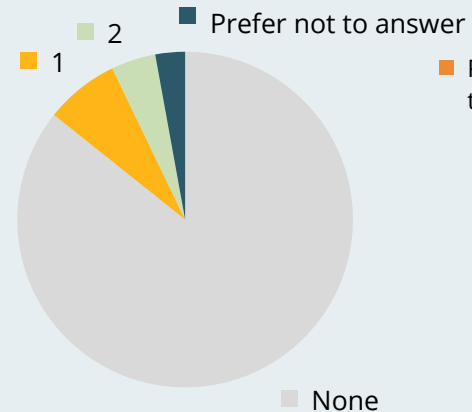
Age

n=79



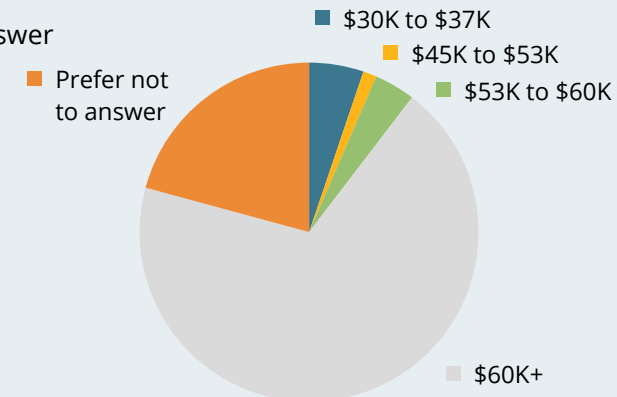
Children in House

n=70



Household Income

n=79



EXISTING
CONDITIONS

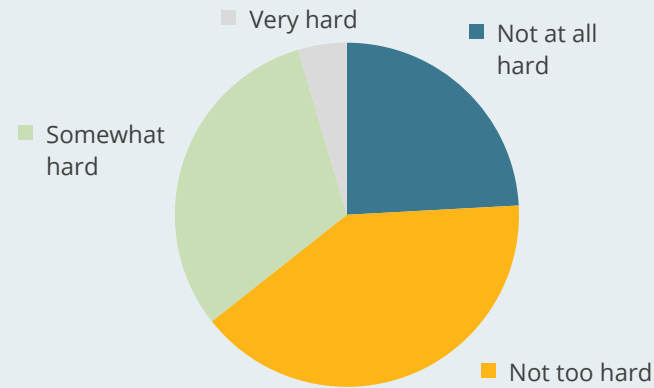
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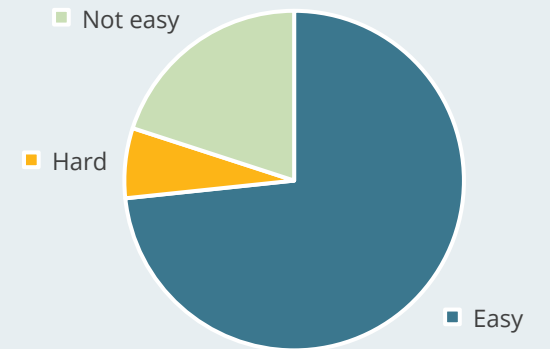
Preliminary Results

INTERNET USE: How hard is it to...

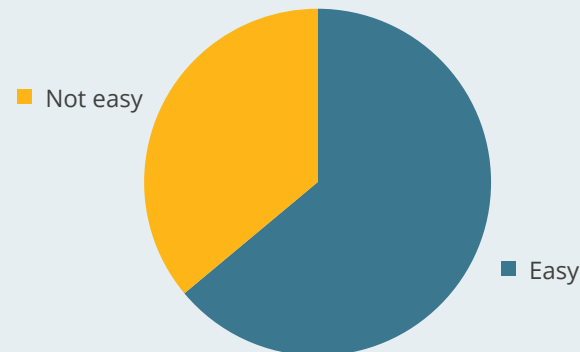
Pay your internet bill?
n=87



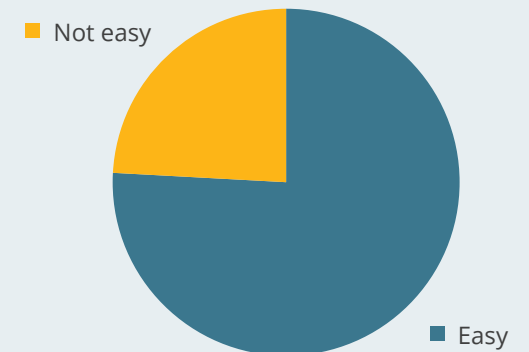
Search & Apply for a Job
n=45



Participate in Community
n=62



Health Care or Telehealth
Services
n=59



An aerial photograph of a large steel truss bridge spanning a wide river. The bridge is supported by several concrete piers. The water is dark blue, and a boat is visible on the right side. The surrounding area includes green trees, a parking lot with many cars, and some buildings. A blue digital overlay with lines and dots is present on the right side of the image.

Questions?

An aerial photograph of a large steel truss bridge spanning a wide river. The bridge is supported by several concrete piers. The surrounding area includes green trees, parking lots with cars, and a road. The image is overlaid with a digital network of blue lines and nodes, suggesting a data or asset mapping exercise. A dark blue semi-transparent box is positioned on the left side of the image, containing the text 'Asset Mapping Exercise' in white. Below the text is a thin orange horizontal line.

Asset Mapping Exercise

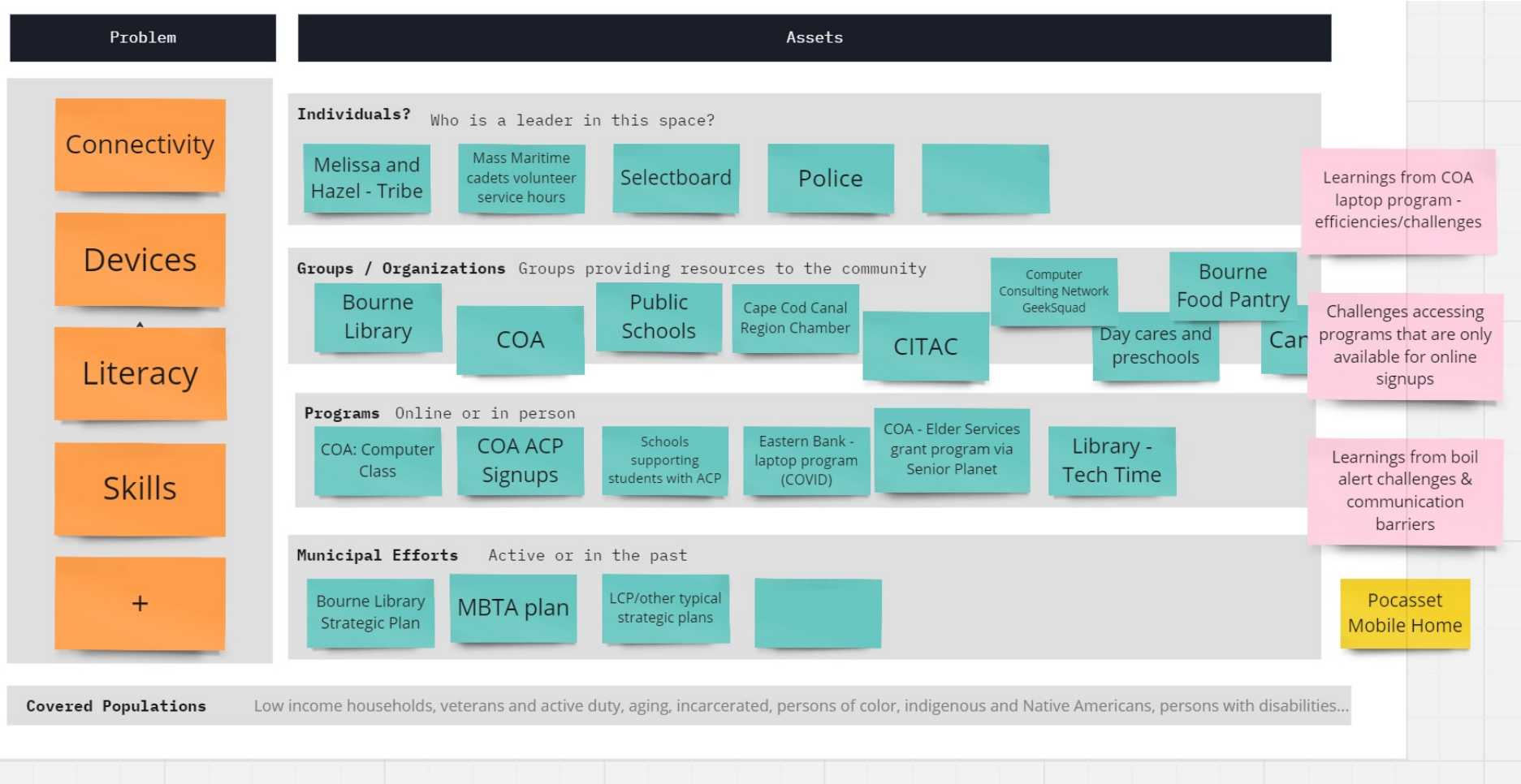
Digital Equity Assets

Programs, organizations, plans, or individuals working to advance digital equity and inclusion.

Examples:

- **Free public internet access and devices** available at libraries.
- **Courses hosted by non-profits** that teach seniors how to navigate the internet or use a computer.
- 1-on-1 support provided by nonprofits to **help clients advance digital skills** to meet broader goals (job-seeking, healthcare, education).

Asset Mapping Exercise



An aerial photograph of a large steel truss bridge spanning a wide river. The bridge is supported by several concrete piers. The surrounding area includes green trees, parking lots with cars, and a road. The image is overlaid with a blue digital graphic consisting of horizontal lines and a network of lines radiating from a central point, suggesting a vision or goals theme.

Vision & Goals

DIGITAL EQUITY PLAN

Draft Vision

Through this plan, the Town of Bourne envisions a future where all residents have the opportunity to meaningfully engage within the digital world through equitable access, affordability, and adoption of the internet and devices, as this is essential to full personal, civic, and economic participation in our community.

DIGITAL EQUITY PLAN

Draft Goals

This can be achieved through the following key goals:

- Residents of Bourne can access internet **connectivity** that is reliable, affordable, and of adequate **service quality**.
- Residents of Bourne can learn of ways to access the **technology and devices** they need to participate and engage through community resources and programs.
- Residents of Bourne can 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 Bourne can develop the capacity and resources required to further increase digital equity. Entities supporting digital equity within the Town of Bourne and from across neighboring communities can function as a **network**, providing complementary and community-responsive services for Bourne residents.

Vision & Goals Discussion

Through this plan, the Town of Bourne envisions a future where all residents have the opportunity to meaningfully engage within the digital world through equitable access, affordability, and adoption of the internet and devices, as this is essential to full personal, civic, and economic participation in our community. This can be achieved through the following **key goals**:

- Residents of Bourne can access internet **connectivity** that is reliable, affordable, and of adequate **service quality**.
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Breakout Exercises

Barriers

Opportunities



Report Back

Barriers

Opportunities

NEXT STEPS

- Information from this workshop and from other community engagement activities to be synthesized.
- Commission staff will meet with municipal project team to share a plan outline and will develop a draft digital equity plan.
- Municipal digital equity plan will be out for public comment in early 2024.



Submit comments



Thank you!

Bourne Digital Equity Plan Community Workshop

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Take the survey

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