

# EVERY HOUSEHOLD ONLINE

*Salem's Strategy for Digital Equity Across Language, Income, and Ability*

## Digital Equity Plan



**Prepared by:**

Metropolitan Area Planning Council

**In partnership with:**

City of Salem

September 2026



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**SALEM**  
MASSACHUSETTS

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# Acknowledgements

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## Community Advisory Group

The Community Advisory Group (CAG) met four times between January and July 2026 to ground this plan in resident and practitioner expertise. CAG members include:

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## A note on emerging technology and this plan

This digital equity plan's project period took place from the end of 2025 through the summer of 2026: a period of rapid advancement, change, and disruption in the digital technology landscape, most notably, due to rapid advancements in large language models (LLMs) and other forms of generative artificial intelligence (GenAI). During this period, AI tools became markedly more capable and more widely available, evolving from relatively simple chatbots into tools that can generate and interpret text, images, audio and video; assist with research and complex problem-solving; write computer code; and increasingly "agentially" carry out multi-step tasks on a user's behalf. These technologies have also become increasingly integrated into workplaces, schools, search engines, productivity software, and other aspects of everyday digital life.

As a result, throughout our planning process, AI technology received extensive public attention and prompted both excitement about the potential of AI tools and concern about its implications for employment, education, privacy, fraud, misinformation, and other aspects of community life.

To be sure, these developments also have important implications for digital equity. Access to an internet connection and a suitable device remain fundamental, but meaningful digital inclusion increasingly requires an additional set of skills: understanding if, when and how to use AI-enabled tools, critically evaluating the information they produce, recognizing AI-generated or manipulated content, protecting personal information, and identifying increasingly sophisticated scams and impersonation attempts. AI may also change the skills expected of workers and job seekers, creating both opportunities and potential new barriers for people who lack access to training or support.

Because these technologies continued to evolve while this plan was being developed—and will continue to do so after its publication—the recommendations in this plan should be understood as responding to a changing digital landscape. Efforts to close the digital divide must therefore address not only access to today's technologies, but the skills, confidence, and support residents need to navigate the technologies that emerge next, including advanced AI.

## A note on the use of generative AI in preparing this plan report

In part as a way of engaging with these emerging technologies, generative AI tools were used in the preparation of this plan report in the following ways. GenAI supported formatting, assembly, and layout of the report document, as well as concise summarization of themes drawn from qualitative comments, and production of the 11x17 tabloid-format visual executive summary. **All content was reviewed/edited by project team members.**

Perplexity Pro was used as a search tool to verify current sources for reports and studies, and to check for recent changes in the digital equity planning field and in the national and state regulatory landscape.

Gemini Notebook (formerly known as NotebookLM) was used for grounded summarization and synthesis, to identify themes and recurring ideas across extensive qualitative material. This included survey results and open-ended survey comments, findings from the community landscape analysis, interviews with community-based organizations, and internal MAPC team analysis, commentary, and interpretation of results for potential plan recommendations. NotebookLM Pro was also used to generate the visual executive summary.

Claude (Sonnet 5, Anthropic) was used to format the plan's appendices, chapters, sections, headers and the table of contents, for consistency across the document.

All GenAI use followed careful, project-grounded prompting practices, including limiting inputs to project-based source material. **All content produced was reviewed by members of the MAPC project team.** Retrieval-augmented generation (RAG) was used for Perplexity Pro's internet search queries. All URLs, sources, and data returned through that process, including Massachusetts Broadband Institute (MBI) and broadband infrastructure information such as measured speeds, network details, and internet service provider data, were subsequently verified by the project team for accuracy, currency, and reliability.

# Plan at a Glance

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This Digital Equity Plan is organized into five main sections and thirteen supporting appendices. A visual overview and list of appendices is provided below, followed by a visual “executive summary” of the plan. A more detailed table of contents with hyperlinks to support navigation is provided on page 6-7.

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## **Recommendations**

**Appendices A–M:** Sources Cited • Sources Consulted • Revised Existing Conditions Memo (June 2026) • Digital Equity Framework • Network Technology Primer • How Speed Is Measured • Digital Equity Asset Ecosystem • Community Engagement Detailed Table • ISP Coverage Comparison • MBI Existing Conditions Summary + Original • Landscape Analysis Summary + Original • Qualitative Engagement Summary + Original • Survey Results Summary + Original.

# Every Household Online

Salem's Strategy for Digital Equity Across Language, Income & Ability

Executive Summary  
Digital Equity Plan

## Why It Matters



In Salem, **not every resident** begins each day with the same digital footing. This plan charts a course to close that gap.

## Three Pillars



**Connection**  
affordable, reliable home internet



**Devices**  
a computer / tablet beyond a smartphone



**Skills**  
know-how to use them safely, confidently

## Priority Populations



Low-income households



Older adults (75+)



Limited English proficiency



Residents with disabilities



Environmental Justice communities



Domestic violence survivors



Youth and students



Housing insecure individuals

## By The Numbers

**43,326**

Salem residents (ACS 2020-2024)

**9.6%**

of households (~1,951) have no home internet

**7.4%**

households who are reliant on smartphones only for internet access

**19.4%**

of workers now work from home

**+57%**

projected growth in Residents 75+ by 2050

**43.6%**

of households are housing cost-burdened

## What We're Recommending

**Expand Access to Affordable Reliable Internet**

**Increase Access to Device Support & Repair**

**Strengthen Culturally Appropriate & Accessible Outreach**

**Build Municipal Digital Capacity**

**Advance Digital Skills, AI Readiness & Trusted Tech Use**

**Improve Digital Access in Municipal Facilities & Public Realm**

Prepared by MAPC, in partnership with the City of Salem.

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## Executive Summary: Salem's Strategy for Digital Equity Across Language, Income, and Ability

In Salem, a city of remarkable history, diversity, resilience, not every resident begins each day with the same digital footing. For a single mother in The Point navigating an online rental assistance application in a second language, a reliable internet connection might be the difference between housing stability and crisis. For a 78-year-old senior on a fixed income living in affordable housing at Loring Towers whose telehealth appointment requires a broadband subscription she struggles to pay for monthly, affordable connectivity and knowing how to use new websites and technologies means access to healthcare. For a recent immigrant attending English language classes who needs to complete coursework after hours but has no laptop, access to a computer determines whether pursuing education is possible.

These real resident experiences point to the persistence of a digital divide in Salem, as well as an opportunity to close that divide through the three pillars of digital equity: broadband connection, device access, and digital literacy.

The Salem Digital Equity Plan, *Every Household Online*, developed by the Metropolitan Area Planning Council (MAPC), in partnership with the City of Salem is a step toward addressing this lingering digital divide. From late 2025 through the fall of 2026, MAPC conducted research and outreach to understand the existing digital landscape in Salem. We spoke to institutions and community-based organizations as well as directly with residents most impacted by the digital divide to understand community needs. This executive summary of the 2026 *Every Household Online* plan provides an overview of key community needs and data analysis, describes key findings from MAPC's outreach and research, and lays out recommendations for how Salem can take action to advance digital inclusion for all members of the community.

Salem is not starting from scratch. Across the city, institutions that residents already rely on—including the Salem Housing Authority (SHA), Salem Public Schools, Salem Public Library, and a network of community-based organizations, like the North Shore Community Development Coalition—are helping residents navigate an

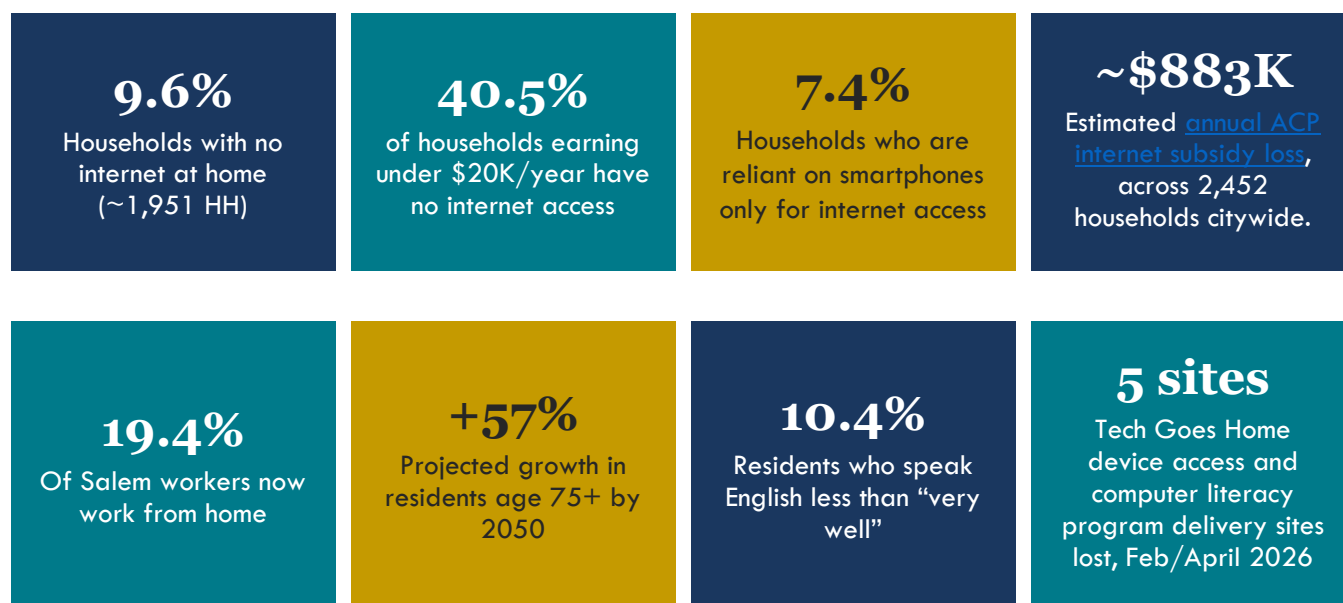
increasingly digital world. NSCDC and SHA, in particular, are organizations serving as an important point of connection for many low-income residents facing affordability and access challenges at home. Staff and residents from organizations like these brought valuable perspectives to this planning process. Together with community organizations and municipal staff, these trusted partners helped MAPC identify the barriers residents face and understand where existing resources are falling short.

Salem has made real progress in expanding digital infrastructure: 99% of the city's addresses have broadband internet service available. But availability is not the same as access, and access is not the same as equity. The residents who need connectivity most—seniors on fixed incomes, low-income renters in Environmental Justice neighborhoods, residents living with disabilities, people who speak English as a second or third language—are precisely the residents for whom today's market-driven broadband system too often falls short. Nearly 10% of households in Salem currently lack an internet broadband subscription, and another 7.4% only have an internet subscription through a cellular data plan. Seven percent of households do not have a computing device at home. These numbers would not be acceptable if we were talking about running water or electricity, and in modern life the internet has become just as essential.

Every recommendation in this plan traces back to conversations with Salem residents or a confirmed stakeholder need identified. This is their plan first.

## Data Dashboard: Salem's Digital Equity Snapshot

The following data points help illustrate where digital equity gaps may be more pronounced across Salem and who experiences greater barriers to digital access. They highlight key patterns in access, affordability, device ownership, and the disparate impact of the digital divide. All figures below are from the Existing Conditions summary of the *Every Household Online* plan (Section 2, Appendix C). For a deep dive into Salem's digital equity metrics, take a look at MAPC's [DataCommon Digital Equity Community Profile for Salem](#).



Data source: U.S. Census American Community Survey (ACS) 2020-24

Additionally, the Digital Equity Planning survey captured how Salem residents use the internet across different areas of daily life. Among respondents, 89% use the internet for healthcare communication, 74% for work, 68% for government services, and 25% for school.

## Key Findings

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- **Affordability, not infrastructure, is the primary barrier to internet access in Salem.** Broadband infrastructure is nearly universal in Salem, with 99% of locations physically served. However, competition is limited for wired, to-the-home broadband, with most residential locations served by only one Internet Service Provider (ISP). This limited consumer choice likely contributes to affordability challenges. Internet subscription costs disproportionately affect households that are already financially strained, particularly those experiencing housing cost burden and other economic pressures.
- **Salem has a strong network of community institutions and leaders advancing digital equity.** Salem benefits from a committed network of municipal staff, community institutions, and local leaders working to advance digital equity. Throughout the planning process, partners proactively worked with the planning team to identify barriers to digital access, engage residents, and surface opportunities to strengthen existing resources. This network includes the Salem Public School District, Salem Housing Authority, Salem Public Library, North Shore Community Development Coalition, Lifebridge, HAWC, Salem Council on Aging, Salem Food Pantry, and other trusted community institutions, including St. Peter's Episcopal Church.

Together, these partners form an important support network for residents navigating digital access challenges. Many are also incorporating digital equity into their broader strategic goals, demonstrating an ongoing commitment to ensuring that residents can access the technology, services, and support they need.
- **The loss of digital equity funding has disrupted Salem's digital inclusion ecosystem.** Recent reductions in federal and state funding, such as the ending of the federal Affordable Connectivity Program (ACP), and the winding down of ARPA funded MBI programs, have weakened the network of programs and organizations that support digital access. This loss of funding has created uncertainty about the sustainability of digital equity initiatives and reduced residents' access to critical resources.
  - The loss of the American Connectivity Program (ACP) subsidy in June of 2024 is a crisis already underway. **An estimated 2,452 Salem households lost approximately \$30 per month to subsidize broadband internet amounting to \$882,720 per year in ACP broadband subsidies lost for low-income households in Salem. No federal replacement exists as of June 2026.**
  - Tech Goes Home closures left a critical digital literacy gap. One of **Salem's primary formal digital literacy provider effectively closed in April 2026, leaving no clear replacement.**
- **Emerging technologies present new opportunities, challenges, and responsibilities.** As new technologies continue to shape how residents access services, communicate, learn, and work, Salem residents, community organizations, and municipal staff see a growing need for education, trusted guidance, and responsible implementation. Artificial intelligence emerged as one prominent example of a broader shift toward new digital tools that present both opportunities and risks.
- **Digital equity needs to be part of a more holistic, intersectional approach to equity.** Digital equity is an essential component of Salem's broader diversity, equity, and inclusion (DEI) efforts. Improving digital access, digital skills, and inclusive digital services directly supports the City's Equity Audit goals of making City information easier to access and maintaining accessible channels for community engagement and feedback.
- **Digital participation is central to civic, cultural, and economic life in Salem.** Salem is a subcultural mecca with a tourism economy that is intrinsically and uniquely tied to the internet. To participate in and succeed as a local business or to have influence in civic and cultural conversations in Salem requires digital access and literacy, particularly with social media, highlighting the digital divide in perhaps starker contrast than in other places.

## Priority Populations

This plan centers eight populations experiencing the greatest digital equity gaps in Salem, as identified through demographic data, the Existing Conditions analysis, and direct community engagement. These populations roughly align with the covered population groups prioritized under the Massachusetts State Digital Equity Plan and MBI's digital equity programs, ensuring the plan's focus on residents and communities most likely to experience barriers to digital access and inclusion.



**Low-income households**



**Older adults, esp. age 75+**



**Limited English proficiency residents**



**Residents with disabilities**



**Environmental Justice communities**



**Domestic violence survivors**



**Youth and students**



**Housing insecure individuals**

The planning process reinforced that the digital divide does not impact all Salem residents equally. While broadband infrastructure is widely available, barriers to meaningful digital participation are most acutely experienced by residents facing broader social and economic challenges, including low-income households, older adults, immigrants and multilingual residents, people with disabilities, and other historically underserved communities. Engagement with residents and stakeholders highlighted that digital equity requires more than internet access alone; it also depends on access to devices, digital skills, accessible services, trusted support, and culturally responsive outreach—things that can and should be catered and targeted to meet residents and families where they are, including accounting for the different contexts and identities of priority populations.

***"There are apps where my kids learn my language, because I speak Arabic, and Arabic is hard. I was a high school teacher, so I know it's hard to learn it. And I put them both in school to learn it here, but still hard for them because of different alphabets, right to left reading. So, when they use the app, at least they get familiar with the words, with the connection and the words connect to each other, stuff like that."***

- school parent (Arabic language speaker)

***"I actually have had that problem [needing access to the internet or devices] for a long time, I was just homeless for 10 years in Boston on Mass Ave. I mean, there's a million challenges. One, it all depends on the level you are in life. Whatever class you've been into is how you're seen, it doesn't matter if that's a fact or just somebody else's beliefs.. you're going to be treated that way. So like libraries, stuff like that, it's not an option. As soon as you step in the cops are called, even if you're not doing anything wrong."***

- resident interviewed at Laundromat

## Recommendations Overview

Salem has a strong foundation of community assets working to close the digital divide. The City, schools, library, housing providers, and community-based organizations are already advancing digital inclusion through efforts such as public Wi-Fi, device distribution, digital skills training, language access, and one-on-one support. The recommendations in this plan build on these existing efforts while addressing gaps and opportunities.

The recommendations are organized into six strategic categories:

- **Expand Access to Affordable and Reliable Internet:** Improve broadband affordability, reliability, and availability through expanded connectivity options, partnerships, and community resources.
- **Increase Access to Device Support and Repair:** Expand access to devices while strengthening device distribution, maintenance, repair, and technical support programs.
- **Strengthen Culturally Appropriate and Accessible Outreach:** Improve awareness and accessibility of digital resources through multilingual, community-centered, and trusted outreach strategies.
- **Build Municipal Digital Capacity:** Strengthen the City's ability to provide accessible, user-centered digital services and support inclusive digital engagement.
- **Advance Digital Skills, AI Readiness, and Trusted Tech Use:** Expand opportunities for residents to build digital literacy, AI readiness, cybersecurity awareness, and confidence using tech safely and effectively.
- **Improve Digital Access in Municipal Facilities and the Public Realm:** Expand access to free internet, digital equipment including charging stations and kiosks, and technology-enabled spaces in public facilities and community locations.

Below is a table of recommendations organized by category. Each recommendation is rated for **impact** (1 = low, 5 = high) and **resource requirements** (1 = low, 5 = resource intensive) and categorized by implementation timeframe: **short-term** (within 1 year), **medium-term** (2–5 years), or **long-term** (5–10 years). Section 5 of *Every Household Online* lays out more details about each of these recommendations.

|                                                             | Recommendation                                                                                                          | Impact (1-5) | Resource (1-5) | Timeline    |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------|----------------|-------------|
| <b>Expanding access to affordable and reliable internet</b> | Develop and maintain an inventory of free and low-cost internet service options                                         | 2            | 1              | Short-term  |
|                                                             | Strengthen community broadband access through strategic community partnerships                                          | 3            | 3              | Medium-term |
|                                                             | Use municipal agreements to improve internet affordability and access                                                   | 5            | 3              | Long-term   |
|                                                             | Increase broadband competition by attracting additional ISPs                                                            | 5            | 3              | Long-term   |
|                                                             | Leverage municipal infrastructure and policy to support long-term broadband expansion                                   | 5            | 5              | Long-term   |
|                                                             | Strengthen regional partnerships to advance digital equity and broadband access                                         | 3            | 1              | Short-term  |
| <b>Increase access to device support and repair</b>         | Build a community device donation and refurbishment ecosystem                                                           | 4            | 3              | Medium-term |
|                                                             | Build local capacity for community device repair and maintenance network                                                | 4            | 3              | Medium-term |
|                                                             | Expand access to shared devices that support safe and secure technology use                                             | 3            | 2              | Short-term  |
|                                                             | Support and expand North Shore Community Development Coalition's (NSCDC) digital literacy and device access programming | 4            | 2              | Short-term  |

|                                                                               |                                                                                                                                               |   |   |             |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---|---|-------------|
|                                                                               | Sustain and expand community hotspot lending program                                                                                          | 3 | 2 | Short-term  |
|                                                                               | Increase awareness of and access to existing community-based device resources                                                                 | 3 | 1 | Short-term  |
| <b>Strengthen culturally appropriate and accessible outreach</b>              | Strengthen coordinated, multi-channel outreach to increase awareness of digital equity programs and service                                   | 4 | 2 | Short-term  |
|                                                                               | Partner with trusted community leaders and organizations to strengthen outreach and community engagement                                      | 4 | 3 | Short-term  |
|                                                                               | Expand use of translation technology to improve language access                                                                               | 4 | 2 | Short-term  |
|                                                                               | Maintain and expand the digital equity asset map as a community resource inventory                                                            | 3 | 1 | Medium-term |
| <b>Build municipal digital capacity</b>                                       | Establish a working group to advance digital access priorities                                                                                | 4 | 3 | Short-term  |
|                                                                               | Improve ADA and language access for municipal digital services                                                                                | 5 | 3 | Medium-term |
|                                                                               | Establish a Digital Equity position to coordinate and advance citywide digital equity efforts                                                 | 5 | 4 | Medium-term |
|                                                                               | Track emerging technologies that improve digital accessibility                                                                                | 5 | 1 | Medium-term |
|                                                                               | Continuously track and improve municipal digital services                                                                                     | 4 | 2 | Short-term  |
|                                                                               | Actively support residents in accessing and utilizing digital services                                                                        | 4 | 2 | Short-term  |
| <b>Advance digital skills, AI readiness, and trusted tech use</b>             | Build a network of trusted digital assistance and navigation services                                                                         | 3 | 2 | Medium-term |
|                                                                               | Promote programming and resources to build digital and AI skills                                                                              | 4 | 3 | Short-term  |
|                                                                               | Promote existing community resources to elevate cybersecurity awareness and safe technology use                                               | 4 | 2 | Short-term  |
|                                                                               | Leverage community partnerships to expand access to digital literacy and AI education                                                         | 4 | 2 | Short-term  |
|                                                                               | Strengthen foundational educational and workforce digital skills for residents                                                                | 3 | 3 | Medium-term |
|                                                                               | Ensure educational materials on digital skills, online safety, and trusted technology use are available in multiple languages                 | 3 | 1 | Medium-term |
| <b>Improve digital access in municipal facilities and in the public realm</b> | Expand public Wi-Fi access in high impact community locations that serve priority populations by leveraging existing municipal infrastructure | 5 | 4 | Medium-term |
|                                                                               | Ensure the availability of inclusive and accessible tech equipment at municipal facilities where needed                                       | 3 | 3 | Medium-term |
|                                                                               | Consider improvements to the public realm to support digital access                                                                           | 3 | 3 | Medium-term |



# 1. Introduction

## 1.1 Project Background

The City of Salem, in partnership with the Metropolitan Area Planning Council (MAPC), has developed a **Digital Equity Plan, Every Household Online** based on community input to ensure all residents have access to the technology, connectivity, and skills needed for full participation in civic, economic, and social life. This planning effort launched in late 2025 with a Community Advisory Group kickoff on January 29, 2026, and draws on nearly 30 planning documents developed over the past decade.

Many of **Salem's existing plans** (including the Housing Roadmap [2022], Open Space and Recreation Plan [2023–2030], Climate Action and Resilience Plan [2021], and the City Equity Audit [2024]), **collectively identify digital access as cross-cutting infrastructure enabling residents** to navigate online rental assistance, access real-time transit information, participate in remote work, utilize telehealth, and maintain civic engagement. This plan is designed to complement and operationalize those commitments.

The **federal Digital Equity Act (DEA) funding landscape for digital equity programming has shifted since 2025**. This **plan's implementation strategy** (Section 5, Group 7) has been adapted in response, **centering Massachusetts Broadband Institute (MBI) programs and locally coordinated philanthropic and municipal resources as the primary funding pathway**. Current federal program status as of this plan drafting (September 2026) remains in flux.

## 1.2 What Is Digital Equity?

Digital equity is the condition in which all individuals have the information technology capacity needed for full participation in society. This plan rests on three interconnected pillars:

**Broadband connection:** the availability and affordability of high-speed home internet service.

**Device access:** having an adequate, internet-enabled device beyond a smartphone, such as a laptop, desktop, or tablet.

**Digital literacy:** the skills needed to use connectivity and devices effectively, safely, and confidently.

This plan additionally treats digital equity as **a social determinant of health** and a foundational **enabler of housing stability, education, mobility, workforce participation, and civic life**; not as a stand-alone tech issue.

## 1.3 Digital Equity Asset Landscape

Salem benefits from an unusually dense and well-connected ecosystem of anchor institutions and community-based organizations already doing digital equity work. The Existing Conditions landscape analysis (Appendix I) catalogued **over 100 distinct digital equity assets** across the city: 18 municipal assets, 27 community organizations, 23 businesses, 11 small businesses, 9 local institutions, 3 faith-based organizations, and 3 dedicated digital equity advocates. Of these, 37 provide some form of Wi-Fi access, 14 provide digital training or support, 10 provide device access, and 12 sell devices.

This inventory come from **Existing Conditions Research** that helped us identify assets and locations and from **MAPC's landscape analysis interviews** which provided on-the-ground detail, such as which locations keep Wi-fi guest networks available after hours or which community organizations distributes devices quietly or informally alongside services. **Community Advisory Group members** also checked our inventory and map against their own knowledge.

### 1.3.a. Public Agencies

- Salem City Hall – Provides guest Wi-fi in all municipal buildings; parks and rec department provides free Wi-fi at Winter Island Campground; provides various digital services and strives to support residents in equitable access to those services, including through constituent services and outreach; coordinates digital equity efforts across departments and across organizations.
- Salem Public Library – free internet, public computing, device lending (tablets and hotspots), and on-demand digital support staff trained in technology stress/frustration de-escalation, as well as various programming. We heard from residents that Wi-Fi hours were shortened in 2025 after people began living/loitering on-site; restoring extended Wi-fi hours remains an open question.
- Salem Public Schools – a help desk, Chromebook lending from 9th grade onward, an afterschool computer repair club, and instruction in digital literacy and digital citizenship. The district has a technology plan but lacks funding to fully operationalize it.
- Community Life Center / Council on Aging – holds Chromebooks available for use and ready for check out and an underused computer room, limited primarily by staff capacity rather than equipment.
- Salem Housing Authority (SHA) – a key implementation partner serving [22 sites with 715 units](#) across Salem, Beverly, and Marblehead; [MBI residential retrofit](#) fiber awards already committed to Loring Towers and the Fairweather building (see Section 2.3).

### 1.3.b. Community-based organizations

- North Shore Community Development Coalition (NSCDC) – operates a neighborhood mesh Wi-Fi network serving roughly 1,100 units in The Point – described by a Community Advisory Group member as “Massachusetts’ first Digital Equity Neighborhood.” NSCDC’s resident ambassador model trains peer leaders to lead tech trainings and is a Tier 2 basis for recommendations in Section 5.
- Healing Abuse Working for Change (HAWC) – provides clean, untampered devices and mobile hotspots so domestic violence survivors can communicate and access services without compromising their safety or privacy.
- Lifebridge North Shore – operates a Day Center serving roughly 70 people experiencing homelessness, with device chargers, phones, and space for telehealth and Zoom appointments; staff report wanting a dedicated digital navigator.
- Salem Food Pantry – maintains online sign-up systems that are currently underutilized; stated openness to adding Wi-Fi at a planned second market location.
- Essex County Community Foundation (ECCF) – a countywide convener and grant maker that has funded digital equity work across the region and in Salem and described Salem’s ecosystem as unusually collaborative.

*For a more detailed accounting of Salem’s Community based organizations and existing community and digital equity assets, see Appendix G: Digital Equity Asset Ecosystem.*

#### Critical ecosystem gap: Tech Goes Home

Salem’s primary structured digital literacy provider, **Tech Goes Home**, effectively closed in Feb/April 2026, due to an increasingly uncertain funding environment. This leaves a confirmed gap at five program sites: North Shore CDC (3 classes), Salem Public Schools, Caritas Communities, Boston Senior Home Care, and South Sudanese Enrichment for Families.



## 2. Existing Conditions Analysis

### 2.1 Overview of the Salem Community

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Salem is a compact, historic coastal city of **43,326 residents** (U.S. Census Bureau, American Community Survey 2020–2024 5-Year Estimates). It is characterized in the Housing Roadmap (2022) as a “Millennial Peak” community, with 30% of residents aged 18–34, even as its senior population is now the fastest-growing cohort. Neighborhoods including The Point, North Salem, South Salem, Downtown/Derby, and Highland Avenue have distinct demographic and socioeconomic profiles that shape digital equity conditions in different ways.

Salem also carries a formal state designation as a Gateway City, one of 26 Gateway Cities in Massachusetts. The state directs certain economic development and infrastructure resources toward Gateway Cities, which tend to be mid-sized cities working to rebuild their economic base. Within Salem, there is a diversity of socioeconomic characteristics from neighborhood to neighborhood, as explored in section 2.2 below. From one Salem neighborhood to another there are sometimes large differences in household income, racial and ethnic makeup, presence of older adults, and other characteristics. As is common in many Gateway Cities, a citywide average does not always fully reveal real pockets of need within Salem.

### 2.2 Demographics

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Salem’s various demographic characteristics intersect in ways that matter directly for digital equity. The maps and tables below present the quantitative baseline conditions in Salem. Section 3 brings resident voices to these patterns and their impacts.

#### Digital Equity Act Covered Populations and Other Priority Groups

Salem’s plan targets the “covered” population categories defined under the federal Digital Equity Act:

- Low-income households
- Racial and ethnic minority groups
- Older adults
- English learners and individuals with low literacy – notably Spanish, Portuguese, Arabic, Haitian Creole, and Albanian speakers in Salem
- People with disabilities
- Incarcerated individuals
- Veterans

As well as additional priority groups identified by City Hall and during the planning process:

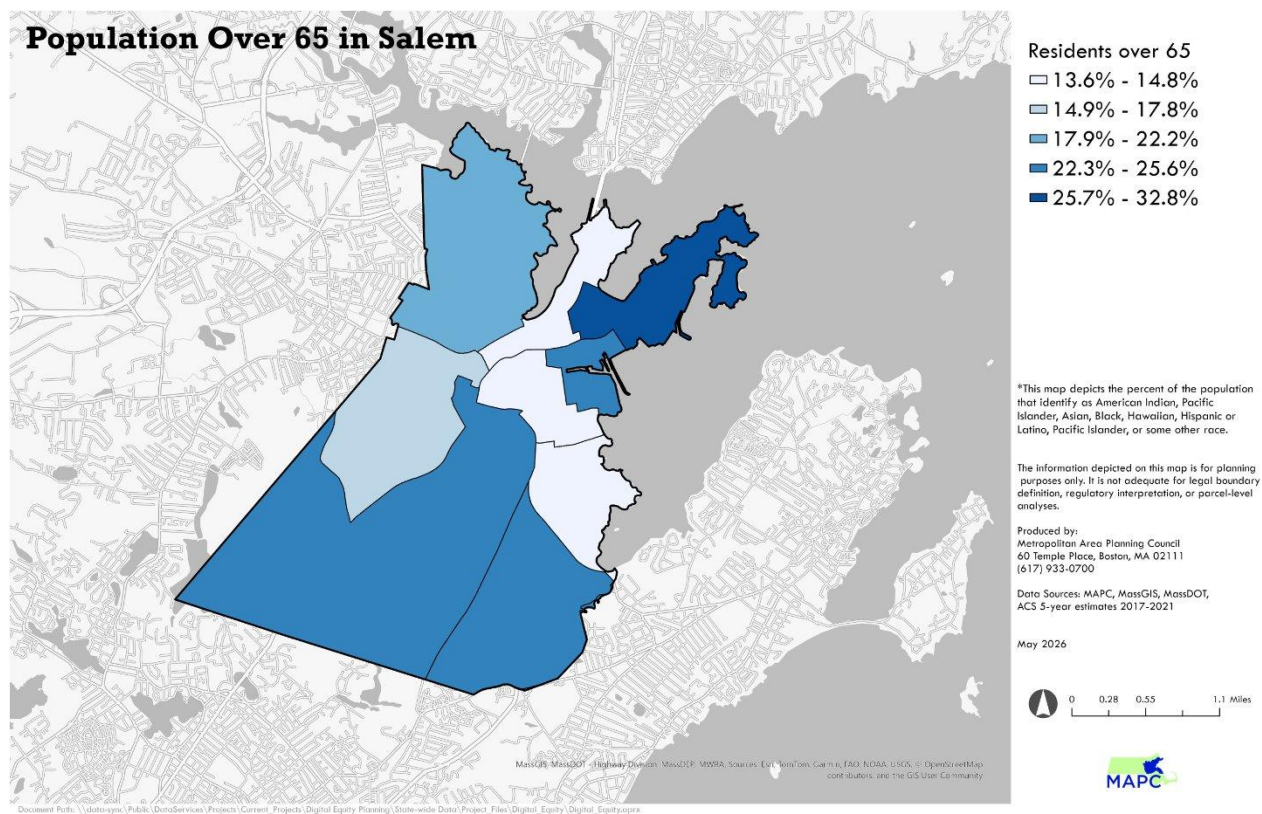
- Environmental Justice Communities
- Youth
- Domestic Violence Survivors
- Housing Insecure

## Age, Race and Ethnicity, Disability Status and Other Demographics

### Residents over 65 years

Neighborhoods with more older adults – especially Highland Avenue, South Salem, Vinnin Square, and North Salem – also tend to overlap with areas facing more limited digital access, including higher rates of households without computers and those relying only on smartphones.

Salem's older adults are growing fastest as a share of the population at the same time that disability rates rise sharply after age 75. This means the residents most likely to need telehealth and online benefits access are also the residents least likely to have grown up using the internet.



**Map 1: Percentage of residents 65+ years in each census tract in Salem. Each census tract is shaded according to the percentage of its population that is 65+ years.**

**How to read this map:** Each color represents a percentage range, with darker shades indicating census tracts where adults age 65 and older make up a larger share of the population. For example, a census tract shaded in the darkest color has 26-33% residents of 65+ years, meaning that 26-33% of people living in that census tract are 65+ years.

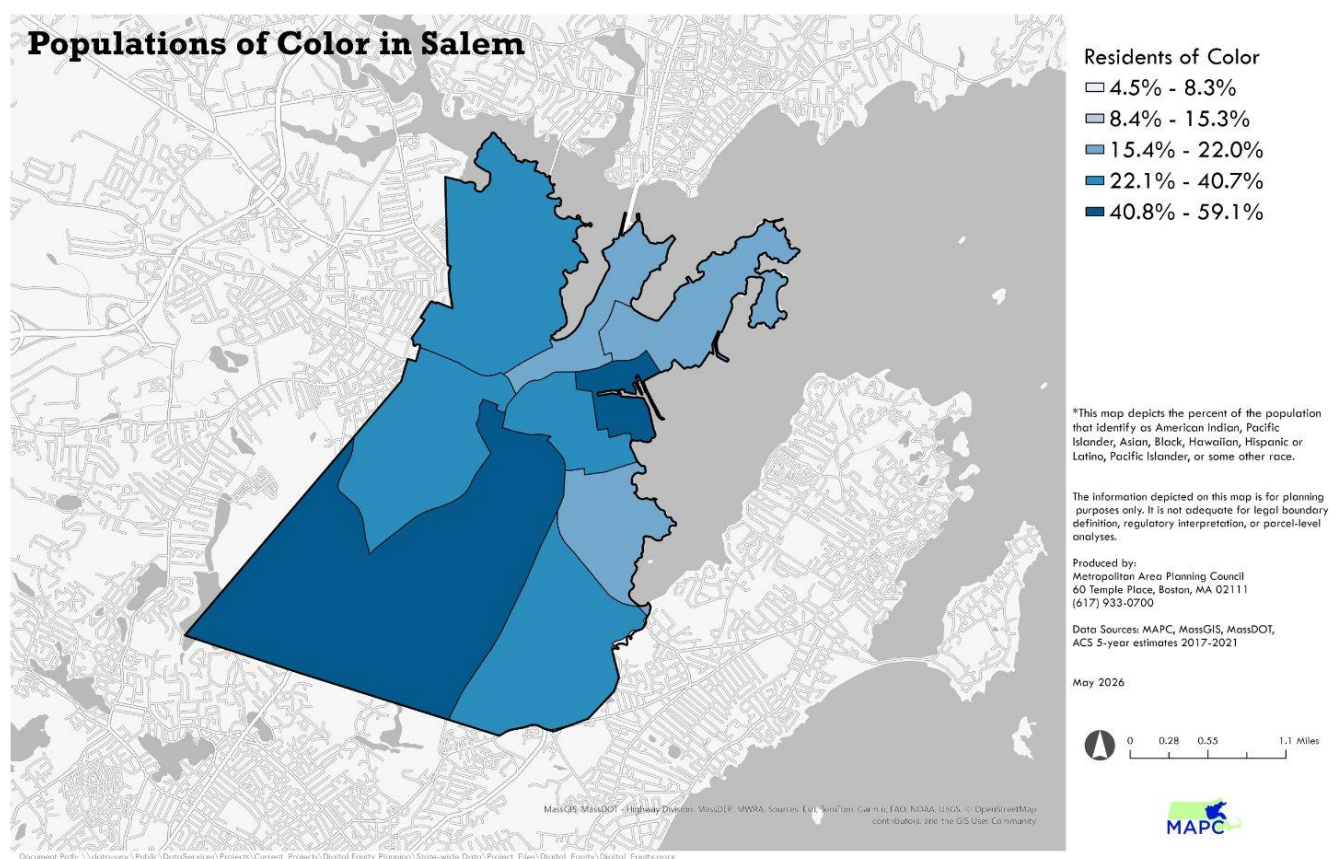
The map is intended to show the geographic distribution of residents 65+ years across Salem and where they make up a larger or smaller share of the local population.

### Race & ethnicity distribution

Residents of color are more concentrated in The Point, Downtown, Gallows Hill, and Witchcraft Heights. There is a strong overlap between these areas and higher rates of limited digital access, underscoring a disproportionate burden on these communities.

Table 1: Racial and Ethnic distribution of Salem residents

| Indicator                              | Value  | Source / vintage               |
|----------------------------------------|--------|--------------------------------|
| Total population                       | 44,480 | ACS 2020–2024 5-Year Estimates |
| White alone (not Hispanic/Latino)      | 66.4%  | ACS 2020–2024 5-Year Estimates |
| Hispanic or Latino                     | 20.7%  | ACS 2020–2024 5-Year Estimates |
| Non-Hispanic Black or African American | 4.6%   | ACS 2020–2024 5-Year Estimates |
| Non-Hispanic Asian                     | 3.4%   | ACS 2020–2024 5-Year Estimates |



Map 2: Percentage of residents of color in each census tract in Salem. Each census tract is shaded according to the percentage of its population that identifies as a person of color. Darker shades represent census tracts with higher percentages of residents of color

**How to read the map:** The map shows the racial composition of each census tract, rather than the total number of residents of color in Salem. Each color represents a percentage range. For example, a census tract shaded in the darkest color has 40–60% residents of color, meaning that ~40–60% of the people living in that census tract are people of color. The map is intended to show the geographic distribution of residents of color across Salem and where residents of color make up a larger or smaller share of the local population.

## Individuals living with disability

In Salem, accessibility needs are diverse and affect a significant share of residents. This highlights the importance of ensuring both physical and digital services are fully accessible and inclusive across disability types

|                                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Population with disability            | 5,161 | 11.56%     |
| Population with hearing disability    | 1,231 | 2.76%      |
| Population with vision disability     | 659   | 1.48%      |
| Population with cognitive disability  | 1,993 | 4.65%      |
| Population with ambulatory disability | 2,268 | 5.29%      |

### Summary Demographic Indicators Related to Priority Populations

The table below further highlights some of the key metrics that help understand the baseline for the priority population groups. For instance, housing cost burden documented in the table below is an important indicator to consider when assessing internet affordability at the community level: for cost-burdened households a monthly internet bill becomes a real choice rather than a given. Similarly, the proportion of older adults and youth prompts a deeper dive in understanding the unique challenges from their use of technology. The table also notes the percentage of Salem residents living in designated EJ block groups, that are determined by three indicators: minority, median household income, and households with language isolation.

Table 2: Demographic distribution of Salem resident per key priority metrics

| Indicator                               | Value    | Source                                                        |
|-----------------------------------------|----------|---------------------------------------------------------------|
| Speak English less than “very well”     | 8.1%     | ACS Population Profile, 2023                                  |
| Residents above 65 years                | 16.9%    | ACS 2020–2024 5-Year Estimates                                |
| Youth (Under 18 years)                  | 15.7%    | ACS 2020–2024 5-Year Estimates                                |
| Population with a disability (all ages) | 11.56%   | ACS 2020–2024 5-Year Estimates                                |
| Disability rate, residents age 75+      | 51.2%    | ACS Health Profile, 2023                                      |
| Work from home                          | 21.6%    | ACS 2020–2024 5-Year Estimates                                |
| Housing cost-burdened households        | 43.6%    | ACS 2020–2024 5-Year Estimates                                |
| Median household income                 | \$85,153 | U.S. Census Bureau QuickFacts, 2020–2024 ACS                  |
| Population living in EJ neighborhoods   | 66.9%    | MA Environmental Justice Neighborhoods – 2020 EJ block groups |

### Environmental Justice (EJ) Communities

Neighborhoods identified as EJ communities, such as The Point and parts of Downtown, often combine multiple of the demographic characteristics highlighted above and also show higher rates of limited digital access, indicating overlapping and reinforcing inequities, and pointing to priority areas for targeted, place-based investment.

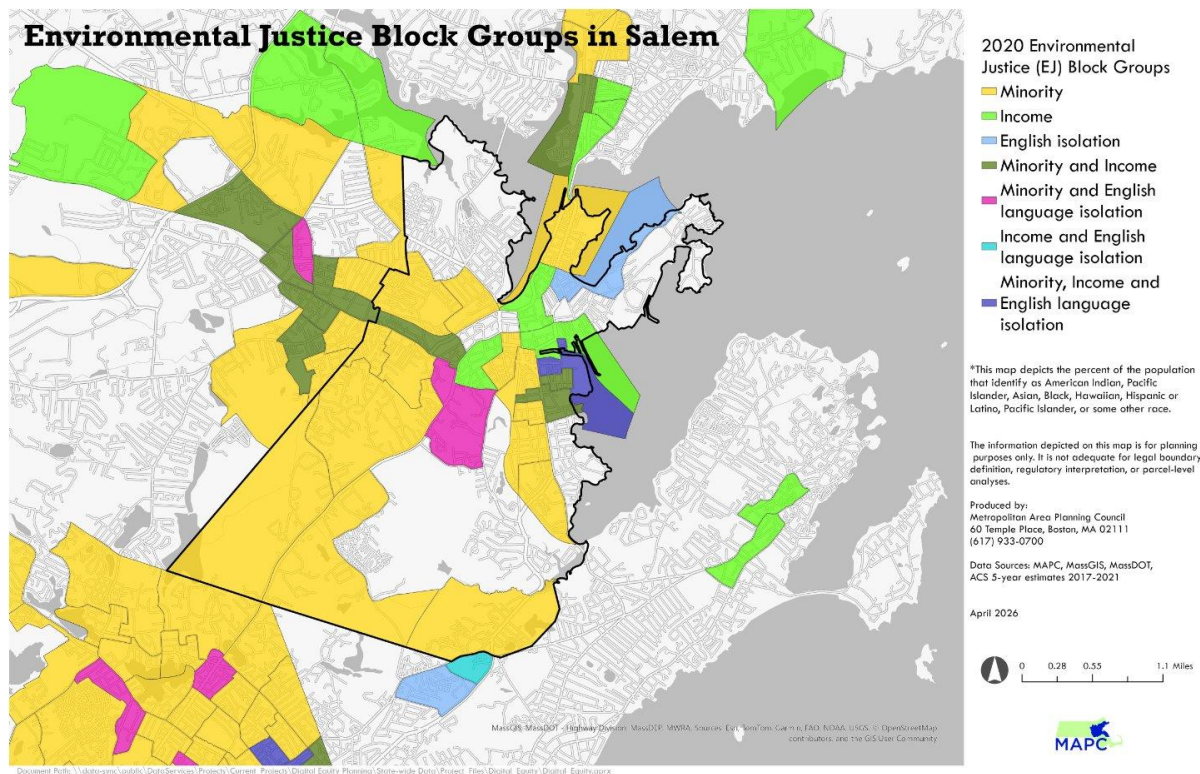
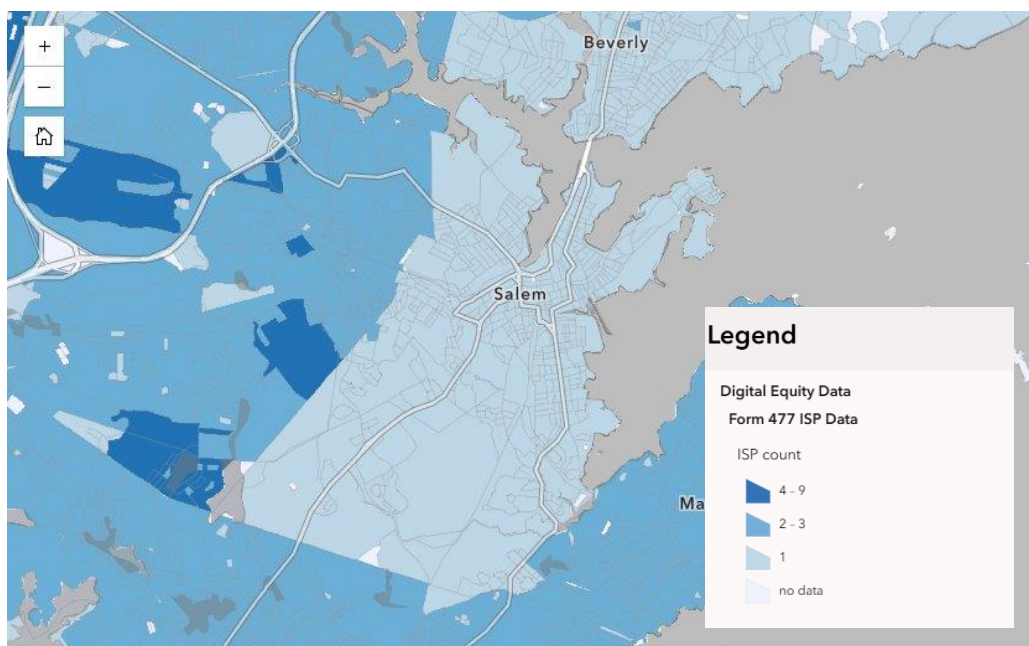


Image: Environmental Justice (EJ) communities in Salem

## 2.3 Broadband Infrastructure

Broadband availability in Salem is high, but **competition is low**. Nearly all Broadband Serviceable Locations (BSLs) have access to at least one wired internet service provider (ISP). Bakers Island is the only area of the city without access to broadband infrastructure.



Map 3: Fixed Broadband Deployment Data from FCC Form 477

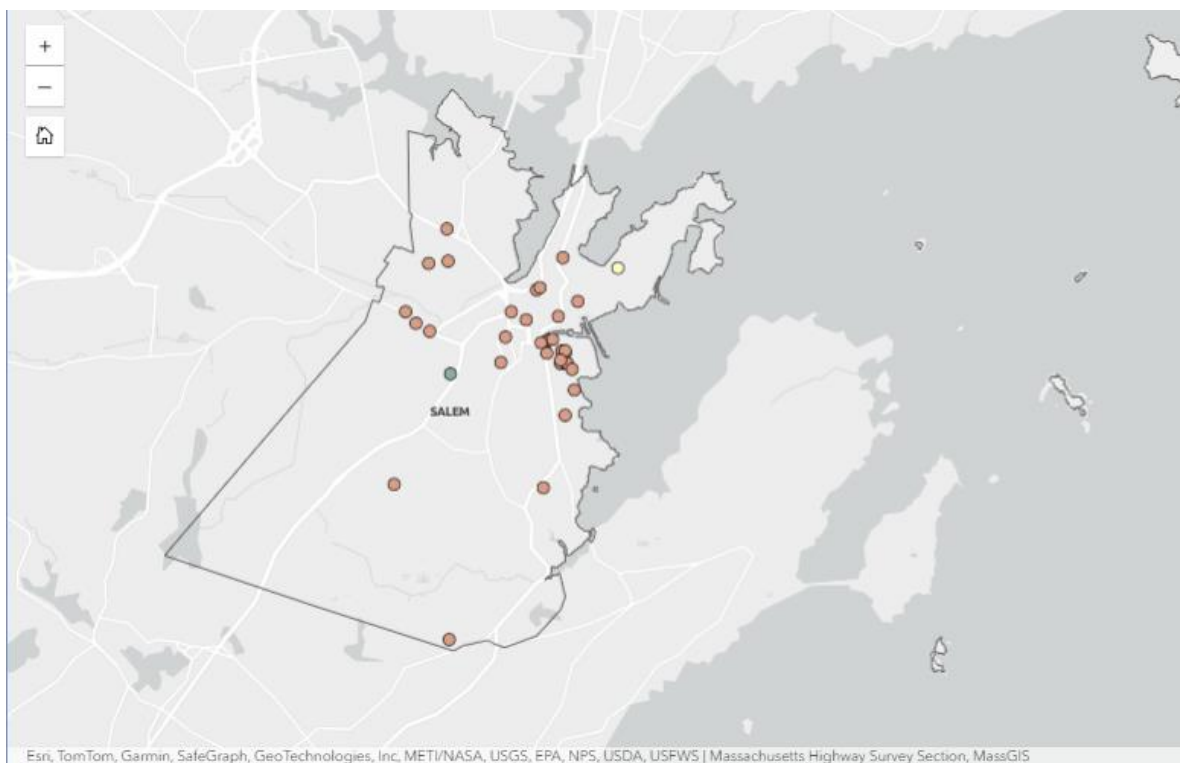
The provider breakdown below explains a frustration residents raised directly in community engagement: when most locations have only one realistic option, a comment like “if I could switch providers, I would, but I can’t” (Section 3.3) is not an isolated complaint. The coverage data below shows that a renter or homeowner in most of Salem has little choice in providers.

Table 3: Internet Service Provider (ISP) choice by technology type, coverage, and connectivity speeds

| Provider                                   | Technology     | Coverage              | Max speed      |
|--------------------------------------------|----------------|-----------------------|----------------|
| Comcast Xfinity                            | Cable          | 100% of BSLs (11,514) | 1200/35 Mbps   |
| RCN (Astound Broadband)                    | Cable          | 5% of BSLs (572)      | 1000/20 Mbps   |
| T-Mobile Home Internet                     | Fixed wireless | 9% of BSLs (1,036)    | 100/20 Mbps    |
| Comcast                                    | Fiber          | 1 BSL                 | 6000/6000 Mbps |
| RCN (Astound)                              | Fiber          | 1 BSL                 | 1000/1000 Mbps |
| Westfield Gas & Electric (Whip City Fiber) | Fiber          | 2 BSLs                | 1000/1000 Mbps |

Interestingly, the Community Advisory Group discussions and resident engagement revealed that many of the (disproportionately higher-need) residents engaged use T-mobile service for at-home internet connection.

MBI’s residential retrofit program is bringing broadband infrastructure to public and affordable housing properties in Salem. The MBI map below shows a total of **1,472 housing units** across **36 properties served** by the Residential Retrofit program. The properties served are owned by NSCDC; Preservation of Affordable Housing (POAH), a non-profit developer; and Related Affordable, a private developer. Salem Housing Authority was also awarded the retrofit program to serve an additional 665 public housing units.



Map 4: MBI's Residential Retrofit building sites across Salem (

Complete Construction Design/Planning

In addition to the above broadband connection data and affordable housing retrofit sites slated for broadband infrastructure improvements, NSCDC manages a mesh network serving roughly 1,100 units in the Point neighborhood.

*“The neighborhood you’re sitting in [Point neighborhood] is Massachusetts first digital equity neighborhood with free Wi-Fi inside and out via the North Shore CDC and I think that is leading the entire Commonwealth in digital equity.”*

– Community Advisory Group member

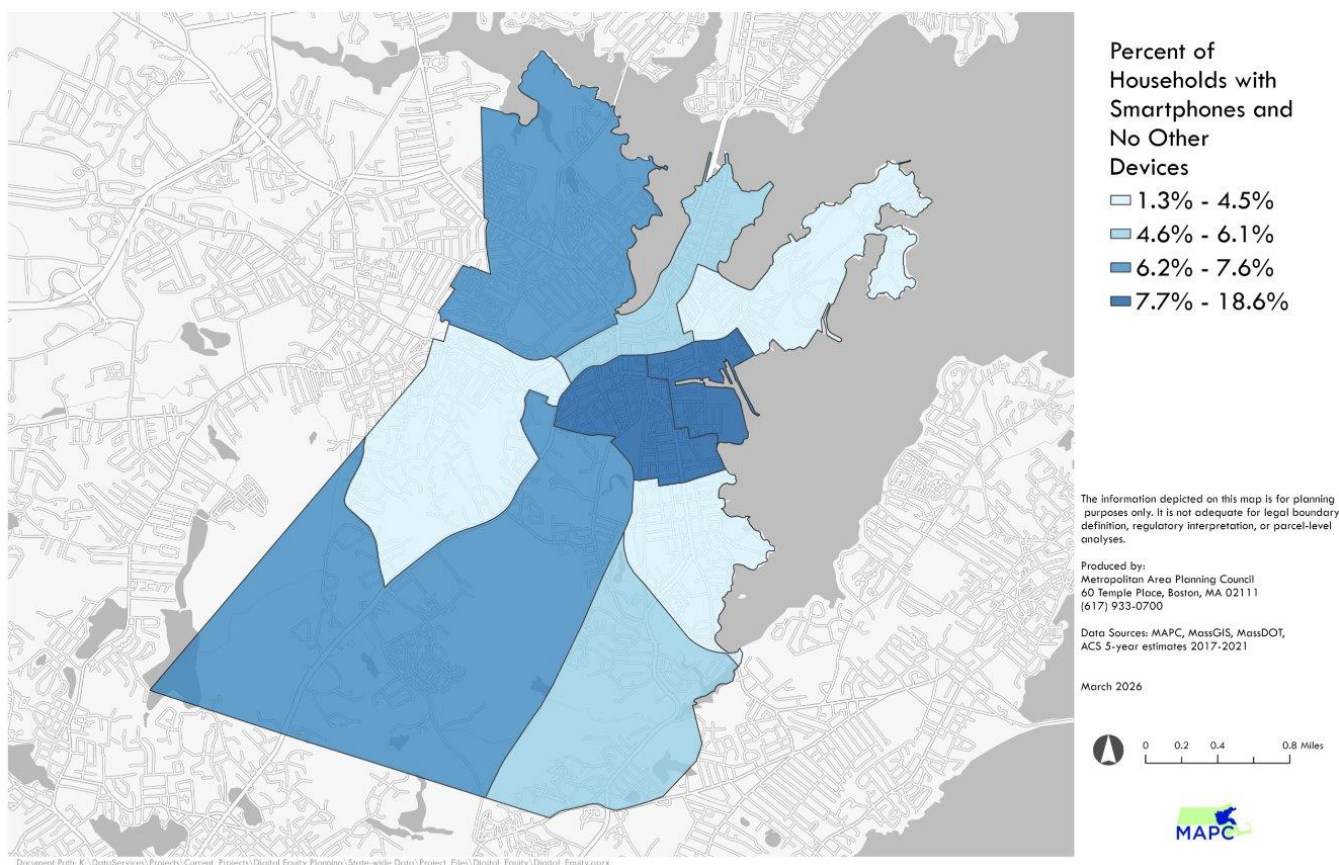
## 2.4 Connection Metrics (Adoption)

The household digital access indicators below, sourced from the American Community Survey, align closely with what Salem residents reported directly in the Spring 2026 Digital Equity Planning survey. In that survey, 77% of connected respondents called their service too expensive and 58% reported unreliable performance (Section 3.2). The data below shows how many households are affected citywide; the survey responses and resident interviews in Section 3.3 offer more detail on how these households experience the digital divide.

Table 4: Lack of access by household income type

| Indicator                              | Count        | % of Households |
|----------------------------------------|--------------|-----------------|
| Total households                       | 20,267 ± 583 | –               |
| Households with no internet (any type) | 1,951 ± 529  | 9.6%            |
| – of which, income under \$20,000/yr   | 989 ± 404    | 40.5%           |
| – of which, income \$20,000–\$74,999   | 775 ± 383    | 11.7%           |
| – of which, income \$75,000+           | 187 ± 132    | 1.7%            |
| Households with no computing device    | 1,402 ± 520  | 6.9%            |
| Households with smartphone only        | 1,505 ± 427  | 7.4%            |

Compared with neighboring communities, Salem has a **higher** share of households lacking computing devices, broadband, or relying on smartphone-only access than Beverly, Peabody, or Lynn, and is roughly comparable to or worse than Danvers across all three measures (American Community Survey, U.S. Census; full comparison table in Appendix I).



*Map 5: Percentage of households in each census tract in Salem with smartphones only*

**How to read the map:** The map shows the percentage of households who use smartphones only and each color represents a percentage range. For example, a census tract shaded in the darkest color has the highest proportion, 7.7 – 18.6%, of households using only smartphones for device use. The map is intended to show the geographic distribution of households across Salem with no devices other than smartphones.

Geographically, the highest shares of households without internet are concentrated in **Downtown, The Point, Salem Willows, and Highland Avenue**, followed by South Salem. Smartphone-only reliance is most concentrated in **Downtown and The Point**. These are the same neighborhoods that show elevated rates of limited digital access generally, and that overlap substantially with Environmental Justice block groups (Appendix I).

## 2.5 Affordability

**Affordability, not availability, is the central barrier identified** across every data source in this plan – Existing Conditions analysis, the Digital Equity Planning resident survey, and stakeholder and resident interviews alike.

### The ACP cliff

The federal **Affordable Connectivity Program (ACP)** provided a \$30/month subsidy to income-eligible households from December 2021 until it wound down in June 2024. According to the Benton Institute's ACP Enrollment Performance Tool, **8,964 Salem households were eligible**, of which **2,439 enrolled**. Those households lost access to a combined **\$73,170 per month (≈\$878,040 per year)** in subsidy that is not currently being replaced by any federal or state program.

Comcast Internet Essentials remains available to income-eligible households at roughly \$15–\$30/month, and many Salem Public Schools families access it through National School Lunch Program eligibility. However, stakeholders consistently describe **enrollment friction** including eligibility paperwork, prior Comcast account history, and language access as a barrier that is as significant as price itself (Landscape Analysis Findings, Section 3).

Additionally, housing cost burden compounds this dynamic directly: **with 43.6% of Salem households already spending more than 30% of income on housing, internet service is frequently the expense that gets cut first when budgets tighten.**

## 2.6 Device Access Statistics

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Device access gaps are concentrated among the same populations affected by affordability barriers. Groups in Salem with the largest gaps in access to a computer, according to the American Community Survey, include:

- **14% of residents aged 65+ years** (1,098 of 7,615), compared to 1.5% for residents under 65 years.
- **6.2% of Hispanic or Latino** (564 of 9,100), compared to 3.9% for white non-Hispanic.
- **27% of residents with less than a high school education** (722 of 2,638), compared with 1.78% of residents with a bachelor's degree or higher.
- Residents in Salem's **Willows and Highland Avenue neighborhoods**, which have the highest shares of residents without computer at home, ranging from 10%-13%, compared with 3.14% citywide.

**These statistics are reinforced by the Digital Equity Planning survey respondents.** Respondents who said their household sometimes or often lacks enough devices cited affordability as the overwhelming reason, not lack of access or interest (Section 3.2). For more detailed demographic breakdowns on Salem residents without access to a device, or only access to a smartphone, see Appendix I.

## 2.7 Digital Literacy and support

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**Municipal partners provide a breadth of digital literacy services and staff support to Salem residents.** Salem Public Schools, the Salem Public Library, and the Council on Aging (COA) provide a range of programs and direct support; the library offers in-person, on-demand tech support, and a COA community member helps older adults with phone-related technology support. For more details on each of these partners, see Appendix K.2.

**Providing language support for municipal digital services remains a top priority for the City of Salem.** Many essential services including permits, school registration, parking, and other municipal processes are now online-only, and municipal staff actively work to bridge that gap to achieve accessible and convenient use.

*"We are doing better in addressing needs in Spanish, which is the largest language other than English. And so Spanish is mostly covered in a lot of ways, but it's the one language that we should be offering no matter what...But we're really struggling to meet language needs other than Spanish, and that includes Portuguese and Haitian Creole and other top languages in the city."*

**– City staff**

**Salem's municipal digital services connect constituents with targeted support for marginalized communities.**

As more services move online, not all residents can easily navigate them; Constituent Services staff serve as a bridge. Targeted support is needed for platforms such as CodeRED, SeeClickFix, and neighborhood Facebook groups, using tabling, print materials, on-site assistance, and QR codes. Police, Fire, and DPW/Engineering alerts are widely used, with many residents already enrolled. The City is interested in a public digital services inventory and an internal vendor-contract inventory for accountability and machine-readable data access.

Most importantly, **community organizations form the backbone of digital literacy and skill building support.** Organizations like HAWC, NSCDC, Lifebridge, and the food pantry are the first line of support for many residents in need through training classes, 1:1 support for digital navigation, and more. NSCDC presents a case study for scaling similar efforts, where they invest in resident leaders through their resident ambassadors program, training peer leaders to facilitate technology classes within their own communities.

*“They not only send me emails – they’ve booked flights and use the patient gateway. They have access to the patient gateway, I teach them all the little details that they always want to learn.”*

– NSCDC staff

## 2.8 Digital Services Review

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A key area of both digital equity need and opportunity that emerged during the planning process was that of **Municipal Digital Services**: the delivery of municipal government information, transactions, programs, or services directly to residents, businesses and other stakeholders via websites and online applications or platforms. Offering online options for local government transactions, applications, communications, and participation is a critical 21st century need and expectation—one that can increase the reach and availability of government programs and services by providing round-the-clock access that doesn’t end when city hall closes. Digital services also provide opportunities for increased municipal government transparency and efficiency, generating structured data to help drive decision-making, which is often easier to summarize and/or share with the public than physical records.

As part of existing conditions research and community needs assessment conversations, MAPC compiled a preliminary inventory of the city of Salem’s municipal digital services (including a few additional digital services relevant to the community but not strictly run by the municipality, such as the Blue Bikes app or MBTA app). MAPC also conducted conversations with the Salem IT department, with constituent services staff, with the diversity, equity, and inclusion staff, with the planning department, and with the Mayor’s office to learn more about the City’s general approach to digital service offerings and to gain more insight into specific service offerings such as the city’s content management system/website, Civic Plus; (former) emergency alert notification system, CodeRED; and online permitting system, OpenGov. Several of the recommendations in this plan emerged from these conversations.

Additionally, MAPC also noted recommendations from the [City of Salem 2024 Equity Audit](#) related to Information Access and Relationship Building—key aspects of diversity, equity, and inclusion efforts that dovetail with digital services.

### 2.8.a. Key Digital Services Learnings and Needs

#### **Ensure Digital Services are available and accessible, especially to high need populations**

Municipal digital services are essential. At the same time, as local governments increasingly conduct their business, operations, and communications online—for example via online bill payment, online permitting, online records portals, or online council meetings conducted on zoom, etc.—it becomes more and more important for municipalities to ensure that no one is left behind: including and especially residents who may be newer to digital technologies, such as older adults or immigrants, or those who otherwise face barriers to digital access, such as those living with disability, or those with less than proficient English language skills.

#### **Promote and support digital services online and IRL**

Salem City Hall needs to ensure that residents are made aware of municipal digital services and are supported in how to use them. Promoting digital services in real life interactions and marketing them both online and in the real world (including via QR codes that can help bridge the difference) is key to spreading awareness. Having how-to instructions, tutorial videos, FAQs, or tech support in the form of a live chat, phone number, or contact person can also make a big difference for supporting users—especially those most in need of support.

#### **Ensure software meets accessibility standards and provides language access support**

Beyond marketing, promoting and providing tech support for digital services, municipal governments should also ensure that digital services software is itself technically inclusive, accessible and usable for everyone who might need to use it. Digital services should meet standards for accessibility, such as [ADA title II requirements](#), ensuring

those living with visual impairment, auditory impairment, fine motor skill impairment or other kinds of disability can still fully participate in online transactions, program offerings and information services. Local government software should also be offered in ways that take advantage of web browser language translation capabilities and/or allow for language access via translation tools embedded directly in the user interface. Importantly, digital services should be easy to use and intuitive enough that users don't get stuck or frustrated trying to complete simple tasks like filling out a form, submitting a request, providing public comment, or whatever else they may need to do.

### **Center equity and inclusion in digital services work by building on the 2024 Salem Equity Audit Report**

These ideas connect well with existing recommendations from the 2024 City of Salem Equity Audit Report, including:

- Simplifying the user experience of the centralized hub for City resources, including services and active community resources and groups, in the upcoming website redesign. This may be as simple as refreshing the design of, placement of, and naming of the current Salem Together and City Services webpages.
- Updating the website to incorporate ADA-compliant design.

### **Leverage best practices in software procurement and contract management**

Because so many digital services are provided via contracts with software as a services (SaaS) companies and vendors, software procurement specifications and contract management are also critical to ensuring that municipal services are provided in ways that meet the above best practices. Bid specifications can require accessibility and language/translation features, can require the provision of tutorial materials or even of real-time user support features.

Additionally, municipal governments should make sure that software contracts match best practices in data ownership, access, and portability, ensuring access to back-end data entered and maintained by city staff, and preventing vendor lock-in.

### **Audit digital services and work with residents to test them for usability**

The City of Salem is still early in its adoption of and transition toward a digital-services-first approach. This means that many of the software services offered have not been fully evaluated, or user tested to ensure widespread awareness, user support, inclusivity across ability, and intuitive design needed for digital services to succeed.

## **Code Red Case Study: An Emergency Alerts Emergency**

After a data breach and ransomware attack in 2025 resulted in the deployment of a revamped software platform for the emergency alerts application CodeRed, residents of Salem and other municipalities that utilized the CodeRED emergency alert system—a digital services software that allows residents to sign up online to receive announcements and alerts via email, text, and phone call notifications from City Hall—reported reliability issues. City staff responsible for overseeing emergency alerts experienced problems as well. Some residents who were previously subscribed to receive alerts weren't receiving them; some former residents who had moved away and ended their subscription to the service were getting alerts they didn't want. Notifications were sometimes going out in languages that didn't match the preferences users had specified. Residents missed important announcements about emergencies like dangerous weather conditions or bomb threats, as well as urgent notices about parking bans, street closures, delays in trash pickups, and more. Missing these alerts could have negative impacts on residents' safety, pocketbooks, quality of life—and ultimately on their trust in City Hall.

*"If there's a road closure and vehicles are left on the streets, they will get ticketed or towed. Obviously, that's a horrible hardship...You have to pay potentially hundreds of dollars, or maybe more if you don't know and really let your car sit in the tow lot...it could be very expensive, so we don't want people missing these alerts." - City of Salem Constituent Services Director*

Complaint calls to City Hall regarding the emergency alerts system jumped from an average of one or two per week to close to 30. Even Mayor Pangallo stopped receiving notifications he had signed up for. By February 2026, Salem was exploring alternatives for when the CodeRED contract expired at the end of the fiscal year, and by June 30<sup>th</sup> 2026 the city had switched to a new emergency alerts software vendor, Regroup.

This experience with a government software vendor gave Salem's city hall staff, including the mayor's office and constituent services team an opportunity to reflect on municipal digital services and how best to manage them, both when they are working—and when they aren't.

#### The successes:

The City of Salem had been utilizing CodeRED since 2013, and for the most part, this foray into utilizing a digital service for civic announcements and emergency alerts has been a success.

**High adoption** - By 2025 the city reported that over 20,000 users were signed up to receive alerts from Salem City hall via CodeRED, which, accounting for the fact that many households include children and/or married couples where only one spouse will sign up, means that the vast majority of Salem's approximately 20,000 households were receiving civic announcements and emergency alerts.

**Effective promotion and outreach** - The city achieved this sign-up success by promoting CodeRED sign-ups heavily, including online, but more importantly during in-person outreach and at community events—especially those engaging residents less likely to be familiar with Salem's online resources. The constituent services team utilized handouts, brochures, and QR codes and ensured that outreach was multilingual to reach all households. When someone buys a home in Salem, they receive a new resident guide, which included instructions for how to sign up. Salem constituent services had even gone door knocking to help residents sign up and ensure that emergency alerts were reaching their intended audience.

**A knowledgeable working group of municipal admins** - The CodeRED software allowed multiple departments to work together to administer the system. This resulted in a core internal admin user team of around 7 city staff from multiple departments, including constituent services, the police department, and engineering, who could all share tips and tricks to troubleshoot using the app.

It was also a success that when the CodeRED platform began experiencing major issues in 2025, Salem was able to respond quickly, make fixes to some of the problems, coordinate with other communities like Peabody, and evaluate alternatives. The result was that Salem was able to utilize the state contract to switch to a more reliable software vendor and digital service for residents.

#### Reflection on challenges and how to address them going forward:

Salem also experienced various challenges with CodeRED, especially during 2025, each of which offer an opportunity to inform City Hall's approach to digital services going forward:

#### **User data access, management, and ownership**

| Challenge(s)                                                                                                                                                                                                                                                                                                                                                                                                | Lesson(s) going forward                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| When CodeRED's systems were breached user data had to be restored to the new platform by the vendor from a previous backup, resulting in many users being unintentionally removed from the service, some users getting duplicated, and some users who had unsubscribed being added back in. The city estimated that thousands of users were lost and that even for remaining user data, vital details, like | Salem should make sure software contracts specify data access and ownership terms, ideally granting unrestricted ownership to city hall for data that city staff enter and maintain in the software, and at a minimum ensuring data portability: the ability to export data from a software system so that it can be backed up and potentially re-used in another vendor's system. |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <p>language preferences, device/notification preferences, addresses, etc. may have been lost or scrambled.</p> <p>After this happened, it was not easy for city staff to fix it. It was hard for them to access user data outside of the software systems user interface, and not clear whether the city could get a backup copy of the data. Instead, Salem was reliant on an external software vendor for access to the information that city staff themselves had helped gather and maintain. While ultimately, user data was able to be transferred to the new software system, Regroup, staff were not confident at the time that they wouldn't need to start over with zero users if they switched.</p> | <p>Technical data access requirements like the ability to access and back up all data via "bulk download" and/or via "application program interface" are also a good idea for any government software.</p> <p>Finally, Salem should consider working with its IT department to maintain its own user data via a customer relationship management (CRM) system, with personally identifiable user data properly secured and kept private, but available to backup software systems like emergency alerting, should the vendor experience a data breach or should the city choose to switch to a different software vendor. Such a system would allow Salem to maintain persistent constituent user records regardless of software vendor, potentially making it easier for residents to sign up for multiple digital services at once, and guarding against the risk of software vendor lock in.</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Language access features

| Challenge(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Lesson(s) going forward                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Although CodeRED had some features allowing users to specify a language preference, translation was not built into the software service but instead had to be done by city staff. Special characters common in Spanish also weren't supported, and because of issues with user data and potentially with the software itself, the language preference feature was often unreliable. As a result, staff resorted to sending almost all alerts to everyone in both English and Spanish causing confusion for residents who hadn't signed up for Spanish, and creating extra alerts for everyone.</p> | <p>Salem should make sure that software vendors provide robust language access features, including supporting special characters, and if possible, translation.</p> |

### Contract management and enforcement

| Challenge(s)                                                                                                                                                                                                                                                                                                                                                                                                                                       | Lesson(s) going forward                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Luckily for Salem, CodeRED's contract expired not too long after users began experiencing issues. Even so, there were still issues holding CodeRED accountable for addressing issues in a timely manner. A fear for many municipalities is not being able to report and escalate software issues to a vendor to get them resolved in a timely manner, or worse having to pay for a software service, even when it is failing or unreliable.</p> | <p>Software contracts typically include "Service Level Agreements" (SLAs) that specify what kinds of performance conditions need to be met and allowing software customers to exit a contract without having to pay for services below the SLA. Salem should ensure that its software contracts specify how software issues will be resolved, including response times from the vendor, and allow the city to withhold payment or exit a contract if basic services are not being delivered.</p> <p>Salem should also ensure that there is a clear contract "owner": a city staff person responsible for communicating with the software vendor and monitoring their performance.</p> |

## 2.8.b. Preliminary Inventory of Municipal Digital Services

A preliminary inventory of municipal digital services software applications audited as part of MAPC's research can be viewed here: <https://airtable.com/appONfT6ORXSFNoWd/shr0i3VnDHtP0Racr>

Digital Services Inventory > Local + Municipal Digital Service

| service_name                  | service_description | platform/vendor       | Link                                                                    |
|-------------------------------|---------------------|-----------------------|-------------------------------------------------------------------------|
| Civic Notifications           | –                   | Notify Me             | <a href="https://www.salemma.g...">https://www.salemma.g...</a>         |
| Emergency Alerts (deprecated) | –                   | Code Red              | <a href="https://www.salemma.g...">https://www.salemma.g...</a>         |
| Online permitting             | –                   | OpenGov               | <a href="https://salemma.portal.o...">https://salemma.portal.o...</a>   |
| 311 Issue Reporting           | –                   | SeeClickFix           | <a href="https://seeclickfix.com/...">https://seeclickfix.com/...</a>   |
| Bill payment                  | –                   | Kelly and Ryan        | <a href="https://epay.kelleyryan.c...">https://epay.kelleyryan.c...</a> |
| Cemetery Find                 | –                   | DocuFree Cemetery ... | <a href="https://cemeteryfind.co...">https://cemeteryfind.co...</a>     |
| Resident Parking Permits      | –                   | Passport              | <a href="https://salemma.cmrrpay...">https://salemma.cmrrpay...</a>     |
| Parking Meter Payment         | Open > –            | Passport              | <a href="https://www.salemma.g...">https://www.salemma.g...</a>         |
| Salem Skipper                 | –                   | Via                   | <a href="https://www.salemma.g...">https://www.salemma.g...</a>         |
| Blue Bikes                    | –                   | Lyft                  | <a href="https://bluebikes.com/h...">https://bluebikes.com/h...</a>     |
| Recreational Programs         | –                   | MyRec                 | <a href="https://salemma.myrec...">https://salemma.myrec...</a>         |
| Public Records Portal         | –                   | Laserfiche            | <a href="https://records.salem.co...">https://records.salem.co...</a>   |

Figure 1: Salem municipal digital services inventory

## 2.9 Digital Equity Assets and Opportunity Sites

Digital Equity assets are the network of digital access, resources, and community networks. Within this network, the community organizations form the **trusted community connection**. Organizations engaged through this plan development emphasized that trust and long-standing relationships with residents are critical. Lifebridge, HAWC, and NSCDC have built strong connections over time, making residents more comfortable seeking help through these organizations (refer to Appendix K.2 for more detail). The table below notes some of the Digital Equity assets in Salem along with their current services and opportunities to expand their service.

Section 1.3 above introduced the anchor and community-based organizations that make up the backbone of Salem's digital asset landscape; the table below highlights physical sites within that landscape with near-term opportunity for expanded digital equity investment. These opportunities were identified through landscape analysis interviews and Community Advisory Group discussions. The full 100+ asset inventory is reproduced in Appendix G and Appendix I.

Table 5: Key digital equity community assets in Salem

| Asset / site                                              | Existing service                                                                                                                                                                | Opportunity                                                                                                                                                                                              |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Salem Public Library                                      | Computer use, printing, and on-demand tech support. They also have public Wi-Fi during working hours as well as tablet and hotspot access,                                      | Restore extended exterior Wi-Fi hours; expand device lending capacity; Support library staff to provide tech support services for the residents they serve                                               |
| Community Life Center / Council on Aging                  | COA previously ran a senior computer training program and have Chromebooks available for reuse. They also manage a small computer lab with laptops.                             | Activate existing but underused Chromebooks and computer room with dedicated staff capacity                                                                                                              |
| Salem Housing Authority sites                             | Resident service staff help with digital navigation                                                                                                                             | Complete MBI-funded retrofit fiber;                                                                                                                                                                      |
| Salem Food Pantry second market location (in development) | Provide an online sign-up system                                                                                                                                                | Add Wi-Fi during build-out; pair with under-used online sign-up system                                                                                                                                   |
| North Shore Community Development Coalition (NSCDC)       | They manage a neighborhood mesh network serving 1,100 units, device distribution through TEK Collaborative, and digital literacy training for older adults and Spanish speakers | Expand digital literacy classes to include curricula on AI literacy and workforce development; Seek sustainable funding to continue incorporating digital equity services into their program priorities. |
| Healing Abuse Working for Change (HAWC)                   | They have multiple avenues for device access including public computer setup as well as Chromebook and mobile hotspots distribution.                                            | Building technical capacity of HAWC staff to address the tech support needs of the individuals they serve; Continue hotspot and Chromebook distribution.                                                 |
| Lifebridge                                                | Device chargers. Phones for use, and office space for people to take Zoom meetings or telehealth appointments                                                                   | Staff support to provide digital navigation and tech help                                                                                                                                                |



## 3. Community Needs Assessment

### 3.0 Overview

The Community Needs Assessment draws from the Existing Conditions data, community engagement through resident interviews and stakeholder landscape analysis, and the Digital Equity Planning resident survey. Together, they help outline the community's key challenges and needs. It emphasizes that **affordability is Salem's central digital equity barrier**.

The affordability barrier further deepens gaps in device access and digital literacy. The sections below dive deeper into findings from resident engagement that reflect the challenges Salem residents experience in accessing appropriate devices, as well as the nature of digital skills and literacy gaps. These challenges are further compounded by accessibility barriers when using digital services and persistent language access friction for Salem residents who speak Spanish, Portuguese, Arabic, Haitian Creole, and Albanian. Stakeholder and resident conversations also revealed structural challenges, including institutional capacity constraints and limited awareness of existing resources and services. Together, these challenges influence the three components of the digital equity framework: broadband connection, device access, and digital literacy.

### 3.1 Survey Overview

The Digital Equity Planning survey, distributed online as well as in person, received **393 responses**. It is a valuable source of resident voices that complements the evidence from Salem's priority populations. Survey respondents tended to be more white, higher-income, and had more education than the average Salem resident, which means that the responses don't capture the full extent of the digital equity gaps that exist in the city. Findings from the survey should be considered alongside the Existing Conditions data in Section 2.

- 81% of respondents identified as white, versus 68.5% citywide.
- About half of respondents reported a household income of \$100,000 or more, which skews high-income compared to the \$85,000 median income in Salem as a whole.
- 74% of respondents hold a bachelor's degree or higher (38% four-year graduates, 36% also holding a postgraduate or professional degree), compared to 48% of Salem residents overall with a bachelor's or more.

### 3.2 Key Survey Findings

The table below summarizes what residents reported through the survey instrument. The resident voices in Section 3.3 and the stakeholder themes in Section 3.4 provide additional context beyond survey results.

*Table 6: Summary of digital equity planning survey findings*

| Topic                               | Finding                                                                                                |
|-------------------------------------|--------------------------------------------------------------------------------------------------------|
| Have internet service               | 98% yes (384 of 393); of the 2% without service (6 respondents), 83% cited affordability as the reason |
| Provider among connected households | 85% Comcast, 5% T-Mobile, 5% Verizon, 4% other                                                         |
| Connection type                     | 94% have Wi-Fi; 52% have mobile service; 38% have wired/ethernet                                       |

| Topic                                    | Finding                                                                                                                                                                |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Service adequacy                         | 32% “disagreed” or “strongly disagreed” that home internet meets their household’s needs                                                                               |
| Top complaints (connected households)    | 77% “too expensive”; 58% “service cuts out or drops”; 31% “very slow”; 25% poor ISP service or difficult installation                                                  |
| Bill affordability                       | 6% (20 respondents) found their bill “very hard” to pay; 24% (85) “somewhat hard”; 70% “somewhat” or “very easy”                                                       |
| Device adequacy                          | ~20% “sometimes,” “often,” or “always” lack enough devices for their household (52 / 9 / 12 respondents respectively); affordability was the overwhelming reason cited |
| Digital skills support sought            | 56% prefer online self-paced training; 21% (83 respondents) want one-on-one in-person help; 20% (80 respondents) want in-person classes                                |
| Internet use cases                       | 89% for healthcare communication; 74% for work; 68% for government services; 25% for school                                                                            |
| Use of Salem’s online government portals | 88% have used them; of those, 68% found them “somewhat easy,” 12% “very easy,” and 13% “not easy at all”                                                               |
| Internet safety concern                  | 50% “very concerned”; 43% “somewhat concerned”; 3% “not at all concerned” – yet 93% also felt at least “somewhat confident” maintaining their own safety online        |

### 3.3 Resident Voices and Engagement Findings

#### 3.3.a. Individuals belonging to socio-economically high-risk populations experience barriers to safe and supportive technology access

Individuals belonging to socio-economically high-risk populations experience barriers to safe and supportive technology use.

*“I actually have had that problem for a long time, I was just homeless for 10 years in Boston on Mass Ave... like libraries, stuff like that, it’s not an option. As soon as you step in the cops are called, even if you’re not doing anything wrong.”*

– Resident interviewed at the Point neighborhood laundromat engagement

Community-based organizations like HAWC also highlighted the complex and often overlooked role of technology in vulnerable situations, such as domestic violence. Additionally, privacy and tech use also came up in how residents access technology in public spaces. There is a need for community- or public-space access to internet and digital resources with private space for us.

*“So we had a period of time when I wasn’t able to work, when I was a full-time student and I have kids... it was very hard also to get internet at home... I have to go to the library to get access. So it would be a good idea for helping low socioeconomic families who cannot afford to get internet through their home.”*

– Parent, multilingual family night engagement

### 3.3.b. Poor internet quality and affordability challenges are prevalent in Salem

Unreliable internet connections have limited access for residents, with many experiencing inconsistent, slow, and unreliable connections. These issues of spotty internet service is especially pronounced during storms and periods of high demand such as during tourism season. Vast majority of residents during engagement at the St Peters- San Pedro church also stressed that their internet connection was slow and unreliable.

*“The challenge you face is sometimes the internet connection is really spotty and slow. If there's like storms it's slow, or like when there's a surge in tourism here in Salem it gets really slow and we lose a lot of connectivity.”*

– Salem Housing Authority resident

Additionally, limited internet service provider (ISP) choice contributes to affordability and quality challenges. Many stakeholders, including the advisory group, noted that many households have few alternatives beyond Comcast/Xfinity, contributing to concerns about both cost and service reliability. Residents also reported dissatisfaction with service quality, with some choosing to switch providers despite higher monthly costs in search of more reliable connectivity.

*“If I could switch providers, I would, but I can't.”*

– Salem Housing Authority resident

### 3.3.c. There is interest in education and guidance for safe tech use

Residents identified a need for support in troubleshooting technology and internet connectivity challenges. Many shared experiences navigating issues related to internet service, including understanding available plans and discounted programs such as Internet Essentials, which some families use to support their children's school-related technology needs. Many rely on informal support networks when they encounter technology challenges. At St. Peter's-San Pedro church engagement, many shared that they typically turn to their children for help with technology.

In addition to interest in digital skills training and support among older adults and those looking for workplace digital skills, there is a growing need for AI education and safe AI use. Parents and caregivers expressed interest in learning how to use AI tools appropriately and safely, particularly as AI becomes more relevant in their kids' lives.

*“It would be helpful if some of the safeguards they use at the school... if the school had a way to communicate how to appropriately use them at home, whether it's a video, whatever – they can send out to the parents on how to properly use them.”*

– Salem Housing Authority resident, on AI literacy for families

Importantly, the **interest in digital skills varies across generations**. Older adults frequently described needing support with learning how to use technology and navigate digital tools. Middle-aged parents described having basic or rudimentary digital skills, particularly if they do not regularly use technology as part of their work. In contrast, youth generally described having grown up with technology and feeling comfortable using specific digital tools and technology like phones in their daily lives, but struggled with other less-used devices like laptops or computers.

### 3.3.d. Digital tools strengthen cultural and social connections for Salem residents

Residents described digital tools as an important way to maintain social and cultural connections across distances and generations. Many participants shared that they use social media, messaging platforms, and other online communities to stay connected with family and friends, including loved ones living in other countries.

“There are apps where my kids learn my language, because I speak Arabic, and Arabic is hard... when they use the app, at least they get familiar with the words, with the connection and the words connect to each other.”

– School parent, Arabic language speaker

### 3.3.e. There is a need for greater resident support in accessing Salem’s municipal digital services

As more government and community services move online, residents and service providers identified a growing need for clearer guidance and support in using municipal digital tools. Residents shared experiences using platforms such as SeeClickFix, the Passport Parking app, MyRec, and the Salem Skipper app, but many also described challenges navigating these systems. One parent noted difficulty using the parking app, while another described confusion when trying to register for piano lessons through MyRec. Municipal partners, including the library, noted that residents often struggle with online program forms, document uploads, and attachments.

## 3.4 Stakeholder Interviews

Between December 2025 and February 2026, the MAPC project team conducted 16 one-on-one landscape analysis conversations with municipal departments, community-based organizations, and regional partners (full list in Appendix J). Five themes emerged consistently:

- **Ask fatigue and lack of reciprocity:** Stakeholder conversations revealed that residents, especially in The Point, have repeatedly been surveyed by multiple overlapping projects without seeing their problems resolved or receiving anything in return.
- **Trusted partners and strong relationships:** Salem's community-based organizations have built durable trust with residents; engaging residents through those relationships works far better than direct outreach.
- **Keep it simple:** Throughout MAPC's resident engagement efforts, plain language, low-tech engagement materials, and informal conversation consistently led to more meaningful insight than more elaborate engagement methods.
- **Heightened fear and hopelessness:** Conversations in late 2025 and early 2026 coincided with intensified federal immigration enforcement activity and federal grant terminations; community-based organizations reported many residents were visibly less willing to be out in public than in prior years.
- **Multiple engagement channels are necessary:** No single method (survey, interview, tabling, door-knocking) reached every priority population; effective engagement layered several methods together.

## 3.5 Needs by Geographic Area

Table 7: Digital equity needs in Salem by neighborhood

| Area                                               | Concentrated needs                                                                                                                                                                            |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Point                                          | Highest density (18,656 people/sq. mi.), Environmental Justice designation, high Limited English Proficiency, elevated smartphone-only reliance, NSCDC mesh network is a major existing asset |
| Loring Towers / Salem Housing Authority properties | No in-unit Wi-Fi in most buildings (the single largest gap identified by SHA staff); MBI retrofit underway at select buildings; large senior and disabled resident population                 |

| Area                                          | Concentrated needs                                                                                                                                                                       |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Downtown / Library area                       | High proportion of households with no-internet and smartphone-only; historically poor public Wi-Fi performance on the Common and Bridge Street                                           |
| South Salem / Highland Avenue / Salem Willows | Elevated shares of no-computer households; older adult population concentration; mobility-limited residents relying on digital alternatives for errands and services                     |
| School buildings / Salem High area            | Concentration of multilingual families; device and home-internet gaps affecting homework completion; Tech Goes Home closure directly affects school-aligned digital literacy programming |

## 3.6 Barriers Summary

Seven primary digital equity barriers emerged throughout the community needs assessment. Each was highlighted in at least two of three sources: the resident survey, the qualitative engagement findings, and the Existing Conditions data. The ranking below reflects how consistently each barrier surfaced across all three sources.

- **Affordability:** The cost of internet access and related services remains a primary barrier to digital equity in Salem.
- **Device access:** Residents face challenges accessing appropriate and reliable devices for everyday digital needs.
- **Digital literacy:** Residents experience gaps in digital skills and access to digital literacy support.
- **Language access:** Language barriers can make it difficult for residents to access and navigate digital services and resources.
- **Digital safety / privacy:** Residents and community organizations identified concerns related to online safety, privacy, and responsible technology use.
- **Awareness & navigation:** Residents may have limited awareness of already existing digital resources and face challenges navigating services and programs.
- **Institutional capacity:** Community organizations and institutions face capacity constraints that can affect their ability to provide digital equity support.



## 4. Community Engagement Process

Community engagement was central to this plan because digital equity cannot be understood through infrastructure and demographic data alone. The **engagement process** combined **four complementary methods**: a standing Community Advisory Group, one-on-one stakeholder interviews, the citywide Digital Equity Planning survey, and ongoing review of Salem's existing planning context.

These methods were **sequenced deliberately rather than run in parallel**. Stakeholder interviews and the review of Salem's existing plans came first and shaped which questions the resident survey asked; the Community Advisory Group then helped interpret what the survey and the Existing Conditions data showed, and direct resident engagement filled gaps that the more structured methods could not address on their own.

### 4.1 Community Advisory Group

The Community Advisory Group (CAG) is a 16-member body of municipal staff, community-based organization leaders, residents, and students (full roster in Acknowledgements) that met four times over the life of the project:

*Table 8: Salem digital equity planning Community Advisory Group (CAG) meeting schedule*

| Meeting                      | Focus                                                                     |
|------------------------------|---------------------------------------------------------------------------|
| Meeting 1 – January 29, 2026 | Getting to know each other; digital equity asset mapping                  |
| Meeting 2 – March 26, 2026   | Co-analyze findings from background research and Existing Conditions data |
| Meeting 3 – May 18, 2026     | Co-analyze findings from community engagement                             |
| Meeting 4 – July 16, 2026    | Prioritize recommendation for implementation                              |



Figure 2: Community Advisory Group (CAG) meeting | Credits: Carlos Javier Montañez

## 4.2 Stakeholder Interviews

---

The project team conducted **16 one-on-one landscape analysis conversations** between December 2025 and February 2026 with municipal departments (Schools, Library, IT, Planning, DEI, Constituent Services, Council on Aging, Housing Authority, Mayor's Office) and community organizations and regional partners (HAWC, ECCF, Lifebridge North Shore, Salem Food Pantry, North Shore CDC). A full list of interviews with dates appears in Appendix H and Appendix J.

## 4.3 Resident Survey

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A citywide digital equity survey launched in 2026 and received **393 responses** (see Section 3.1–3.2). The average survey respondent was whiter, had higher income, and was more highly educated relative to Salem's overall population and this should be taken into context alongside (not in place of) the qualitative engagement and Existing Conditions data.

## 4.4 Direct Resident Engagement

---

Building on landscape analysis themes in Section 3.4 (particularly the need to meet residents where they already gather, rather than asking them to come to additional meetings), the team prioritized engagement with Spanish-speaking residents in The Point, low-income families, older adults, and youth, **and was able to connect with more than 70 residents**, through the following events:

Table 9: Resident engagement schedule and details

| Engagement                                                    | Who                                             | Date         | Format                         | Conversations |
|---------------------------------------------------------------|-------------------------------------------------|--------------|--------------------------------|---------------|
| Salem 400+ anniversary event                                  | General public                                  | January 2026 | Tabling                        | 30            |
| Bilingual storytime, Fresh Express Laundry Center (The Point) | Spanish-speaking residents; low-income families | April 2026   | Pop-up                         | 3             |
| Canvassing, Rainbow Terrace (Salem Housing Authority)         | Public housing residents                        | April 2026   | Intercept interviews           | 4             |
| Multilingual Family Night, Salem High School                  | Public school students and families             | April 2026   | Tabling + intercept interviews | 6             |
| Salem Housing Authority Coffee Hour                           | Older adults; low-income residents              | May 2026     | Focus group                    | 5             |
| St. Peter's—San Pedro Church Coffee Hour                      | Spanish-speaking residents                      | May 2026     | Pop-up                         | 23            |

## 4.5 Engagement Principles

Drawing on the landscape analysis themes (Section 3.4), the team committed to **four operating principles** for the remainder of the planning process:

- Work with trusted community members **rather than attempting direct outreach where existing trusted relationships already exist.**
- Ensure reciprocity **through plain-language materials, clear communication of how feedback will shape the plan, and incentives or compensation for residents and CBOs engaged in deeper conversations.**
- Coordinate engagement efforts **and meet people where they are, leveraging existing community gathering spaces rather than convening new meetings.**
- Ensure full-circle communication **by sharing what the team is hearing back with stakeholders after each phase, and keeping the public-facing plan website current.**



## 5. Recommendations

The recommendations in this plan are based on findings from the existing conditions analysis, community engagement, and interviews with key stakeholders and guided by the expertise of the Community Advisory Group. They are also informed by national best practices and a review of Digital Equity plans adopted by other communities in Massachusetts and across the country. They consider both Digital Equity's place within City government and community-based organizations, and highlight specific programs, resources, and interventions that the City and community-based organizations could implement to better serve Salem residents.

### Categories of recommendations

The recommendations in this document are divided into six categories, focused on programmatic interventions inside and outside of city government, policy and infrastructure recommendations, and organizational changes at the municipal level. The categories include:

- Expanding access to affordable, reliable internet
- Increase access to device support and repair
- Strengthen culturally appropriate and accessible outreach
- Build municipal digital capacity
- Advance digital skills, AI readiness, and trusted tech use
- Improve digital access in municipal facilities and in the public realm

The following section details each category of recommendation with strategies, timelines, and implementing partners. Additionally, each recommendation is complemented with a measure of impact and resource intensiveness relative to other recommendations. Impact is rated on a scale from 1 to 5, where 1 indicates low impact and 5 indicates high impact. Resource Requirement is rated on a scale from 1 to 5, with 1 representing low resource needs and 5 indicating a resource-intensive effort.

For a detailed view of the recommendation strategies with potential funding streams and resources, refer to Salem Recommendations Airtable Interface here: [Recommendations: Recommendations - Airtable](#)

### Expanding access to affordable, reliable internet

Improve access to affordable, reliable, and high-quality internet by strengthening broadband infrastructure, expanding public connectivity, increasing awareness of low-cost service options, and fostering partnerships that improve connectivity and resident choice across Salem.

1. Develop and maintain an inventory of free and low-cost internet service options (refer section 3.3.c.)
  - a. Create a centralized, regularly updated inventory of free, subsidized, and low-cost internet plans and connectivity programs available to Salem residents.
  - b. Include eligibility requirements, pricing, enrollment information, language accessibility, and customer support resources to help residents, digital navigators, libraries, and community organizations connect households to affordable, reliable internet service.

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                          |
|--------------|----------------|---------------------|----------------------|-----------------------------------|
| 2            | 1              | Short-term (1 year) | City- Mayor's Office | Internet Service Providers (ISPs) |

2. Strengthen community broadband access through strategic community partnerships (building on the strengths on community assets, refer section 2.9)

- a. Evaluate internet adoption and resident experiences at existing free internet sites, such as North Shore CDC and Preservation of Affordable Housing (POAH) properties, and identify opportunities to expand successful models
- b. Inventory and map existing broadband infrastructure, public Wi-Fi, and community internet assets to identify service gaps and inform future investments
- c. Conduct targeted outreach through trusted community partners to increase awareness of affordable internet plans, free internet access locations, and enrollment assistance programs.
- d. Prioritize public space Wi-Fi expansion at community organizations that serve high risk population groups, including shelter facilities for unhoused population at Lifebridge.

| Impact (1-5) | Resource (1-5) | Timeframe               | Implementers                                 | Partners                                                                                                                          |
|--------------|----------------|-------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 3            | 3              | Medium-term (2-5 years) | City- Mayor's Office<br>City – IT department | Salem Public Library<br>Salem Council on Aging<br>Local community institutions<br>Salem public schools<br>Salem Housing Authority |

3. Use municipal agreements to improve internet affordability and access (refer section 2.8.a)

- a. Engage Comcast's Community Impact team to discuss affordability challenges and identify opportunities to expand low-cost internet offerings
- b. Leverage the City's Cable Franchise Agreement to negotiate community benefits, such as discounted internet plans and other resident-focused programs. Utilize Salem's Technology Committee and the cable franchise renewal process to incorporate digital equity priorities into future negotiations with ISPs.

| Impact (1-5) | Resource (1-5) | Timeframe              | Implementers         | Partners             |
|--------------|----------------|------------------------|----------------------|----------------------|
| 5            | 3              | Long-term (5-10 years) | City- Mayor's Office | City – IT department |

4. Increase broadband competition by attracting additional ISPs. Section 2.3. notes the lack of ISP competition in Salem

- a. Engage alternative fiber-optic vendors to bring a secondary fiber/coaxial ISP DIA into the City of Salem
- b. Coordinate with future capital projects, such as the new high school, to support broadband infrastructure expansion where feasible

| Impact (1-5) | Resource (1-5) | Timeframe              | Implementers         | Partners             |
|--------------|----------------|------------------------|----------------------|----------------------|
| 5            | 3              | Long-term (5-10 years) | City- Mayor's Office | City – IT department |

5. Leverage municipal infrastructure and policy to support long-term broadband expansion. Section 2.3 highlights existing infrastructure programs and services to build upon.

- a. Evaluate the feasibility of developing an Open Access network model to create shared broadband infrastructure that can support multiple internet service providers and expand resident choice.

- b. Explore opportunities to install conduit as part of municipal infrastructure projects to support future broadband expansion and reduce the cost of network deployment.
- c. Consider adopting "Dig Once" policies that require the installation of additional conduit during roadway construction, utility work, or major capital projects to accommodate future broadband infrastructure.
- d. Identify opportunities to leverage public rights-of-way, municipal assets, and other public infrastructure to support long-term broadband investment and connectivity improvements.

| Impact (1-5) | Resource (1-5) | Timeframe              | Implementers                                 | Partners |
|--------------|----------------|------------------------|----------------------------------------------|----------|
| 5            | 5              | Long-term (5-10 years) | City – IT department<br>City- Mayor's Office |          |

6. Strengthen regional partnerships to advance digital equity and broadband access

- a. Coordinate with neighboring municipalities to advocate for improved broadband affordability, reliability, and service quality.
- b. Engage internet service providers through regional partnerships to address common connectivity challenges and identify collaborative solutions.
- c. Participate in regional coalitions like ECCF coalition

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners |
|--------------|----------------|---------------------|----------------------|----------|
| 3            | 1              | Short-term (1 year) | City- Mayor's Office |          |

## Increase access to device support and repair

Improve access to reliable devices by expanding device donation and refurbishment efforts, strengthening repair and maintenance resources, supporting trusted community-based device access programs, and increasing opportunities for residents to obtain, borrow, and maintain the technology they need.

7. Build a community device donation and refurbishment ecosystem (refer section 2.6)

- a. Organize device donation drives in partnership with local corporations, and organizations such as the Rotary Club to collect gently used laptops, tablets, and other devices
- b. Partner with schools to refurbish and redeploy retired Chromebooks and other devices to residents in need
- c. Explore opportunities to host community device donation drives at summer camps
- d. Work with organizations serving priority populations, such as HAWC, to provide clean, secure, and untampered devices for survivors of domestic violence and other residents with specialized privacy and safety needs

| Impact (1-5) | Resource (1-5) | Timeframe              | Implementers         | Partners                                                                     |
|--------------|----------------|------------------------|----------------------|------------------------------------------------------------------------------|
| 4            | 3              | Medium-term (2-5 year) | City- Mayor's Office | Salem Public Schools<br>Salem Public Library<br>Local community institutions |

8. Build local capacity for community device repair and maintenance network (refer appendix section L.2.)

- a. Train community members to repair and maintain laptops, tablets, and other digital devices through workshops, certifications, or community-based training programs. Explore partnerships with schools, libraries, nonprofits, and local businesses to support community-based device repair initiatives
- b. Partner with middle and high schools to establish after-school device repair programs or integrate device repair into existing STEM, technology, or career and technical education programs

| Impact (1-5) | Resource (1-5) | Timeframe              | Implementers         | Partners                                     |
|--------------|----------------|------------------------|----------------------|----------------------------------------------|
| 4            | 3              | Medium-term (2-5 year) | City- Mayor's Office | Salem Public Schools<br>Salem Public Library |

9. Expand access to shared devices that support safe and secure technology use (refer section 3.3.a)

- a. Utilize managed devices, such as Chromebooks, to provide residents with a secure and reliable platform for accessing online services, education, and other digital resources.
- b. Expand awareness and use of the Salem Public Library's Chromebook lending program, including access to private study rooms for residents completing sensitive or confidential online activities

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                        |
|--------------|----------------|---------------------|----------------------|-------------------------------------------------|
| 3            | 2              | Short-term (1 year) | City- Mayor's Office | Salem Public Library<br>Community organizations |

10. Support and expand North Shore Community Development Coalition's (NSCDC) digital literacy and device access programming. Refer to section 2.9 that illustrates NSCDC's digital equity services and opportunities for further support.

- a. Support NSCDC's current digital literacy and device access courses as a foundational model for community-based programming
- b. Support NSCDC's continued practice of regularly assessing training needs to identify evolving priority topics for instruction

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                    |
|--------------|----------------|---------------------|----------------------|---------------------------------------------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office | North Shore Community Development Coalition |

11. Sustain and expand community hotspot lending program. Section 2.9 outlines the hotspot distribution programs run by the Library and HAWC, demonstrating continued demand for hotspots.

- a. Continue supporting hotspot lending programs at the Salem Public Library and HAWC.
- b. Evaluate opportunities to expand hotspot availability and access as funding and community needs evolve.

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                                               |
|--------------|----------------|---------------------|----------------------|------------------------------------------------------------------------|
| 3            | 2              | Short-term (1 year) | City- Mayor's Office | City – IT department<br>Salem Public Library<br>Community organization |

12. Increase awareness of and access to existing community-based device resources

- a. Increase awareness of devices available for use through the Council on Aging at the Community Life Center
- b. Support access to free mobile phones for residents experiencing homelessness through City programs and partnerships

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                                                  |
|--------------|----------------|---------------------|----------------------|---------------------------------------------------------------------------|
| 3            | 1              | Short-term (1 year) | City- Mayor's Office | Salem Council on Aging<br>Salem Public Library<br>Community organizations |

## Strengthen culturally appropriate and accessible outreach

Connect residents with digital equity resources through culturally appropriate, multilingual, and accessible outreach, trusted community partnerships, coordinated communications, and inclusive engagement strategies. Build awareness of available programs and services by meeting residents where they are and leveraging trusted community networks to reach priority population groups.

13. Strengthen coordinated, multi-channel outreach to increase awareness of digital equity programs and service (refer section 3.4)

- a. Continue amplifying existing community outreach and communication channels to expand the reach of digital equity programming and services. The City already facilitates connecting residents to communication channels hosted by community partners like NSCDC
- b. Conduct outreach through multiple channels, including phone, emails, flyers, Facebook, and other trusted communication methods
- c. Coordinate and streamline City outreach efforts to reduce duplication and make information easier for residents to find

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners |
|--------------|----------------|---------------------|----------------------|----------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office |          |

14. Partner with trusted community leaders and organizations to strengthen outreach and community engagement. Build on the work of community assets noted in sections 1.3.a. and 1.3.b.

- a. Engage resident champions, including parent networks in schools, NSCDC resident ambassadors, and members of the Digital Equity Advisory Group, to support outreach and awareness of Digital Equity programs and services.
- b. Partner with trusted community organizations and institutions, such as faith-based organizations, the Housing Authority, and the Council on Aging, to connect residents with digital equity resources.
- c. Develop and maintain reciprocal and transparent approaches to information sharing by communicating back to community members how their input is being used and what resources are available.

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                                       |
|--------------|----------------|---------------------|----------------------|----------------------------------------------------------------|
| 4            | 3              | Short-term (1 year) | City- Mayor's Office | Community organizations and other local community institutions |

15. Expand use of translation technology to improve language access (refer section 2.8.a)

- a. Increase the use of translation technology to support multilingual online and in-person services.

- b. Leverage free or low-cost digital translation and interpretation tools and services to improve language access.

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners             |
|--------------|----------------|---------------------|----------------------|----------------------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office | City – IT department |

16. Maintain and expand the digital equity asset map as a community resource inventory (refer Appendix G)

- a. Regularly update the digital equity asset map to reflect available programs, services, community partners and technology resources

| Impact (1-5) | Resource (1-5) | Timeframe               | Implementers         | Partners                   |
|--------------|----------------|-------------------------|----------------------|----------------------------|
| 3            | 1              | Medium-term (2-5 years) | City- Mayor's Office | City – Planning Department |

## Build municipal digital capacity

Strengthen the City's capacity to deliver accessible, inclusive, and user-centered digital services by investing in leadership, staff capacity, cross-departmental coordination, and accessible digital practices. Build a strong foundation for long-term digital equity by integrating accessibility, language access, and continuous improvement into municipal operations.

17. Establish a working group to advance digital access priorities

- a. Recruit community experts and local institutions to improve municipal digital services, advance digital equity priorities, and track progress
- b. Identify and prioritize accessibility improvements in collaboration with City departments

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners |
|--------------|----------------|---------------------|----------------------|----------|
| 4            | 3              | Short-term (1 year) | City- Mayor's Office |          |

18. Improve ADA and language access for municipal digital services (refer section 2.8.a)

- a. Conduct user testing of City websites, online information, and digital tools and services.
- b. Develop and use accessibility checklists to guide the design and evaluation of digital services.
- c. Include standard accessibility language in software procurement and vendor contracts.
- d. Partner with local educational institutions like Salem State University or North Shore Community College to develop inclusive accessible digital services, where vendor services are limited

| Impact (1-5) | Resource (1-5) | Timeframe               | Implementers         | Partners |
|--------------|----------------|-------------------------|----------------------|----------|
| 5            | 3              | Medium-term (2-5 years) | City- Mayor's Office |          |

19. Establish a Digital Equity position to coordinate and advance citywide digital equity efforts

- a. Create a dedicated Digital Equity position to lead cross-departmental coordination, strengthen partnerships with community organizations, and support the implementation of digital equity initiatives across the City
- b. Work closely with existing language access and ADA efforts to strengthen participation from harder-to-reach community members and advance inclusive digital services
- c. Support the technical skills and capacity of municipal staff to advance digital services and improve digital access for residents

| Impact (1-5) | Resource (1-5) | Timeframe               | Implementers         | Partners |
|--------------|----------------|-------------------------|----------------------|----------|
| 5            | 4              | Medium-term (2-5 years) | City- Mayor's Office |          |

20. Track emerging technologies that improve digital accessibility

- a. Track emerging technologies that enhance digital accessibility, including solutions that improve accessibility for individuals living with disabilities and expand language access

| Impact (1-5) | Resource (1-5) | Timeframe               | Implementers         | Partners                                                               |
|--------------|----------------|-------------------------|----------------------|------------------------------------------------------------------------|
| 5            | 1              | Medium-term (2-5 years) | City- Mayor's Office | Salem Public Schools<br>Salem Public Library<br>Salem Council on Aging |

21. Continuously track and improve municipal digital services (refer section 2.8.a)

- a. Create an inventory of municipal digital services offered to support internal administration/management and public awareness
- b. Audit each service to evaluate against best practices for usability and accessibility

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners |
|--------------|----------------|---------------------|----------------------|----------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office |          |

22. Actively support residents in accessing and utilizing digital services (refer section 2.8.a)

- a. Provide contact information for how residents can get help when using any digital service
- b. Consult Working Group to build a 'knowledge bank' and develop and/or provide support materials for how to use and access municipal digital services, such as how-to documentation, FAQs, tutorial videos etc.
- c. Consider resident help desks or online chat interfaces to provide live support for residents.

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners |
|--------------|----------------|---------------------|----------------------|----------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office |          |

## Advance digital skills, AI readiness, and trusted tech use

Equip residents with the digital skills, knowledge, and confidence needed to safely and effectively use technology by expanding digital literacy, AI education, cybersecurity awareness, and trusted community-based learning opportunities. Support lifelong learning through partnerships, multilingual educational resources, and accessible training that meets residents where they are.

23. Build a network of trusted digital assistance and navigation services. Section 2.7. notes the critical demand and need for digital navigation support, especially for priority population groups.

- a. **"Train the trainers" model for capacity building:** Provide technical training to staff from community organizations, municipal, and key community anchor institution for in-house tech help. They may include HAWC, NSCDC, Lifebridge, Library, COA, and city staff.
- b. **Hire Digital Navigators in key community locations** to assist priority population groups including older adults, English language learners, low-income residents. Some of the key locations may include COA, housing authority sites, community organization sites.

| Impact (1-5) | Resource (1-5) | Timeframe               | Implementers                                 | Partners                                  |
|--------------|----------------|-------------------------|----------------------------------------------|-------------------------------------------|
| 3            | 2              | Medium-term (2-5 years) | City- Mayor's Office<br>City – IT department | MassHire Northshore Workforce Development |

24. Promote programming and resources to build digital and AI skills. In Section 3.3.c., Salem residents have voiced the need for guidance as well as support for safe and responsible AI use.

- a. Support **job seekers and small businesses** to develop workplace digital skills like resume building, Microsoft excel, online accounting tools, marketing, etc.
- b. Promote and facilitate access to existing training, certification, and workforce development programs for **individuals newly entering the workforce** including youth, college students, new arrivals

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                  |
|--------------|----------------|---------------------|----------------------|-------------------------------------------|
| 4            | 3              | Short-term (1 year) | City- Mayor's Office | MassHire Northshore Workforce Development |

25. Promote existing community resources to promote cybersecurity awareness and safe technology use to support the needs raised in section 3.3.a.

- a. **Embed cybersecurity resources and educational materials into existing training and support** provided in the community, including NSCDC digital literacy classes for older adults, workforce development classes, and YouthBuild classes as well as internet safety efforts by HAWC
- b. Explore other formats including **workshops, self-paced learning tools, videos, resource guides**, and other educational formats that build confidence using technology and navigating online spaces.

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                                                                               |
|--------------|----------------|---------------------|----------------------|--------------------------------------------------------------------------------------------------------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office | Salem Public Schools<br>Salem Public Library<br>Salem Council on Aging<br>Local community institutions |

26. Leverage community partnerships to expand access to digital literacy and AI education

- a. **Partner with the Salem public schools** to develop AI education curriculum for students and parents
- b. **Partner with Salem Public Library** to expand use of LearningExpress at the library, that offers on demand online tutorials for digital literacy, computer basics, and AI basics
- c. **Partner with trusted community assets and resident champions to develop and disseminate educational resources.** Engage local organizations and resident experts to co-create accessible, culturally relevant materials and expand awareness through trusted networks such as community groups, faith-based organizations, and accessibility advocates
- d. Partner with **local educational institution** like **Salem State University** to develop digital literacy curriculum

| Impact (1-5) | Resource (1-5) | Timeframe           | Implementers         | Partners                                                                                               |
|--------------|----------------|---------------------|----------------------|--------------------------------------------------------------------------------------------------------|
| 4            | 2              | Short-term (1 year) | City- Mayor's Office | Salem Public Schools<br>Salem Public Library<br>Salem Council on Aging<br>Local community institutions |

27. Strengthen foundational educational and workforce digital skills for residents. In section 3.3.c., many residents across generations expressed interest in developing workplace digital skills.

- a. Equip youth, individuals entering the workforce, and those seeking to build or refresh their digital skills with **foundational digital skills needed for education, employment, and everyday technology use**. Integrate keyboarding, typing, and computer navigation into educational and out-of-school learning opportunities.

| Impact (1-5) | Resource (1-5) | Timeframe                 | Implementers         | Partners                                                |
|--------------|----------------|---------------------------|----------------------|---------------------------------------------------------|
| 3            | 3              | Medium-term (2 – 5 years) | City- Mayor's Office | Salem Public Schools<br>Salem State University<br>NSCDC |

28. Ensure educational materials on digital skills, online safety, and trusted technology use are available in multiple languages

- a. Develop educational materials on topics including **internet safety, cybersecurity, consumer protection, parental content controls, digital literacy, AI literacy, device use, and accessing educational, employment, and government resources** online.
- b. **Prioritize translating non-web content**, including PDFs, videos, handouts, and other educational materials, into Salem's priority languages. While website content can often be translated through browser-based tools, ensuring multilingual access to offline and downloadable resources can help reach a broader range of residents.

| Impact (1-5) | Resource (1-5) | Timeframe                 | Implementers         | Partners                                                                                                                               |
|--------------|----------------|---------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 3            | 1              | Medium-term (2 – 5 years) | City- Mayor's Office | Salem Public Schools<br>Salem State University<br>Salem Council on Aging<br>NSCDC<br>Salem State University<br>Community organizations |

## Improve digital access in municipal facilities and in the public realm

29. Expand public Wi-Fi access in high impact community locations that serve priority populations by leveraging existing municipal infrastructure (Refer Appendix J.2)

- a. Explore opportunities to **provide public Wi-Fi in community gathering spaces** such as MBTA train stations, parks, historic landmarks, and community gardens with targeted investment in Low-Moderate-Income neighborhoods including Point neighborhood and Salem downtown.
- b. **Evaluate the feasibility of extending municipal guest networks** to support outdoor public Wi-Fi in and around municipal buildings through additional external access points

- c. Assess different use cases for public Wi-Fi (e.g., recreation, tourism, education, community events, and emergency response) to inform planning and investment
- d. Explore partnerships with internet service providers (ISPs) and other entities to expand and sustain public Wi-Fi infrastructure in the above locations

| Impact (1-5) | Resource (1-5) | Timeframe                 | Implementers                       | Partners                                              |
|--------------|----------------|---------------------------|------------------------------------|-------------------------------------------------------|
| 5            | 4              | Medium-term (2 – 5 years) | City- IT department, Parks and Rec | City – Planning department<br>Community organizations |

30. Ensure the availability of inclusive and accessible tech equipment at municipal facilities where needed

- a. Purchase and provide accessible tech equipment at municipal locations where residents may need such devices in order to interact with staff or access information or services.

| Impact (1-5) | Resource (1-5) | Timeframe                 | Implementers         | Partners                                                                                            |
|--------------|----------------|---------------------------|----------------------|-----------------------------------------------------------------------------------------------------|
| 3            | 3              | Medium-term (2 – 5 years) | City- Mayor's Office | Salem Public Schools<br>Salem State University<br>Salem Council on Aging<br>Community organizations |

31. Consider improvements to the public realm to support digital access

- a. Install **Digital Kiosks in feasible & on-demand locations** like downtown to provide information to residents and visitors
- b. Provide **charging stations or simple outlet access in public places** where residents and visitors may most need to charge devices.

| Impact (1-5) | Resource (1-5) | Timeframe                 | Implementers         | Partners             |
|--------------|----------------|---------------------------|----------------------|----------------------|
| 3            | 3              | Medium-term (2 – 5 years) | City- Mayor's Office | City – IT department |



# Appendix A: Sources Cited

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Sources directly cited with specific figures or quotations in the main report body.

## Federal and state government data

U.S. Census Bureau. (2023). *American Community Survey 5-Year Estimates (2019–2023)*. Tables: Disability Characteristics (S1810/B18101); Selected Social Characteristics (DP02); Selected Economic Characteristics (DP03); Selected Housing Characteristics (DP04); Demographic and Housing Estimates (DP05); Internet Subscriptions (S2801/B28002); Types of Computers (B28001); Computer/Internet by Educational Attainment (B28006); Journey to Work; Vehicles Available.

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# Appendix B: Sources Consulted

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Expanded list of materials reviewed but not necessarily directly cited with a specific figure in the report body.

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# Appendix C: Planning Context Memo

## MEMORANDUM

|      |                                                                                          |
|------|------------------------------------------------------------------------------------------|
| DATE | June 2026 (revising the January 9, 2026 internal draft)                                  |
| RE   | Revised Existing Conditions & Planning Context Summary for the Salem Digital Equity Plan |

## Purpose

This memorandum synthesizes planning context and demographic baseline and precedes the existing conditions analysis and community engagement. It served to align the internal MAPC team ahead of the January 29, 2026, Community Advisory Group kickoff. For the purposes of the final report, it incorporates the April 2026 MBI Existing Conditions findings, the completed landscape analysis and qualitative engagement, survey results, and corrects assumptions about federal funding that are no longer valid. It is intended to serve as supporting information for the final Salem DEP plan report.

## Brief Summary

Salem's digital access challenges stem overwhelmingly from **affordability**, not infrastructure availability, with particularly acute needs among seniors, residents with disabilities, Environmental Justice communities, and households displaced from digital literacy programming by the February 2026 closure of Tech Goes Home. Five critical takeaways:

- Aging population meets disability crisis. **Salem's population aged 75+ is projected to grow 57% by 2050; 51.2% of that cohort reports a disability. Connectivity enables aging in place, telehealth, and civic participation without physical travel; fixed incomes make affordability the binding constraint.**
- The Affordable Connectivity Program (ACP) funding challenge is already underway, not a future risk. **An estimated 2,439 Salem households lost roughly \$878,040/year<sup>1</sup> in federal broadband subsidy when the Affordable Connectivity Program wound down in 2024, with no federal replacement as of this writing.**
- Affordability matters far more than availability. **99% of Salem has broadband infrastructure access, but 65% of locations are served by Comcast alone. That monopoly sustains higher prices for the 43.6% of households already housing cost-burdened.**
- The Point requires immediate prioritization. **At 18,656 people per square mile, with high Limited English Proficiency and Environmental Justice designation, The Point concentrates multiple vulnerabilities simultaneously.**
- Tech Goes Home's closure (February/April 2026) removed Salem's primary structured digital literacy provider **at five sites with no clear successor identified as of this draft.**

<sup>1</sup> An estimated 2,439 Salem households [USAC ACP Enrollment by Zip, January 2024, zip 01970, Total Subscribers field; URL: [usac.org](https://usac.org)] lost roughly \$878,040/year [calculated: 2,439 × \$30/mo × 12; source for rate: FCC/IJA; in federal broadband subsidy when the Affordable Connectivity Program wound down in May–June 2024 [FCC Public Notice, May 31, 2024], with no federal replacement as of this writing [NDIA, Benton Foundation, BudgetSeniors/Congress.gov].

## Scope of Review

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This analysis examined approximately 28 primary municipal planning documents and datasets (including the 2023–2030 Open Space & Recreation Plan, the Housing Roadmap (2022), and Census ACS Disability & Age Profiles) plus the completed MBI Existing Conditions analysis (April 2026), 15–16 stakeholder landscape-analysis interviews, direct resident engagement at six events, and a 393-response resident survey. This existing conditions memo reflects a larger evidence base than was available at the time of the January 2026 draft, which preceded most direct community engagement.

## Demographic and Planning Context

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Salem is a diverse coastal city of 44,241 residents (ACS 2019–2023 5-Year Estimates), characterized in the Housing Roadmap (2022) as a **“Millennial Peak” community even as its senior population is now the fastest-growing cohort**. The population is 68.5% White alone, 19.8% **Hispanic or Latino** (a share that has **nearly doubled since 2010**), and 4.1% Black or African American.

**11.56%** of the civilian non-institutionalized population reports a **disability** (5,161 residents) per US Census ACS 2021–24. **Among residents aged 75+, the disability rate rises sharply to 51.2%.**

**Commute patterns have shifted markedly:** work-from-home rose from near-zero to 19.4% of workers, while transit use fell from roughly 12% to 6.25%. This makes residential broadband essential economic infrastructure for nearly one-fifth of Salem's workforce, while the remaining transit-dependent workers (concentrated in Environmental Justice neighborhoods including The Point) depend on reliable mobile data for real-time transit information.

## Broadband Infrastructure and Competition

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Physical broadband infrastructure covers 99% of Salem. Competition, however, is minimal: 100% of Broadband Serviceable Locations (BSLs) are served by Comcast alone (cable), per 2021 FCC Form 477 data. Stakeholder interviews and advisory group discussions reference T-mobile connections, and the FCC data confirms 9% of BSLs are covered by T-mobile fixed wireless; see **Appendix I**.

Salem has a municipal fiber network and dark fiber assets and recently received a \$243,746 Municipal Fiber Grant to expand existing infrastructure. MBI's infrastructure dashboard demonstrates a total investment of \$2,513,464.9 investments through Gap Networks and the Residential Retrofit program. Residential Retrofit covers 36 total properties in Salem with 1,472 households.

## Affordability: The Central Barrier

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Affordability, not availability, is this plan's central and most consistently documented barrier. **9.6%** of Salem households (1,951) report **no internet subscription** of any kind, rising to **40.5%** among low-income households **earning under \$20,000 per year**. The expiration of the federal Affordable Connectivity Program removed a \$30/month subsidy from an estimated 2,439 enrolled Salem households – a combined loss of roughly \$878,040 per year, with no federal replacement in place.

Comcast Internet Essentials remains available to income-eligible households at roughly \$15–\$30/month, but stakeholders and survey respondents alike report that **enrollment friction** (eligibility paperwork, prior account history, and language access) is as significant a barrier as price itself. Resident engagement also raised concerns of lack of awareness among residents about Internet Essentials and similar other low-cost internet programs.

## The Point: Concentrated Vulnerability

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The Point combines extreme **residential density** (18,656 people per square mile), **Environmental Justice** designation, and **elevated Limited English Proficiency rates** with lower vehicle ownership, **higher transit dependency**, and high percentage of smartphone dependence. North Shore CDC's resident-owned mesh Wi-Fi network – described by a Community Advisory Group member as Massachusetts' first “Digital Equity Neighborhood” – is both evidence of acute need and proof that community-led models can work at meaningful scale.

## Tech Goes Home Closure

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**Tech Goes Home** wound down operations in February 2026 (announced January 27, 2026), after the January 9, 2026 draft of this memo was written [TGH CEO LinkedIn, Jan. 27, 2026; Tech Goes Home Chattanooga website, accessed June 2026]. North Shore CDC was a confirmed TGH partner site and received a separate \$25,000 ECCF Digital Equity grant in March 2026 to continue training independently [ECCF press release, March 10, 2026]. This change likely impacted programming at the following partners: Salem Public Schools, Caritas Communities, Boston Senior Home Care, and South Sudanese Enrichment for Families.

## Community Engagement Findings from 2026 Outreach

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This section incorporates findings from 15–16 stakeholder interviews, six resident engagement events (Section 4 of the main report), and a 393-response resident survey, summarized here for planning-context purposes (full detail in Sections 3–4 and Appendices K–M):

- Trust in community-based organizations, not technology itself, **is the primary determinant of whether outreach succeeds.**
- Spanish-language support for municipal services has improved but **Portuguese, Haitian Creole, and Arabic remain significant, named gaps.**
- Domestic violence survivors have digital safety needs that are distinct **from, and at times in tension with, general connectivity expansion goals.**
- AI literacy emerged as an unanticipated but recurring resident concern, **particularly among parents seeking guidance on safe use at home and older adults.**
- Engagement occurred during a period of heightened fear tied to federal immigration enforcement activity, **which CBO partners report likely suppressed participation among some residents this plan most needs to reach.**

## Federal Funding Context & Policy Landscape Update

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In 2025, the **federal Digital Equity Act (DEA) funding landscape for digital equity programming has shifted.** This **plan's implementation strategy** (Section 5, Group 7) has been adapted in response, **centering Massachusetts Broadband Institute (MBI) programs and locally coordinated philanthropic and municipal resources as the primary funding pathway.** Current federal program status as of June 2026 of this plan drafting remains a fast-moving policy area.

*Sources cited and consulted for this memo are consolidated into Appendix A and Appendix B of the full Salem Digital Equity Plan to avoid duplication.*

# Appendix D: Digital Equity Framework

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Digital equity is the condition in which all individuals have the information technology capacity needed for full participation in society. This plan, consistent with national digital equity practice, organizes that condition into three interlocking pillars:

1. Broadband connection – **whether high-speed home internet service is both available and affordable.**
2. Device access – **whether residents have an adequate internet-enabled device beyond a smartphone (laptop, desktop, or tablet) for their household's needs.**
3. Digital literacy – **whether residents have the skills to use connectivity and devices effectively, safely, and confidently.**

A household can be digitally excluded through a gap in any one pillar even if the other two are fully met – a household with broadband and a laptop but no digital literacy support is still digitally excluded for practical purposes, and vice versa. Recommendations in Section 5 are organized to address all three pillars rather than treating broadband expansion alone as sufficient.

This plan also treats digital equity as a **cross-cutting social determinant**, intersecting directly with housing stability (online rental assistance applications), mobility (transit apps, remote work capability), public health (telehealth), economic development (workforce and small business digital skills), and civic life (access to municipal services and emergency alerts).

# Appendix E: Network Technology Primer

A brief, non-Salem-specific glossary of the broadband technologies referenced throughout this plan, for readers less familiar with telecommunications terminology.

| Technology             | How it works                                                                                                                        | Typical characteristics                                                                                                                                                                                                                            |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cable broadband        | Delivers internet service over the same coaxial cable infrastructure historically used for cable television.                        | Widely available where cable TV infrastructure already exists; shared neighborhood bandwidth can slow speeds at peak usage times; this is Salem's dominant technology (Comcast).                                                                   |
| Fiber-optic broadband  | Delivers internet service as pulses of light over dedicated glass fiber cables.                                                     | Generally the fastest and most symmetrical (similar upload and download speed) technology available; expensive and slow to build where it doesn't already exist; currently limited in Salem outside select MBI-funded retrofit buildings.          |
| Fixed wireless         | Delivers internet service from a nearby tower or antenna to a fixed receiver at the home or building, without a physical cable.     | Faster to deploy than cable or fiber; performance can be affected by distance, obstructions, and weather; T-Mobile Home Internet is Salem's primary example.                                                                                       |
| Mobile/cellular data   | Delivers internet service to phones and some routers over the cellular network (4G/5G).                                             | Useful as a primary connection for smartphone-only households, but generally less reliable for data-heavy uses like videoconferencing, schoolwork, or multiple simultaneous users.                                                                 |
| Satellite broadband    | Delivers internet service via signal to/from an orbiting satellite.                                                                 | Available nearly anywhere, including areas with no other infrastructure; historically higher latency and cost, though newer low-orbit systems have improved performance; not a major factor in Salem given existing wired/fixed-wireless coverage. |
| Municipal / dark fiber | Publicly owned fiber-optic infrastructure, which may be "lit" (actively carrying data) or "dark" (installed but not yet activated). | Salem has a municipal fiber network and recently received a \$243,746 Municipal Fiber Grant to expand this infrastructure                                                                                                                          |

## Appendix F: How Is Speed Measured?

---

Internet speed is typically reported in two directions, each measured in megabits per second (Mbps):

Download speed – **how quickly data moves from the internet to your device (loading a webpage, streaming video, downloading a file).**

Upload speed – **how quickly data moves from your device to the internet (sending an email attachment, joining a video call, backing up photos).**

The Federal Communications Commission's current benchmark for “broadband” is **100 Mbps download / 20 Mbps upload (100/20)**. This plan uses that threshold when describing whether a connection meets a modern broadband standard.

Speed is commonly measured using crowdsourced speed-test platforms (such as Ookla or Measurement Lab/M-Lab), which have residents or automated probes run a test from their own connection. These tests are useful for showing real-world, in-home performance but can be affected by the test-taker's own device, Wi-Fi router placement, and network congestion at the moment of the test – they measure a moment in time, not a guaranteed, sustained speed.

Per the MBI Existing Conditions analysis (April 2026), Salem's median measured download speed is **166 Mbps** and median upload speed is **81 Mbps**, with 83.6% of download tests and 90.1% of upload tests meeting or exceeding the FCC's 100/20 benchmark. These figures describe households that already have a connection to test – they say nothing about the 9.6% of households with no internet subscription at all (Section 2.4).

# Appendix G: Digital Equity Asset Ecosystem

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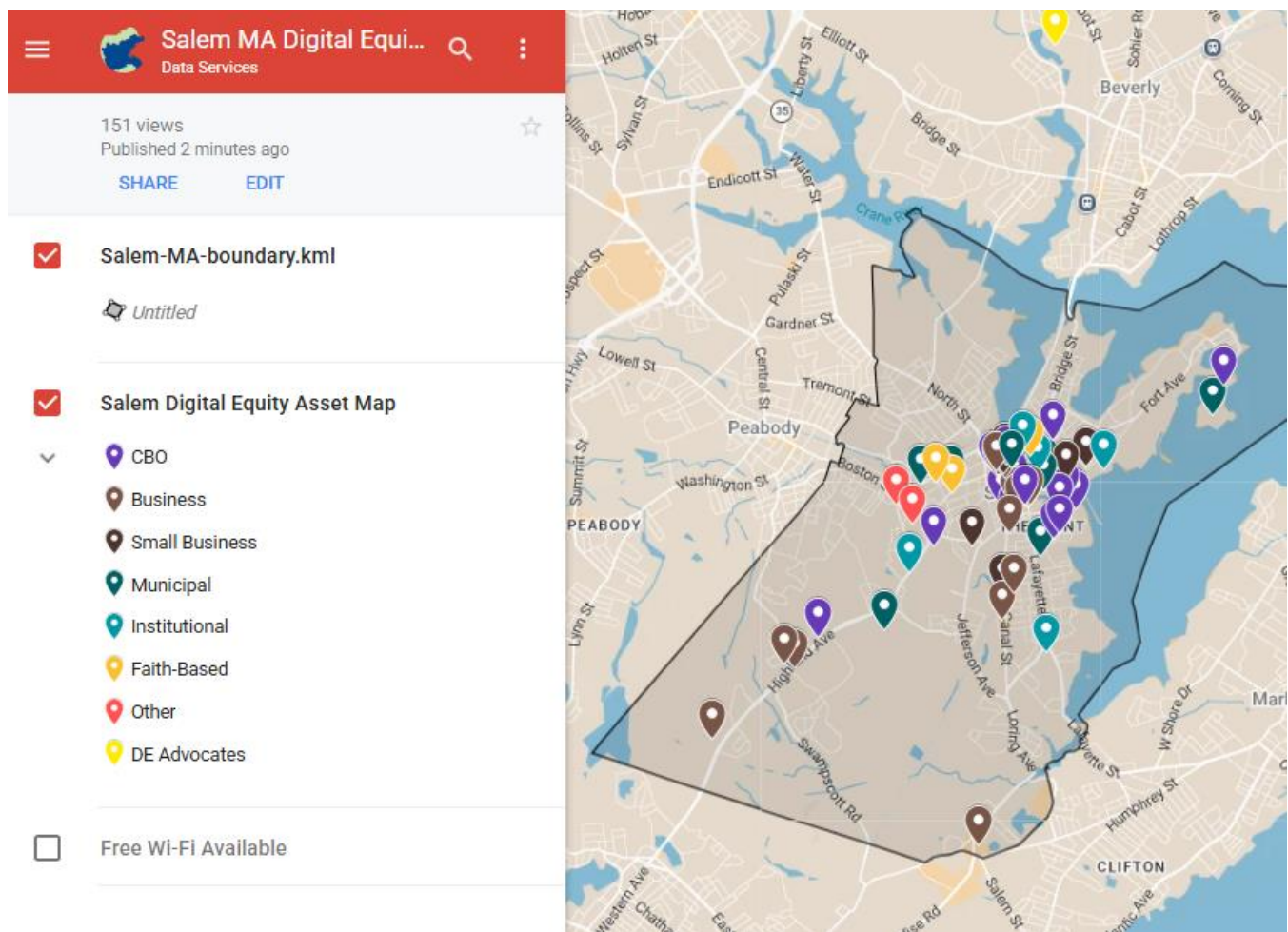
Full inventory summary from the MBI Existing Conditions asset mapping exercise (April 2026). Over 100 assets were catalogued across the categories below; see Appendix I for the complete original asset mapping deliverable.



## Salem's digital equity ecosystem partners

Salem has an impressive number of organizations dedicated to supporting residents and marginalized people. During landscape analysis conversations we heard that Salem is a leader in this way in the region. At the same time, many people indicated desire for more collaboration amongst organizations and opportunities to connect and share information. The planning process developed an inventory of community assets that can be found here:

<https://airtable.com/appONfT6ORXSFNoWd/shrnlqyqlSuDea4aG>



Link to asset map:

[https://www.google.com/maps/d/u/2/edit?mid=1dITto9\\_D4bO8mkbKzFYZMd5Jrzjx5dg&usp=sharing](https://www.google.com/maps/d/u/2/edit?mid=1dITto9_D4bO8mkbKzFYZMd5Jrzjx5dg&usp=sharing)

**How to Use the Digital Equity Asset Map:** The online asset map allows you to scroll and zoom to explore digital equity-related locations around Salem. You can click on the asset type in the key to highlight the markers on the map. You can also toggle on and off a layer to display locations with free Wi-Fi.

Key digital equity partners include City digital services and digital equity initiatives, community-based organizations operating digital inclusion initiatives, pillar institutions, and organizations serving covered populations

#### City Digital Services & Digital Equity Initiatives

- City of Salem Mayor's Office
- City of Salem Digital Services
- Salem Public Schools Technology Program
- Salem Public Library
- Salem Council on Aging
- Salem Access Television
- Salem Housing Authority

**CBOs Operating Digital Inclusion Initiatives**

- North Shore CDC
- Disability Resource Center
- HAWC
- AgeSpan
- Essex County Community Foundation
- Pillar Institutions
- Salem State University
- Salem Hospital
- Peabody Essex Museum
- Organizations Serving Covered Populations
- Lifebridge North Shore
- St. Peters-San Pedro Episcopal Church
- Salem Pantry

## Appendix H: Community Engagement Detailed Table

Combined record of stakeholder landscape-analysis interviews and direct resident engagement events. See Appendix J and Appendix L for full original narrative detail.

### Stakeholder / landscape analysis interviews (Dec. 2025–Feb. 2026)

| Name                                       | Role / Organization                                                                               | Date           |
|--------------------------------------------|---------------------------------------------------------------------------------------------------|----------------|
| Tara Mansfield                             | Director, Salem Public Library                                                                    | Dec. 15, 2025  |
| Kate Machet                                | VP Systems Initiatives & Government Relations, ECCF                                               | Dec. 18, 2025  |
| Jeron Reddick                              | Director of Community-Based Case Management, Lifebridge North Shore                               | Jan. 7, 2026   |
| Robyn Burns                                | Executive Director, Salem Food Pantry                                                             | Jan. 9, 2026   |
| Marc LeBlanc, Kristin Condon, Laura Assade | Salem Public Schools (Instructional Tech / Digital Learning / DEI)                                | Jan. 14, 2026  |
| Sara Stanely                               | Executive Director, HAWC                                                                          | Jan. 23, 2026  |
| Kerry Murphy; Teresa Arnold                | Salem for All Ages; Director, Council on Aging                                                    | Jan. 30, 2026  |
| Shantel Alix; Ashley Ganam                 | North Shore CDC (Community Building; Development)                                                 | Feb. 17, 2026  |
| Patrick Libby                              | City of Salem IT and Innovation; Network Manager                                                  | March 5, 2026  |
| Tom Daniel; Rachel Vresilovic              | City of Salem Planning & Community Development                                                    | March 9, 2026  |
| Kathlyn Valianti; Alex Dominguez           | Resident Service Coordinators, Salem Housing Authority                                            | March 16, 2026 |
| Lisa Peterson; Sabrina Trask, Julio Mota   | Mayor's Office, Chief of Staff<br>Office Director<br>Constituent Services Director, City of Salem | April 15, 2026 |
| Regina Zaragoza Frey                       | Director of DEI, City of Salem                                                                    | March 26, 2026 |

## Direct resident engagement events

| Engagement                                        | Who                                                                                      | Date      | Format               | # Conversations |
|---------------------------------------------------|------------------------------------------------------------------------------------------|-----------|----------------------|-----------------|
| Salem 400+ anniversary event                      | General public                                                                           | Jan. 2026 | Tabling              | 30              |
| Bilingual storytime, Fresh Express Laundry Center | Spanish-speaking; low-income families                                                    | Apr. 2026 | Pop-up               | 3               |
| Canvassing, Rainbow Terrace (SHA)                 | Public housing residents                                                                 | Apr. 2026 | Intercept interviews | 4               |
| Multilingual Family Night, Salem High School      | Public school families<br>Spanish-speaking, Arabic-speaking, and Haitian Creole-speaking | Apr. 2026 | Tabling + intercept  | 6               |
| Salem Housing Authority Coffee Hour               | Older adults; low-income residents                                                       | May 2026  | Focus group          | 5               |
| St. Peter's—San Pedro Church Coffee Hour          | Spanish-speaking residents                                                               | May 2026  | Pop-up               | 23              |

# Appendix I: Existing Conditions Summary

## I.1 Summary

---

The Massachusetts Broadband Institute (MBI) Existing Conditions deliverable (April 2026) is the single richest data source in this plan and underlies most of Section 2. It combined 16 one-on-one landscape analysis conversations, ACS/FCC/Ookla data analysis, an asset inventory of 100+ digital equity assets, review of prior Salem plans, and two completed Community Advisory Group meetings. Its **headline findings** (affordability as the dominant barrier, concentrated geographic need in The Point and surrounding neighborhoods, and a dense but fragile community asset ecosystem) **are carried throughout Sections 1–3 of this report**. The full original content is reproduced below for reference and traceability.

## I.2 Original: MBI Existing Conditions Findings (April 2026)

---

### *Summary of tasks*

1. Completed 16 one-on-one landscape analysis conversations **with municipal staff and other individuals representing key Salem community assets and relevant organizations.**
2. Reviewed and analyzed Salem digital equity data **about internet service access, internet service provider choice, speed tests, access to devices, access to smartphone only, and demographic data.**
3. Developed an asset inventory and map **for Salem's digital equity community assets.**
4. Reviewed other plans from Salem **including the Housing Roadmap, Open Space & Recreation Plan, Equity Audit, and Imagine Salem.**
5. Completed 2 community advisory group meetings.

### *16 Landscape Analysis conversations*

Salem Public Schools · Salem Public Library · Salem for All Ages · Council on Aging · Housing Stability coordinator at Mayor's office · City of Salem IT department · City of Salem Planning department · City of Salem DEI department · City of Salem Constituent Services · Salem Housing Authority · Healing Abuse Working for Change (HAWC) · Lifebridge North Shore · North Shore Community Development Coalition (NSCDC) · Essex County Community Foundation (ECCF) · Salem Food Pantry · St-Peters–San Pedro Episcopal church.

### *Existing Conditions Data Sources*

#### **American Community Survey, U.S. Census Data:**

No internet access: B28002 – **Presence and Types of Internet Subscriptions in Household**

No computing devices: B28001 – **Types of Computers in Household**

Smartphone only: B28001 – **Types of Computers in Household**

Race & ethnicity distribution of internet and computer access: B28009A–I

Over 65 years: B01001 – **Population by Age and Gender**

Individuals living with disabilities: B18101 – **Sex by Age by Disability Status**

Educational attainment: B28006 – **Educational Attainment by Presence of a Computer and Types of Internet Subscription in Household**

**FCC 477 data** (fixed broadband, other choices) · **Measurement-Lab speed tests** · **Internet services in Broadband Serviceable Locations (BSLs) by technology type.**

### ***What we know from conversations: Community organizations***

Community organizations are a critical support network for those most likely to experience the digital divide.

Community organizations are essential providers **of digital support for vulnerable and marginalized groups.**

HAWC provides clean, untampered devices and hotspots **for domestic abuse survivors.**

Lifefridge provides internet access **in their day centers and support navigating online tools.**

NSCDC provides digital literacy support **for workforce development and small businesses.**

Community organizations hold trusted, long-standing relationships **with community members – trust that is needed to advance digital equity.**

The work of community organizations increasingly includes engaging in digital access and skills, **such as helping residents find opportunities or complete forms online.**

Community-led digital skill building and outreach empowers **residents' digital capacity.**

*“They not only send me emails – they've booked flights and use the patient gateway. They have access to the patient gateway, I teach them all the little details that they always want to learn.”*

**– NSCDC staff**

### ***What we know from conversations: Municipal departments***

Municipal departments provide a breadth of digital services and staff support.

Salem's Planning department engages residents **through virtual and hybrid public meetings and supports sign-up for online meetings.**

Salem's IT department supports other city staff **with hardware/software support and cybersecurity training.**

Municipal buildings have publicly accessible guest Wi-Fi, **and many also have public workstation computers.**

Salem Housing Authority supports tenants **with connecting to internet without Wi-Fi, accessing online services via cellphone, setting up email, and using computers, with support from Resident Services staff.**

The City has made progress supporting Spanish-speaking residents, but **significant language access gaps remain for Haitian Creole, Portuguese, Arabic, and other priority languages.**

*“We are doing better in addressing needs in Spanish, which is the largest language other than English... But we're really struggling to meet language needs other than Spanish, and that includes Portuguese and Haitian Creole and other top languages in the city.”*

**– City staff**

Language barriers make it harder **for residents to access devices, tech support, and digital services, especially since translation options are inconsistent.**

The Mayor's Office is working to provide live interpretation **at City Hall meetings for both in-person and Zoom participants.**

Salem School District has ongoing support **for students, families, and teachers through online tools and portals; the school's IT plan provides future goals for improving digital access.**

Salem Public Library provides personalized on-demand tech support **to residents on request.**

Many departments provide online forms, **payments, and permit applications of varying ease of use.**

Constituent Services encourages sign-up for online alerts **but has experienced challenges with platforms such as CodeRED.**

### ***Spotlight: Salem municipal digital services***

As more services move online, residents increasingly rely on digital tools, **but not all residents can easily use or navigate these platforms.**

Staff and Constituent Services teams play a critical role **managing digital systems and supporting residents.**

Targeted support is needed for marginalized communities **to sign up for and use CodeRED, SeeClickFix, and neighborhood Facebook groups; staff use tabling, print materials, on-site assistance, and QR codes.**

Police, Fire, and DPW/Engineering all send digital alerts; **many residents are already enrolled.**

The City is interested in a public-facing inventory **of its digital services and an internal vendor-contract inventory, for performance accountability and machine-readable data portability.**

*“Missing alerts can be a hardship... You have to pay a ticket, you have to pay hundreds of dollars, maybe more if you really let your car sit in the tow yard for a week. You could pay \$1,000. It could be very expensive.”*

**– City staff**

### ***Salem's ecosystem and gaps***

Salem has a strong ecosystem of partners committed to serving the community, but gaps exist for digital equity support. Some challenges exist in a splintering ecosystem – for example, the closure of Tech Goes Home left gaps in digital literacy classes at the following locations:

**North Shore Community Development Coalition**

**Salem Public Schools**

**Caritas Communities**

**Boston Senior Home Care**

**South Sudanese Enrichment for Families**

### ***Digital equity intersects with other community priorities***

Language access – **essential to achieving full digital access.**

Economic development – **workforce development (resumes, online job applications, career support via NSCDC) and small business support (Google Sites, digital appointment management, Canva marketing tools).**

Culture – **digital and cultural divide intersect.**

Transportation – **transit apps such as Salem Skipper and MBTA Go.**

Climate resilience – **digital alert systems and awareness during extreme weather events.**

Food access – **digital tools to market food pantry programs.**

### Lack of access (Data: ACS, S2801)

| Indicator                              | Count  | % of Income-Band Households Lacking Internet |
|----------------------------------------|--------|----------------------------------------------|
| Households with no internet            | 1,951  | 9.6%                                         |
| No internet & income below \$20,000    | 989    | 40.5%                                        |
| No internet & income \$20,000–\$74,999 | 775    | 11.7%                                        |
| No internet & income \$75,000+         | 187    | 1.7%                                         |
| Households with no computer devices    | 1,402  | 6.9%                                         |
| Households with smartphones only       | 1,505  | 7.4%                                         |
| Total households                       | 20,267 | —                                            |

### Lack of access vs. comparable communities (ACS)

Compared to nearby communities (Beverly, Peabody, Lynn, and Danvers), a high percentage of households in Salem lack computers, don't have internet, or rely only on smartphones.

| Municipality | No computing devices | No broadband internet | Smartphone only |
|--------------|----------------------|-----------------------|-----------------|
| <b>Salem</b> | <b>6.9%</b>          | <b>9.6%</b>           | <b>7.4%</b>     |
| Beverly      | 5.8%                 | 7.5%                  | 6.4%            |
| Peabody      | 6.3%                 | 8.6%                  | 6.3%            |
| Lynn         | 6.2%                 | 8.5%                  | 13.6%           |
| Danvers      | 4.8%                 | 5.9%                  | 5.2%            |

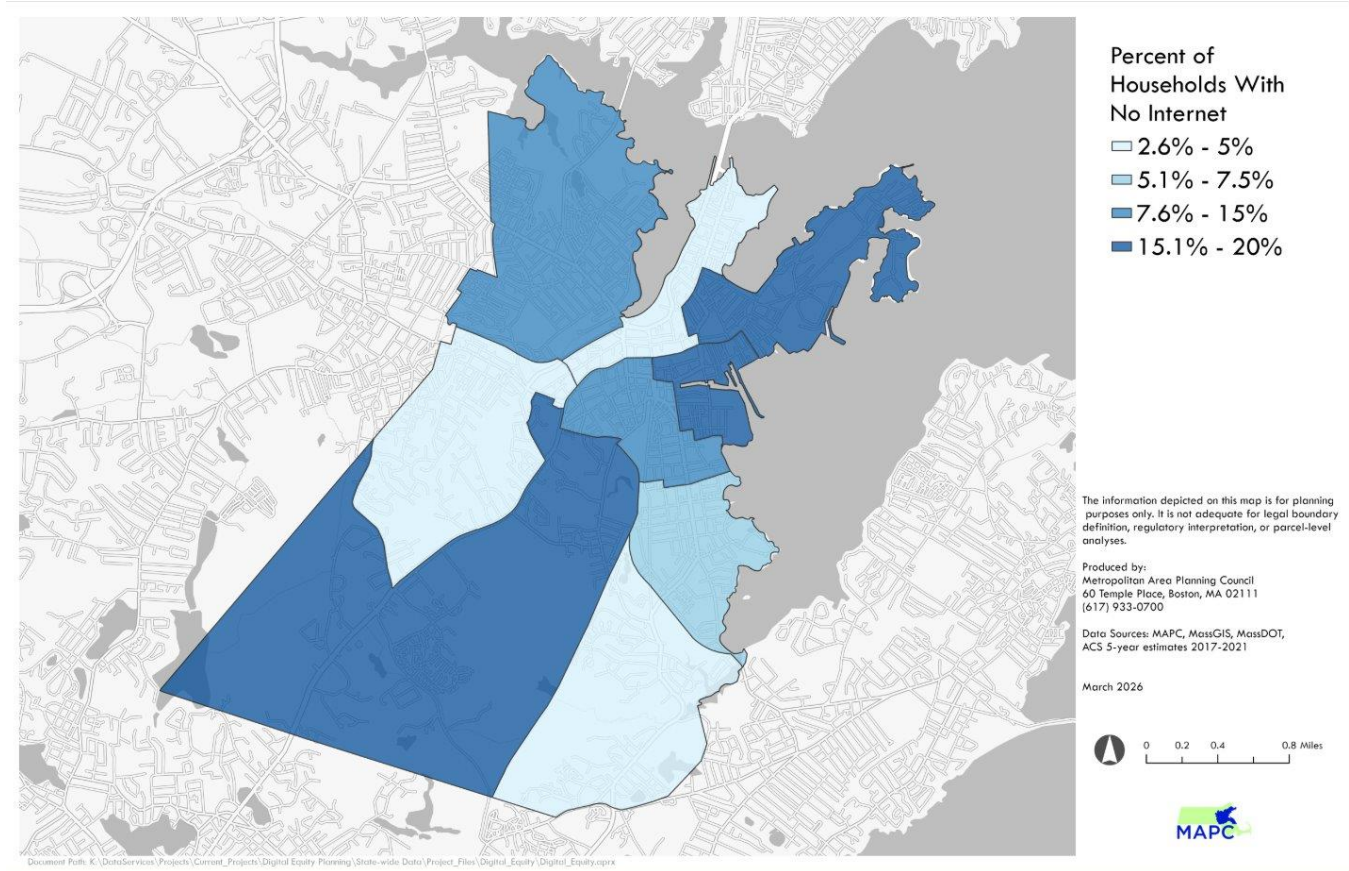
### Demographic distribution of lack of access

Analysis of demographic patterns shows disparities in access to computers and internet subscriptions by race and ethnicity, with Hispanic and Latino residents experiencing disproportionately higher rates of limited access.

| Group                                    | No computer  | Has computer, no internet subscription | Has computer + broadband | Total  |
|------------------------------------------|--------------|----------------------------------------|--------------------------|--------|
| White alone (not Hispanic/Latino)        | 1,138 (3.9%) | 648 (2.2%)                             | 26,853 (93.7%)           | 28,639 |
| Black or African American                | 41 (2%)      | 14 (0.68%)                             | 1,979 (97.3%)            | 2,034  |
| Asian                                    | 26 (1.8%)    | 0                                      | 1,422 (98.2%)            | 1,448  |
| Hispanic or Latino                       | 564 (6.2%)   | 501 (5.5%)                             | 8,035 (88.3%)            | 9,100  |
| American Indian & Alaska Native          | 11 (22.9%)   | 25 (52%)                               | 12 (25%)                 | 48     |
| Native Hawaiian & other Pacific Islander | 0            | 0                                      | 36                       | 36     |

| Group             | No computer | Has computer, no internet subscription | Has computer + broadband | Total |
|-------------------|-------------|----------------------------------------|--------------------------|-------|
| Two or more races | 9 (0.2%)    | 277 (6.32%)                            | 4,092 (93.5%)            | 4,378 |

### *No internet access – where and who*



Map 1: Percentage of households with no at-home internet access

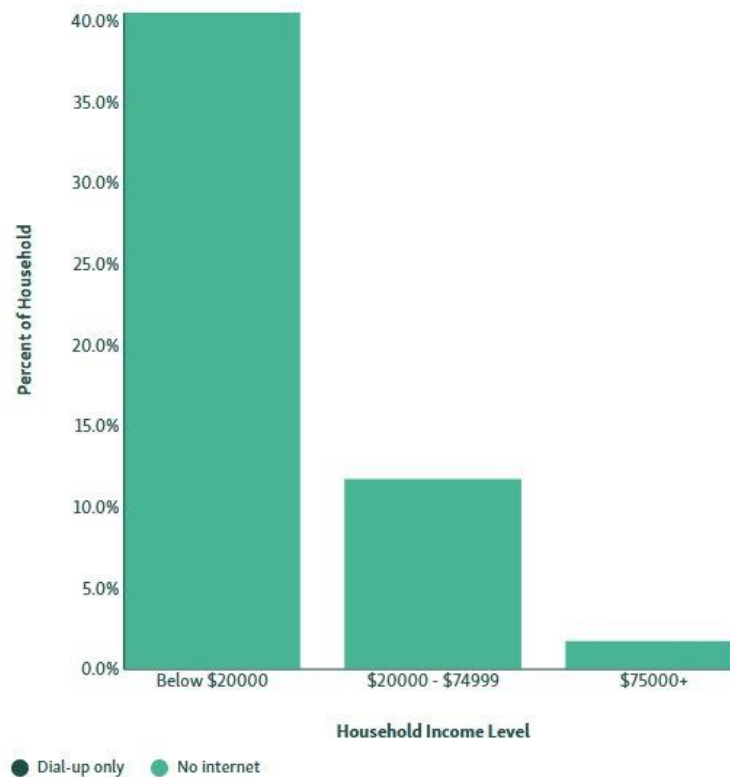
Clear geographic disparities exist in internet access across Salem, with the highest shares of households without internet in Downtown, The Point, Salem Willows, and Highland Avenue, followed by South Salem.

6.3% of residents aged 65+ have a computer but no internet subscription (482 of 7,615).

5.5% of Hispanic or Latino residents have a computer but no internet subscription (482 of 9,100).

About 12% of residents with a high school education or less have a computer but no internet subscription (328 of 2,638).

Households with the lowest incomes, especially those earning under \$20,000, are much more likely to lack internet access than higher-earning households (ACS, 2020–2024).



Source: American Community Survey (ACS) Years: 2020-2024  
 Link to: [Computers and Internet Subscriptions \(Municipal\)](#)

Figure: Household income distribution with no internet access

## Cost burden

|                          | # of households | % of households |
|--------------------------|-----------------|-----------------|
| Cost-burdened households | 8,597           | 43.6%           |
| Paying 30–50% of income  | 4,152           | 21%             |
| Paying 50%+ of income    | 4,445           | 22.5%           |

High housing cost burden limits households' ability to afford other essential expenses, including internet service and devices, suggesting that affordability – not just availability – is a key barrier to internet adoption and sustained connectivity.

## Internet affordability

The Affordable Connectivity Program (ACP) was a federal subsidy available to households at or below 200% of the Federal Poverty Line, providing a \$30/month subsidy toward a qualifying internet plan. The program began in December 2021 and wound down in April 2024. Per the Benton Institute's ACP Enrollment Performance Tool, **8,964 Salem households were eligible**, of which **2,439 enrolled**. These households lost access to the subsidy, representing a loss of **\$73,170/month**, or **\$878,040/year**, exclusively for low-income Salem households.

## Internet quality

Among Salem residents with internet service, most receive speeds above the recommended thresholds of 100 Mbps download / 20 Mbps upload. Median download speed: **166 Mbps**. Median upload speed: **81 Mbps**. **83.6%** of download tests and **90.1%** of upload tests met or exceeded the threshold. Compared to similar municipalities, Salem's speeds are higher than Lynn, Danvers, and Peabody, and slightly lower than Beverly.

*Choice of internet service*

Nearly all Broadband Serviceable Locations in Salem are served by at least one wired (cable or fiber) ISP. Comcast cable is the dominant offering, with a negligible share of BSLs having fiber access (BSLs lacking wired service are primarily on Bakers Island). T-Mobile offers fixed wireless service to about 9% of BSLs, providing a secondary option for some households. Salem is mostly served by only one internet provider (Comcast Cable), meaning residents have little to no choice in service.

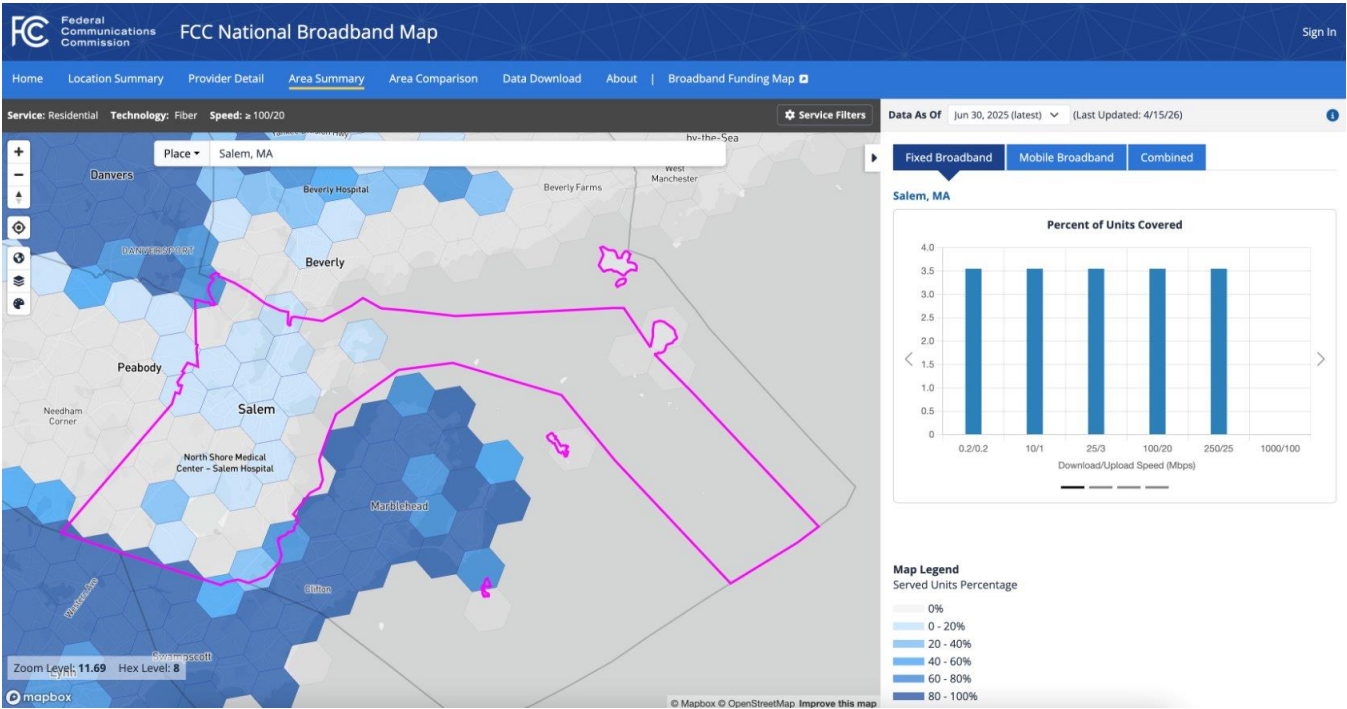


Image: Choice of internet service for fiber technology

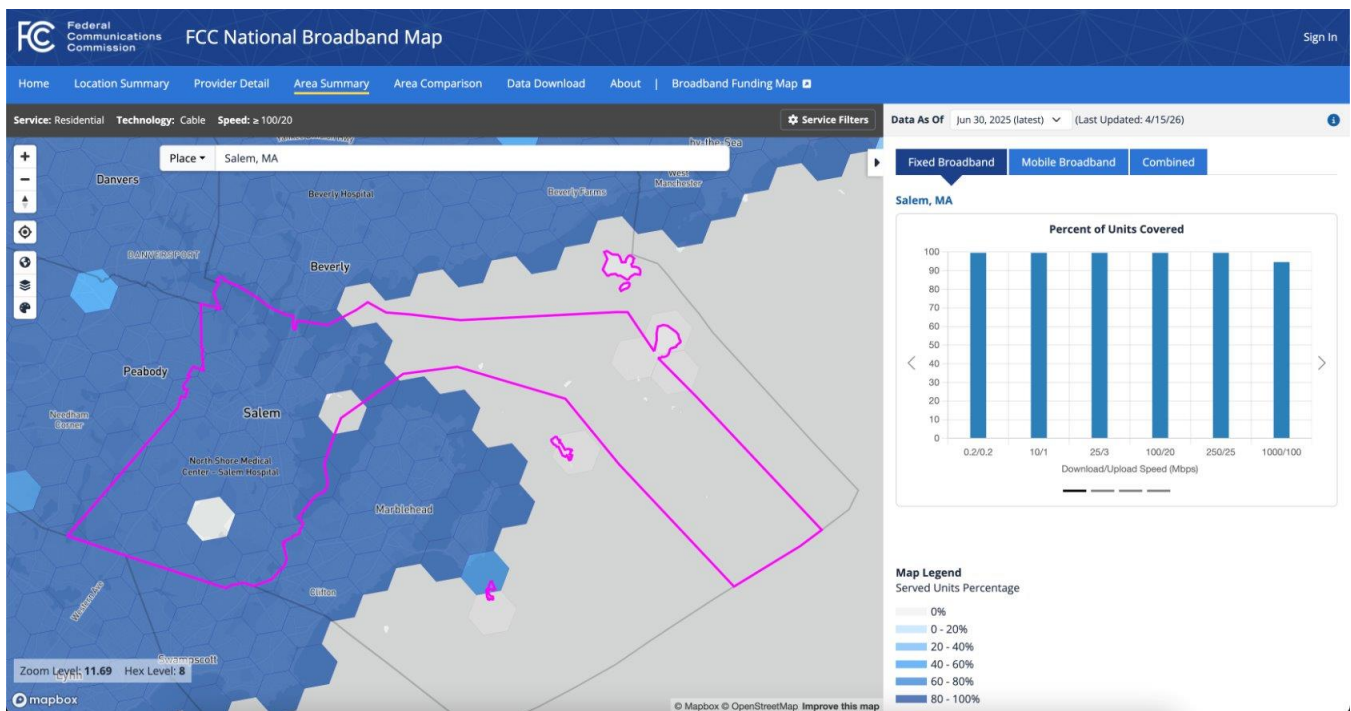


Image: Choice of internet service for cable technology

### ISP Choice by Technology Type

Salem is mostly served by only one internet provider (Comcast Cable), meaning residents have little to no choice in service.

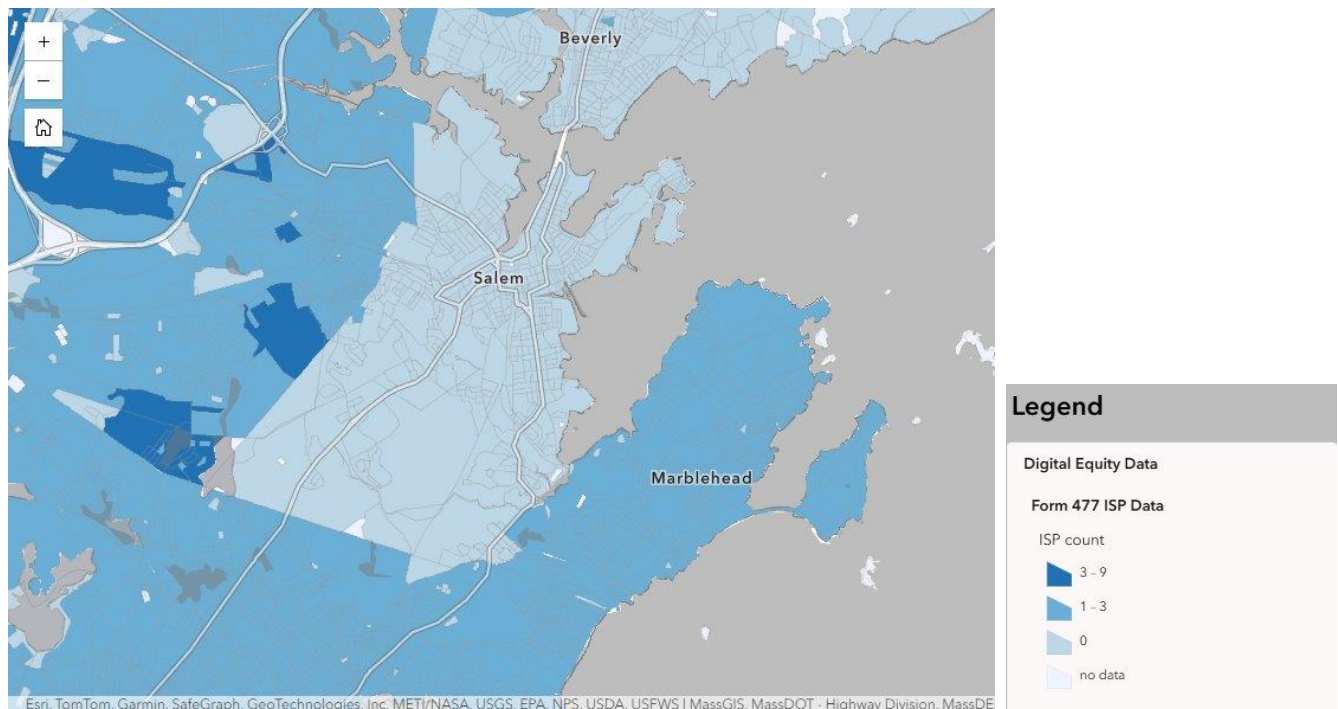


Image: Choice of internet service provider (cable)

| Provider                                      | Technology     | Covered BSLs | % coverage | Max speed      |
|-----------------------------------------------|----------------|--------------|------------|----------------|
| Comcast Cable Communications, LLC             | Cable          | 11,514       | 100%       | 1200/35 Mbps   |
| RCN, dba Astound Broadband                    | Cable          | 572          | 5%         | 1000/20 Mbps   |
| T-Mobile                                      | Fixed wireless | 1,036        | 9%         | 100/20 Mbps    |
| Comcast Cable Communications, LLC             | Fiber          | 1            | —          | 6000/6000 Mbps |
| RCN, dba Astound Broadband                    | Fiber          | 1            | —          | 1000/1000 Mbps |
| Westfield Gas & Electric, dba Whip City Fiber | Fiber          | 2            | —          | 1000/1000 Mbps |

## No computer

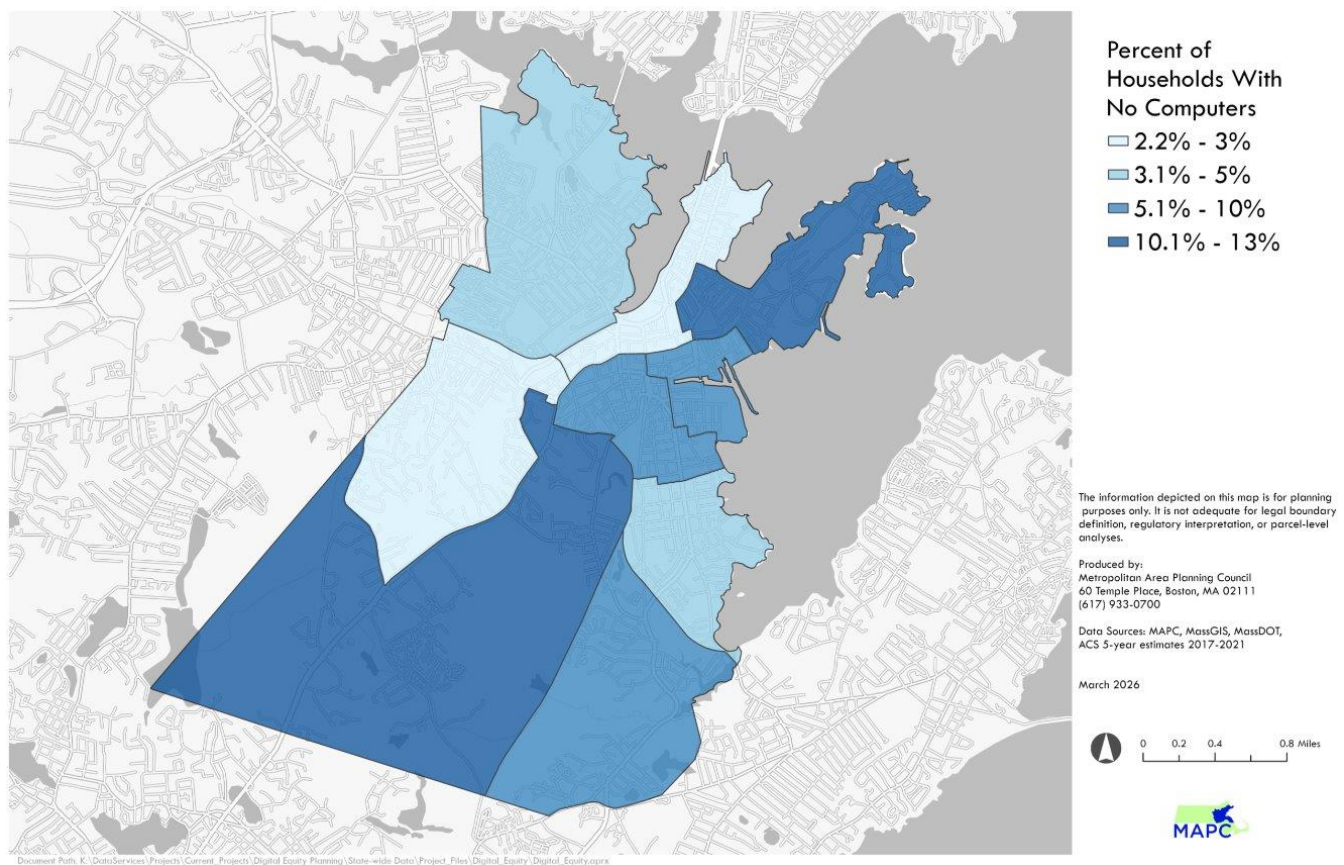


Image: Geographic distribution of percentage households with no computers

About 14% of residents aged 65+ lack access to a computer (1,098 of 7,615).

6.2% of Hispanic or Latino residents lack access to a computer (564 of 9,100).

About 27% of residents with less than a high school education lack access to a computer (722 of 2,638).

The highest proportion of households without a computer are in the Willows and Highland Avenue neighborhoods.

## Smartphone only

Areas where more households rely on smartphones for internet tend to also be the places where more households lack reliable internet and device access – notably Downtown, the McIntire District, and The Point.

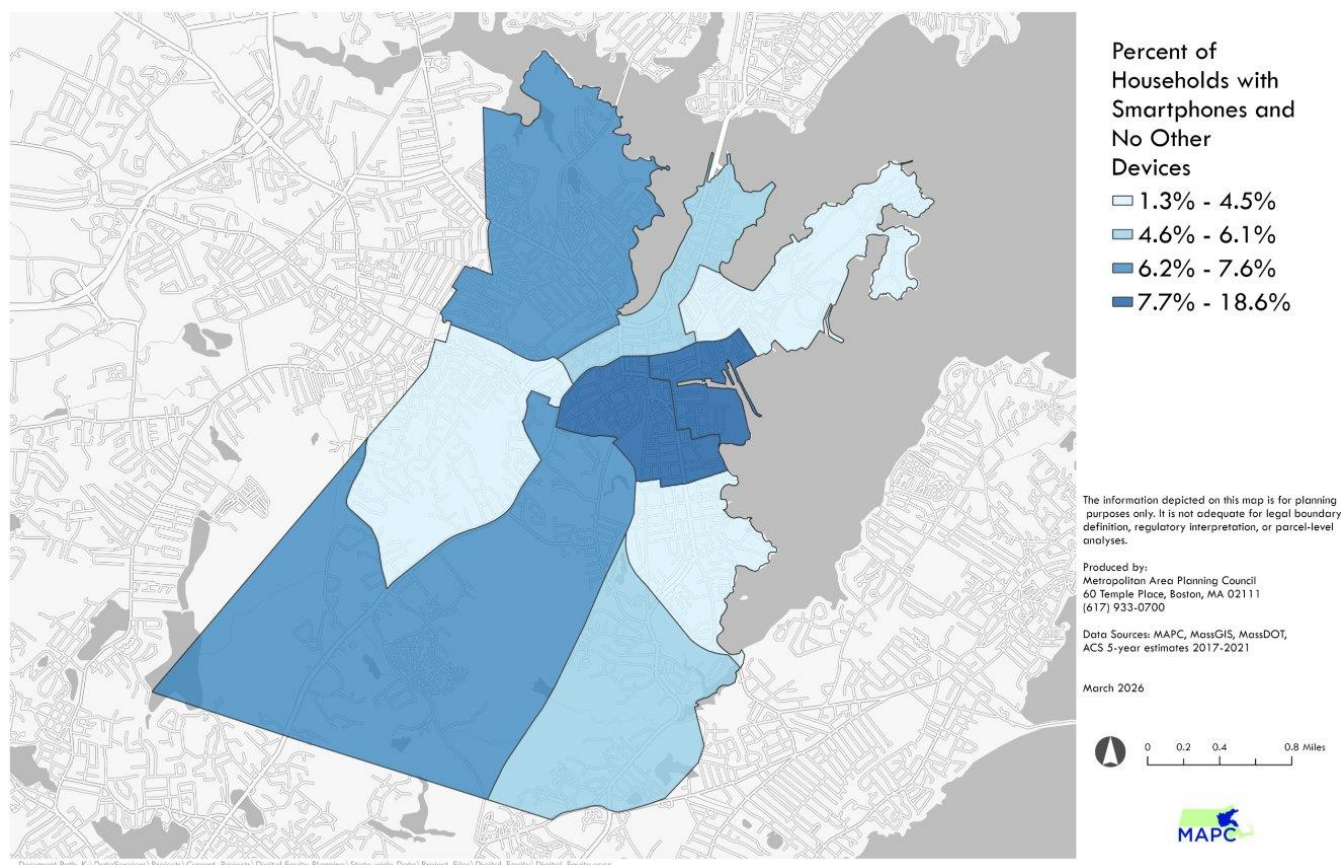


Image: Geographic distribution of percent households with smartphones only

## Race & ethnicity distribution

Residents of color are more concentrated in The Point, Downtown, Gallows Hill, and Witchcraft Heights. There is a strong overlap between these areas and higher rates of limited digital access, underscoring a disproportionate burden on these communities.

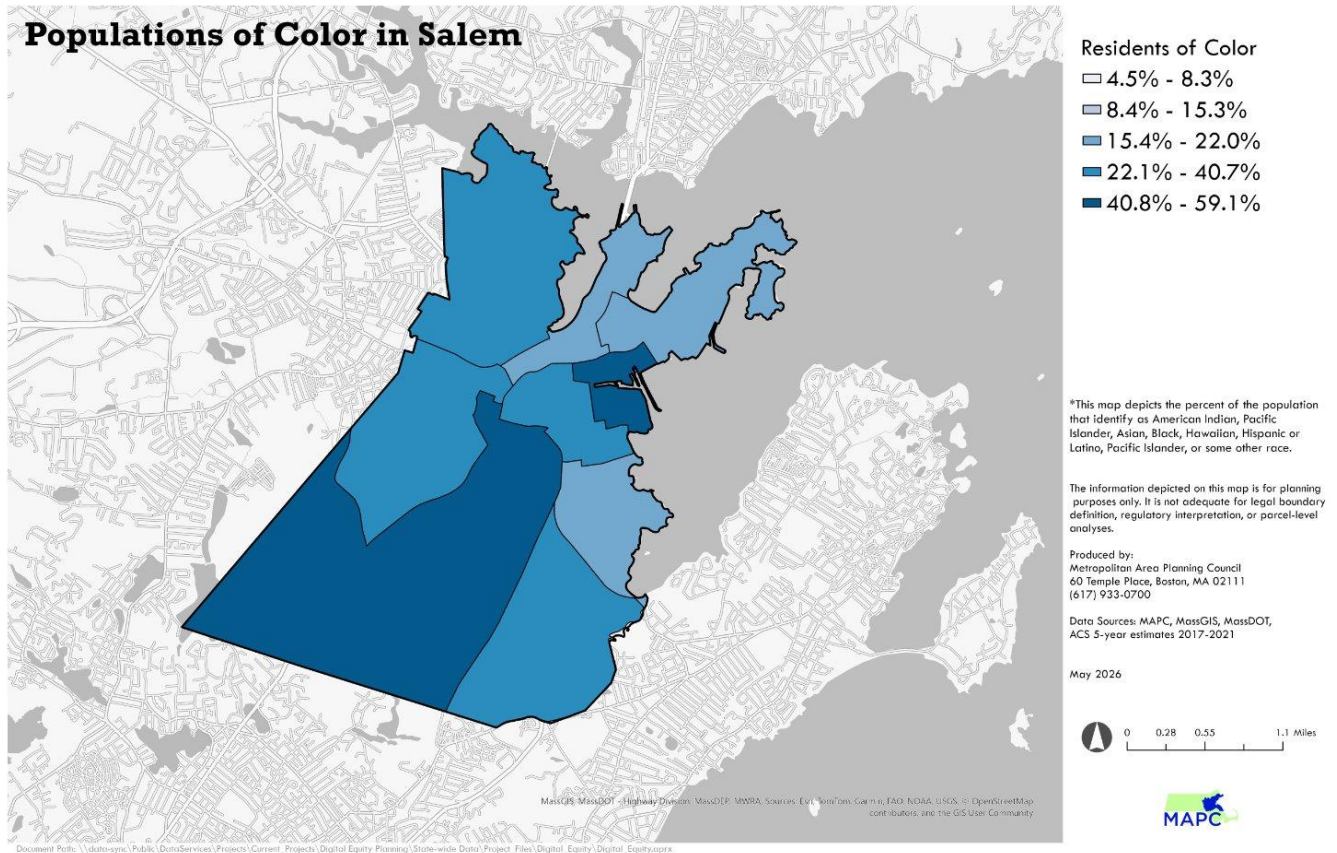


Image: Geographic distribution of percentage residents of color

### *Residents over 65 years*

Neighborhoods with more older adults – especially Highland Avenue, South Salem, Vinnin Square, and North Salem – also tend to overlap with areas facing more limited digital access, including higher rates of households without computers and those relying only on smartphones.

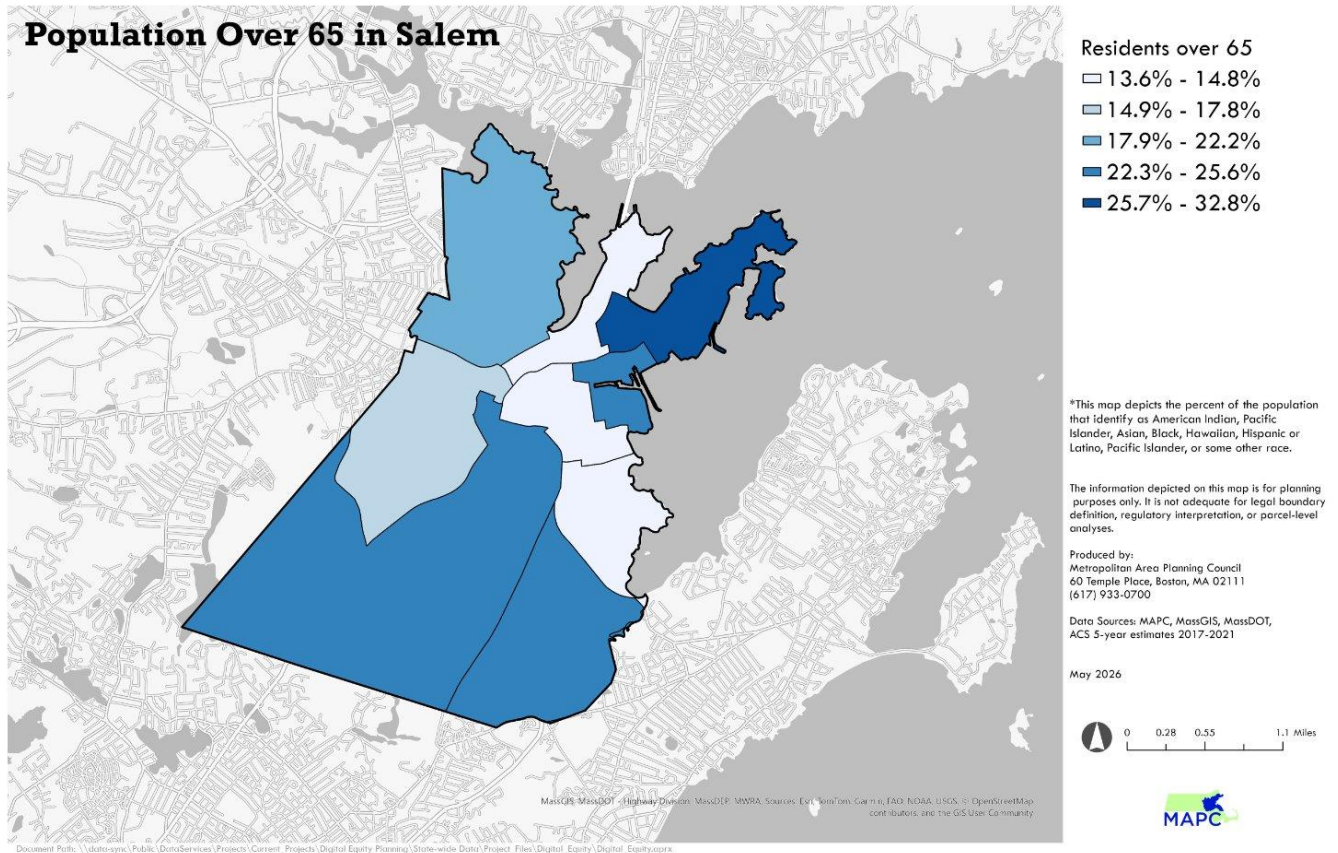


Image: Geographic distribution of percentage residents over 65 years

## Individuals living with disability

In Salem, accessibility needs are diverse and affect a significant share of residents. This highlights the importance of ensuring both physical and digital services are fully accessible and inclusive across disability types

|                                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Population with disability            | 5,161 | 11.56%     |
| Population with hearing disability    | 1,231 | 2.76%      |
| Population with vision disability     | 659   | 1.48%      |
| Population with cognitive disability  | 1,993 | 4.65%      |
| Population with ambulatory disability | 2,268 | 5.29%      |

## Educational attainment (Table B28006)

|                            | Less than HS  | HS graduate    | Bachelor's or higher |
|----------------------------|---------------|----------------|----------------------|
| Total                      | 2,638         | 14,477         | 15,773               |
| No computer                | 722 (27.4%)   | 753 (5.2%)     | 283 (1.78%)          |
| Has computer               | 1,916 (72.6%) | 13,724 (94.8%) | 15,490 (98.2%)       |
| – no internet subscription | 328           | 484            | 207                  |
| – broadband + internet     | 1,588         | 13,240         | 15,283               |

Individuals with less than a high school education are disproportionately more likely to lack access to a computer, and also experience higher rates of having a computer but no internet subscription, highlighting affordability and connectivity barriers beyond device access alone.

## Environmental Justice (EJ) Communities

Neighborhoods identified as EJ communities, such as The Point and parts of Downtown, also show higher rates of limited digital access, indicating overlapping and reinforcing inequities, and pointing to priority areas for targeted, place-based investment.

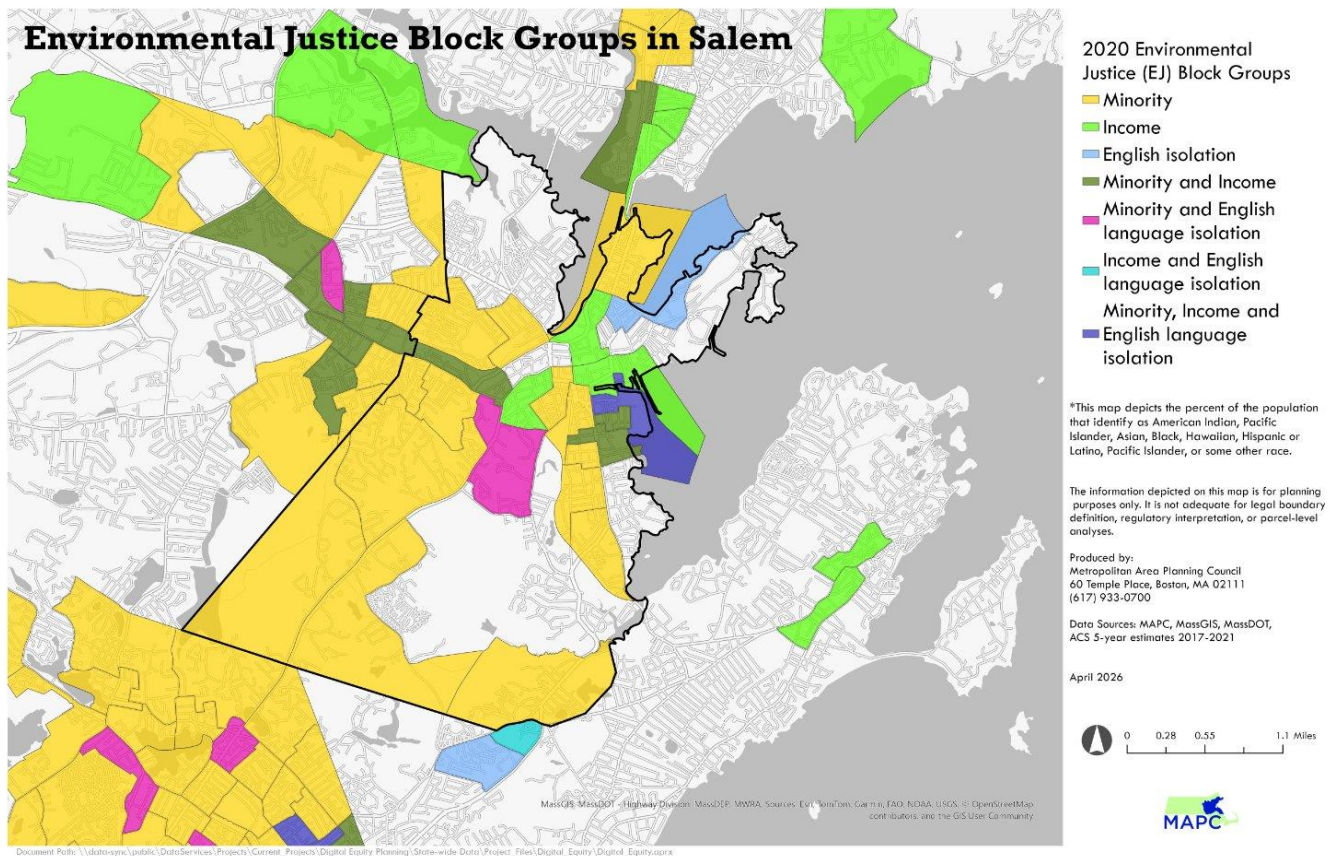


Image: Environmental Justice (EJ) communities in Salem

### ***Asset mapping – the stats***

Over 100 total assets: 18 municipal assets, 27 community organizations, 23 businesses (11 small businesses), 9 local institutions, 3 digital equity advocates, 3 faith-based organizations. Of these: 37 provide Wi-Fi access, 10 provide device access, 12 sell devices, 14 provide digital training or support, 3 offer grants.

### ***Asset mapping – the map and inventory***

Assets are categorized as CBO, Business, Municipal, Small Business, Institutional, Other, Faith-Based, Digital Equity Advocates, and Social Media, and plotted on an interactive map (110 assets in the underlying Airtable). Sample inventory entries include Lifebridge North Shore, HAWC, the Salem Pantry, Salem for All Ages, Salem Public Schools, North Shore CDC, the Latino Leadership Coalition & Hispanic Heritage Month Committee, the North Shore Latino Business Association, and Latinos for Education (Salem Parent Leadership Cohort).

## Asset mapping – Salem's DE pillars

Essex County Community Foundation · Salem Public Library · Massachusetts Councils on Aging · AgeSpan · Salem Public Schools · MassHire Metro North Career Center · HAWC · Digital JEDI Consortium · North Shore CDC · City of Salem · Lifebridge North Shore · Salem Housing Authority.

## Asset mapping – quotes

*“Salem is crushing it, they are the best, the most ahead of it.”*

*“The neighborhood you're sitting in is Massachusetts' first Digital Equity Neighborhood with free Wi-Fi inside and out via the North Shore CDC, and I think that is leading the entire Commonwealth in digital equity.”*

*“...when we were able to get her a laptop, the Chromebook where she could work on her job apps and everything once her kiddo went to bed, suddenly that time was productive. She didn't have that mental spiral at night...”*

*“Without Wi-Fi they'd have no other line of communication to people.”*

*“I'm always looking for ways to connect... [it's] not an option to not collaborate.”*

## What we know from other municipal plans

Aging population meets disability crisis: **Salem's population aged 75+ will grow 57% by 2050; among this cohort, 51.2% report disabilities.**

Remote work revolution created new infrastructure needs: **Residential broadband is now essential economic infrastructure for one-fifth of Salem workers; remaining transit-dependent workers in EJ neighborhoods require reliable mobile data.**

Affordability matters more than availability: **ISP monopoly drives costs higher for the 38–43.6% of households already housing cost-burdened.**

The Point requires immediate prioritization: **concentrates lower vehicle ownership, higher transit dependency, language barriers to ISP navigation, and cost-burdened households facing internet-versus-housing tradeoffs.**

Cross-sector integration is essential: **digital equity connects housing stability, mobility, public health, and aging services.**

## Community Advisory Group

Goal: draw from Salem community members' lived and/or professional experience to shape the Digital Equity Plan with the City of Salem and MAPC.

| Meeting             | Focus                                                                |
|---------------------|----------------------------------------------------------------------|
| Meeting 1 – January | Getting to know each other and asset mapping                         |
| Meeting 2 – March   | Co-analyze findings from background research and Digital Equity data |
| Meeting 3 – May     | Co-analyze findings from community engagement                        |
| Meeting 4 – July    | Prioritize recommendation ideas                                      |

Full Community Advisory Group roster appears in the Acknowledgements section of this report.

## Next steps: resident engagement (as of this deck's drafting)

| Engagement                                                   | Who we are talking to                           | Status                     |
|--------------------------------------------------------------|-------------------------------------------------|----------------------------|
| Library book reading at laundromat in the Point neighborhood | Spanish-speaking residents; low-income families | Completed                  |
| Pop up at multi-lingual family night                         | Salem public school students and families       | Completed                  |
| Housing Authority sites                                      | Older adults; low-income residents              | One completed; one pending |
| Pop up at St Peters church                                   | Spanish-speaking residents                      | Completed                  |

## Stay up to date

Plan website: <https://salemma.gov/1284/Digital-Equity-Plan>

# Appendix J: Landscape Analysis Summary

## J.1 Summary

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The Landscape Analysis (February 2026) documents the project team's 1:1 conversations with municipal departments, community-based organizations, and regional partners, conducted to identify priority groups, effective engagement methods, and local community context ahead of direct resident outreach. **Its central finding** (that trust in existing community-based organizations, not technology itself, determines whether digital equity outreach succeeds) **directly shaped the engagement principles in Section 4.5 and some of the recommendations** throughout Section 5. The full original memo is reproduced below.

## J.2 Landscape Analysis Findings (February 2026)

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**Overview.** The purpose of a Landscape Analysis is to identify key potential partners, opponents, and community resources that have an interest in or influence over the project and any proposed changes. The analysis integrates multiple perspectives, cultivated through 1:1 conversations with community partners, to understand local community context and form the basis for long-term relationship-building.

**What we did.** The Landscape Analysis began with a conversation with the City of Salem and community-based organizations to identify priority groups, followed by 1:1 conversations with **16** community-based organizations, municipal departments, and other community leaders, conducted between December 2025 and February 2026.

### Conversations conducted

**Municipal:** Marc LeBlanc (Executive Director of Instructional Tech), Kristin Condon (Coordinator of Digital Learning), Laura Assade (Director of DEI & Engagement) – Salem Public Schools · Tara Mansfield, Director, Salem Public Library · Kerry Murphy, Health and Wellness Coordinator, Salem for All Ages · Teresa (Terry) Arnold, Director, Council On Aging · John Ankiewicz, Director of IT and Innovation, and Patrick Libby, Network Manager – City of Salem · Tom Daniel, Director of Planning and Community Development, and Rachel Vresilovic, Planner/Conservation Agent – City of Salem · Kathlyn Valianti and Alex Dominguez, Resident Service Coordinators, Salem Housing Authority.

**Community organizations and regional partners:** Sara Stanely, Executive Director, HAWC · Kate Machet, VP of Systems Initiatives and Government Relations, Essex County Community Foundation · Jeron Reddick, Director of Community-Based Case Management, Lifebridge North Shore · Robyn Burns, Executive Director, Salem Food Pantry · Shantel Alix, Director of Community Building, and Ashley Ganam, Director of Development – North Shore CDC.

**Internal MAPC landscape conversations:** Sarah Scott (NSTF Subregional Coordinator, Land Use) · Avanti Kroví (Salem Jefferson Ave, Land Use) · Francelis Morillo Suarez (Community Heat Resiliency, Clean Energy) · Stephen Larrick (Community member, Digital Services) · Emma Zehner (Municipal Vulnerability Plan, Clean Energy) · Javier Gutierrez (North Shore Conference on Emergency Preparedness, Community Engagement).

### Themes that emerged

**Ask Fatigue / Lack of Reciprocity – residents, especially in The Point, feel constantly asked questions across multiple projects without seeing their problems resolved or receiving anything in exchange, leaving frequently engaged residents somewhat tapped out.**

**Trusted Partners and Strong Relationships – Salem's community-based organizations have built a robust, well-trusted network of supportive services; community members extend that trust to people CBOs bring in.**

**Keep It Simple – plain language and low-fi, accessible engagement materials work better than overcomplicated methods; most people find it easier to simply converse about topics.**

**Heightened Sense of Fear and Hopelessness – these conversations occurred in late 2025/early 2026 amid ramped-up federal immigration enforcement activity and federal grant and service cuts; CBOs reported people are “not out like they used to be” due to fear.**

**Relying on Multiple Ways of Engagement – effective outreach adapts methods to the community (1:1 interviews, door-knocking, social media, focus groups, community events).**

## Resulting engagement principles

**Work with Trusted Community Members – build on existing trusted relationships rather than reaching residents directly.**

**Ensure Reciprocity through Incentives and Plain-Language Resources – explain how feedback will inform the plan, and compensate residents and CBOs for deeper engagement.**

**Coordinate Engagement Efforts and Meet People Where They're At – leverage existing community gathering spaces rather than convening new meetings.**

**Ensure Full-Circle Communication – share materials summarizing what the team is hearing and seeing after each phase, and keep <https://salemna.gov/1284/Digital-Equity-Plan> current.**

## Conversation summaries

**Tara Mansfield, Director, Salem Public Library** (Dec. 15, 2025). The library's most-used digital equity assets are its PCs, low-cost printing, and on-demand IT support; tablets and hotspots are available for checkout, and public Wi-Fi runs an hour before opening to an hour after closing (shortened from 24/7 after people began living on-site). Main digital literacy challenges involve forms and attachments, compounded by phone-only access. Library staff are trained in de-escalation. The library is working to better connect with the Spanish-speaking community, including monthly book readings at a Point-neighborhood laundromat.

**Kate Machet, VP of Systems Initiatives and Government Relations, ECCF** (Dec. 18, 2025, virtual). Kate highlighted ECCF's digital equity coalition, NSCDC's work in The Point, Tek Collaborative's device distribution, and Tech Goes Home's digital literacy work. She named lack of funding, lack of sustained awareness, and the need to proactively address AI and equity as challenges, called Salem “a great case study” (“Salem is crushing it, they are the best, the most ahead of it”), emphasized an ecosystem-based approach across hubs, and suggested including the private sector (small businesses, Salem State contacts, Salem Alliance for the Environment).

**Jeron Reddick, Director of Community-Based Case Management, Lifebridge North Shore** (Jan. 7, 2026, virtual). Lifebridge serves the unhoused population across the North Shore, operating a Salem Day Center (~70 people, numbers rising), a Thrift Shop, a community center (Columbus Club), and emergency/transitional housing, plus facilities in Gloucester, Beverly, and Lynn. The Day Center offers device chargers, phones, and office space for Zoom/telehealth; staff would like a dedicated digital navigator or IT person. About 80% of clients rely on free phones, which have been hard to access lately; affordability, device access, and internet access are the main challenges. Jeron would like to see more public Wi-Fi and private spaces for calls.

**Robyn Burns, Executive Director, Salem Food Pantry** (Jan. 9, 2026, virtual). The Pantry operates a choice-shopping-model food pantry out of the NSCDC building plus a mobile truck visiting 64 locations, and is building a second market location. Robyn initially did not see strong digital equity connections but identified the Pantry's underused digital newsletter and online sign-up/reservation system as overlaps; wi-fi at the new market location, especially for people waiting in line, emerged as a possibility during the conversation.

**Marc LeBlanc, Kristin Condon, Laura Assade – Salem Public Schools** (Jan. 14, 2026, virtual). The district runs a tech help desk, a data department, and digital literacy/citizenship instruction; partners with Tech Goes Home when funded, sending Chromebooks home from 9th grade; runs tech internships and an afterschool computer repair club. Persistent issues include Wi-Fi infrastructure and notoriously bad internet on the Common and Bridge Street; the district lacks a no-cost-internet resource and notes hotspots alone are insufficient. Parents' device/literacy gaps create enrollment and communication barriers. The district has a tech plan but lacks funding to operationalize it.

**Sara Stanely, Executive Director, HAWC** (Jan. 23, 2026, virtual). HAWC provides emergency shelter, clinical and advocacy services, and housing navigation for survivors of domestic abuse. Technology can be used as a tool of control (tracking devices/location); HAWC partners with ECCF, TEK Collaborative, and Verizon to provide free Chromebooks and mobile hotspots survivors can take between shelters. Sara raised an open question about whether public/community networks increase hacking risk, expressed interest in training other service providers and in regional collaboration, and suggested the Salem Disability Resource Center and the New American Center (Lynn) as additional stakeholders.

**Kerry Murphy (Salem for All Ages) and Teresa Arnold (Council on Aging)** (Jan. 30, 2026, virtual). [insert TBD – detailed notes not finalized at time of this memo.]

**Shantel Alix and Ashley Ganam, North Shore CDC** (Feb. 17, 2026, virtual). NSCDC began addressing the digital divide through its YouthBuild program during COVID, which revealed gaps in access, devices, and literacy; it built a neighborhood mesh network serving 1,100+ units with a centralized login portal for connectivity and skill-sharing, supported by ECCF funding and TEK Collaborative device distribution. NSCDC's approach starts with community priorities, uses flexible curricula, and embeds digital literacy across case management, housing applications (RAFT), workforce development, small business support, and YouthBuild. Sustaining funding and aligning with state priorities are key goals; engagement relies on social media, door-knocking, interviews, and events, with trust-building remaining a challenge. NSCDC invests in resident leadership through its ambassador program.

## Conversation Guide and Protocol (excerpted)

**Principles of engagement:** Center people and relationships rather than process; practice full-circle communication; ensure accessibility for people with varying physical, linguistic, financial, or other abilities.

**Standard project description used in outreach:** “The City of Salem is working with MAPC to create a Digital Equity Plan which is a roadmap for improving (1) internet access and affordability, (2) device access, and (3) digital literacy. The plan has a specific emphasis on those most impacted by the digital divide including Spanish-speaking residents, residents with disabilities, residents living on low incomes, residents experiencing housing insecurity, BIPOC communities, formerly incarcerated individuals, youth, and older adults. Included in the plan will be an assessment of local conditions including digital equity assets, recommendations to support the community with their digital equity goals and challenges, and local policies and funding opportunities for the City to consider. Our goal is to build on the work already happening in Salem, rather than starting from square one.”

**Sample discussion questions:** organizational involvement and populations served; primary challenges marginalized communities face accessing the internet and technology; populations with least access; resources communities rely on to resolve connectivity, literacy, device, and affordability issues; changes in access needs over time; barriers or pushback faced on digital equity work; what the plan should address; engagement methods that work best; languages spoken and interpreter needs; connections to formerly incarcerated individuals and Indigenous communities; reactions to an asset-mapping workshop format.

**Closing questions:** anything missed; who else to talk to; how the partner wants to stay involved going forward (e.g., reviewing and prioritizing recommendations); next steps and resources to share.

**After the conversation:** send a follow-up thank-you with a summary within one week; organize takeaways and upload notes to SharePoint and the project Airtable; complete the Landscape Analysis Tool entry.

# Appendix K: Qualitative Engagement Summary

## K.1 Summary

The Qualitative Data / Community Outreach memo is the **most detailed engagement document** compiled for this plan. It documents **15 stakeholder interviews** (a near-duplicate of the Landscape Analysis conversations in Appendix J, with minor roster differences), **six direct resident engagement events** totaling **71 individual conversations**, and an **extensive thematic analysis spanning** trusted technology access, affordability, device support, AI literacy, language access, and outreach/funding sustainability challenges. Its recommendations subsection, organized by stakeholder type, is a primary basis for Section 5 of this report. The full original memo is reproduced below.

## K.2 Community Outreach / Qualitative Data Memo

**Community outreach.** The community outreach for the Salem Digital Equity Plan started with landscape analysis conversations with the City of Salem and Community Based Organizations to identify priority groups. Following the initial conversations, the project team conducted 1:1 conversations with 15 community-based organizations, municipal departments, and other community leaders between December 2025 and February 2026, structured around the same conversation guide as Appendix J.

Municipal conversations in this memo's roster additionally include: Lisa Peterson (Chief of Staff) and Sabrina Trask (Communications Director); Regina Zaragoza Frey (DEI Director); Julio Mota (Constituent Services Director) – alongside the Schools, Library, Council on Aging, IT, Planning, and Housing Authority contacts also listed in Appendix J.

### Engagement learnings

This memo documents the **same five engagement themes** as the Landscape Analysis Findings memo (Appendix J): ask fatigue/lack of reciprocity, trusted partners and strong relationships, the value of keeping engagement simple, a heightened sense of fear and hopelessness tied to federal enforcement activity, and the need to rely on multiple engagement channels – and the same four resulting principles (work with trusted community members; ensure reciprocity; coordinate and meet people where they are; ensure full-circle communication). See Appendix J for full text; they are not repeated here to avoid duplication.

### Resident engagement events

| Location                                                  | Time         | Event type                       | # of conversations |
|-----------------------------------------------------------|--------------|----------------------------------|--------------------|
| Salem 400+ event                                          | January 2026 | Tabling                          | 30                 |
| Bilingual storytime at the Fresh Express Laundry Center   | April 2026   | Pop-up                           | 3                  |
| Canvassing at the Rainbow Terrace Salem Housing Authority | April 2026   | Intercept interviews             | 4                  |
| Multilingual Family Night at Salem High School            | April 2026   | Tabling and intercept interviews | 6                  |
| Salem Housing Authority Coffee Hour                       | May 2026     | Focus group                      | 5                  |

| Location                                 | Time     | Event type | # of conversations |
|------------------------------------------|----------|------------|--------------------|
| St. Peter's—San Pedro Church Coffee Hour | May 2026 | Pop-up     | 23                 |

## Existing Conditions (from Qualitative Engagement)

**1. Community organizations are essential providers of digital support for vulnerable and marginalized groups.** They emphasized getting connected privately and safely, including safe and reliable device access. HAWC provides clean, untampered devices so domestic abuse survivors can communicate and access services while protecting privacy and safety; organizations also emphasized internet access “on the go,” including public internet at Lifebridge and mobile hotspots from HAWC. Digital literacy support is often embedded within broader programs – NSCDC integrates digital skills into YouthBuild, small business, and workforce development programming; day centers at HAWC and Lifebridge serve as spaces to access technology and receive informal support.

*“The neighborhood you're sitting in is Massachusetts first digital equity neighborhood with free Wi-Fi inside and out via the North Shore CDC and I think that is leading the entire Commonwealth in digital equity.”*

– Community Advisory Group member

**Trusted community connection.** Organizations emphasized that trust and long-standing relationships with residents are critical. Lifebridge, HAWC, and NSCDC have built strong connections over time, making residents more comfortable seeking help through these organizations. Lifebridge noted that trust at the Day Center is strong enough that staff can bring in external partners and people will trust the resources brought. NSCDC intentionally integrates digital support into ongoing programming (YouthBuild, workforce development, small business technical assistance) through small, low-effort adjustments to service delivery.

**Community-led digital skill building: a case study of NSCDC.** NSCDC invests in resident leaders through its resident ambassadors program, training peer leaders to facilitate technology classes within their own communities. Their approach starts with community priorities and uses flexible, customizable curricula with assessment tools to tailor training; a dedicated older-adult digital literacy program has roughly 125 residents enrolled and aims to provide devices and internet access following training, partnering with TEK Collaborative.

*“They not only send me emails – they've booked flights and use the patient gateway. They have access to the patient gateway, I teach them all the little details that they always want to learn.”*

– NSCDC staff

ECCF recognized the effectiveness of NSCDC's community outreach coordinators in building relationships and connecting residents to digital resources and programming.

**2. Municipal partners provide a breadth of services and staff support.** Salem Public Schools, the Salem Public Library, and the Council on Aging provide a range of programs and direct support; the library offers in-person, on-demand tech support, and a COA community member helps older adults with phone-related technology support.

**Language support in Spanish.** Many essential services – permits, school registration, other municipal processes – are now online-only, and city/school staff actively work to bridge that gap. Documents, online forms, and permit applications can be difficult to navigate, particularly without reliable internet or strong digital skills. The Mayor's Office has made targeted efforts on Spanish-language access, but language access on the city website remains a challenge, especially in Haitian Creole, Portuguese, and Arabic.

*“We are doing better in addressing needs in Spanish, which is the largest language other than English. And so Spanish is mostly covered in a lot of ways, but it's the one language that we should be offering no matter what, if we can cover any other languages. But we're really struggling to meet language needs other than Spanish, and that includes Portuguese and Haitian Creole and other top languages in the city.”*

– City staff

**Salem's municipal digital services connect constituents with targeted support for marginalized communities.**

As more services move online, not all residents can easily navigate them; Constituent Services staff serve as a bridge. Targeted support is needed for platforms such as CodeRED, SeeClickFix, and neighborhood Facebook groups, using tabling, print materials, on-site assistance, and QR codes. Police, Fire, and DPW/Engineering alerts are widely used, with many residents already enrolled. The City is interested in a public digital services inventory and an internal vendor-contract inventory for accountability and machine-readable data access.

*“Missing alerts can be a hardship... You have to pay a ticket, you have to pay hundreds of dollars, maybe more if you really let your car sit in the tow yard for a week. You could pay \$1,000. It could be very expensive.”*

– City staff

**Schools** frequently assist multilingual families with online registrations and other digital processes, given varying digital skills, English proficiency, and other challenges; the district's technology plan empowers educators, centers family belonging, and plans long-term technology investment, including 9th-grade-and-up Chromebook lending, digital literacy/citizenship instruction, and coursework such as graphic design and coding, plus student technology internships and a computer repair club, and family device/skills support via Tech Goes Home (while funded).

**The Public Library** regularly assists residents with technology questions, including de-escalation support, and provides free Wi-Fi during open hours. Both the library and COA serve as accessible, trusted spaces for residents experiencing housing insecurity.

**3. Ecosystem and partnership focused approach.** Some organizations, including HAWC, expressed strong interest in regional partnership but noted the lack of a convening entity to coordinate efforts.

*“Look at ecosystem, where things are falling down, what are the entities that can step in to replace them.”*

– Essex County Community Foundation

The closure of Tech Goes Home left a gap in digital literacy classes with illustrated demand across a diverse population, affecting North Shore CDC (3 classes), Salem Public Schools, Caritas Communities, Boston Senior Home Care, and South Sudanese Enrichment for Families. Salem has a tight-knit collaborative network, but gaps in sustained investment limit capacity, and even available funding can become fragmented – for example, the

Council on Aging has laptops available for residents who complete a technology literacy course, but lacks staff capacity to run the program, despite community readiness.

**4. Digital Equity intersects with community priorities.** Language access remains a critical pathway to full digital access; the City has identified it as a top priority, with ongoing work to make both online and in-person resources accessible in priority languages beyond English and Spanish, including easier language-switching on the City website.

**Economic development:** NSCDC supports young adults through YouthBuild (resumes, online job applications, career support) and small businesses through workshops on Google Sites, digital appointment management, and Canva marketing; ECCF emphasized bringing small business growth and digital capacity building into digital equity planning.

**Culture:** schools noted a digital and cultural divide in communication preferences (e.g., email versus WhatsApp among different families).

**Transportation:** the Council on Aging provides transportation services and supports residents using transit/rideshare apps such as Salem Skipper; Community Advisory Group members pointed to MBTA Go and Salem Skipper as assets, while the COA also identified the Salem Skipper app itself as a transportation challenge for older residents without app access.

**Food access:** the Salem Pantry uses digital tools to market programs and manage entry-time and registration sign-ups, both generally underutilized; people waiting in line make the Pantry a good candidate space for free Wi-Fi.

**Digital Equity Assets:** underutilized resources like the COA computer room; activating non-traditional community assets like churches and mobile housing units (raised by the Community Advisory Group); City buildings with guest Wi-Fi (City Hall and annex); online platforms such as Reddit, salem.gov, and YouTube; accessibility apps such as Be My Eyes.

## Community needs and challenges (from Qualitative Engagement)

**Need for trusted and private technology use.** Access to safe, reliable spaces for technology use is a significant barrier for high-risk groups, particularly residents experiencing homelessness; libraries and similar resources are not always experienced as safe or welcoming.

*“I actually have had that problem for a long time, I was just homeless for 10 years in Boston on Mass Ave... like libraries, stuff like that, it's not an option. As soon as you step in the cops are called, even if you're not doing anything wrong.”*

– Resident interviewed at the Point neighborhood laundromat engagement

HAWC highlighted the complex role technology can play in abusive situations (controlling device use, tracking location). There is also a need for community/public internet access paired with private space for use – libraries and municipal buildings offer free Wi-Fi, but residents pointed to an opportunity for more private, supportive spaces for work or study.

*“So we had a period of time when I wasn't able to work... it was very hard also to get internet at home... I have to go to the library to get access. So it would be a good idea for helping low socioeconomic families who cannot afford to get internet through their home.”*

– Parent, multilingual family night engagement

**Poor internet quality and affordability challenges.** Connectivity is inconsistent, with slow/unreliable service especially pronounced during storms and high tourism season.

*“The challenge you face is sometimes the internet connection is really spotty and slow. If there's like storms it's slow or like when there's a surge in tourism here in Salem it gets really slow and we lose a lot of connectivity.”*

– Salem Housing Authority resident

Limited ISP choice contributes to both affordability and quality complaints; many households have few alternatives to Comcast/Xfinity.

*“If I could switch providers, I would, but I can't.”*

– Salem Housing Authority resident

Internet and device costs remain a significant financial burden: one resident reported paying approximately \$175/month for a single phone line; mobile-data-reliant residents described limiting usage to avoid running out of data. Discounted programs like Xfinity Internet Essentials (roughly \$15–\$30/month via National School Lunch Program eligibility) help, but enrollment and awareness gaps persist – several St. Peter's–San Pedro engagement participants did not qualify for or were unaware of discount programs. Lifebridge, HAWC, the Council on Aging, the Health Department, and the school district all separately identified affordability as an ongoing concern, noting that even low-cost options may remain out of reach for some residents.

**Device support needs.** Access to reliable devices remains a critical barrier, particularly for families with limited resources or shared devices. Several residents wanted laptops but cited affordability; some settled for more basic devices while wanting higher-quality computers for their children's education. One Salem Housing Authority resident obtained a device through an NSCDC pop-up distribution. Meaningful access requires more than providing a

device alone – schools emphasized the need for ongoing repair and maintenance guidance. Smartphones remain the primary, sometimes only, device for many residents; households with multiple devices typically had children with school-issued equipment. Schools noted that smartphone fluency does not always translate into computer fluency for educational or professional tasks. Community partners, including Lifebridge, also raised concerns about the reliability and funding status of government-supported phone programs.

**Education and guidance for safe tech use.** Residents identified a need for basic troubleshooting support, including navigating ISP customer service and discount program eligibility, and described relying heavily on informal networks (especially children) for help. The Council on Aging highlighted cybersecurity risks for older adults and residents with limited digital skills as more services move online. There is strong resident interest in building digital skills for both everyday use and economic mobility – many St. Peter's–San Pedro participants specifically wanted to learn typing, Excel, and similar workplace skills.

**AI education and safe AI use** emerged as a recurring theme: residents described AI as helpful for writing, communication, and even cooking, but several Housing Authority engagement participants conflated AI with VR or autocorrect. Parents expressed interest in learning to use AI tools safely, particularly as it becomes more relevant to their children, and suggested schools extend existing AI safeguards into home guidance.

*“It would be helpful if some of the safeguards they use at the school or some of the applications that they use at the school, it would be helpful if the school had a way to communicate how to appropriately use them at home or have some sort of teaching, whether it's a video, whatever, they can send out to the parents on how to properly use them.”*

– Salem Housing Authority resident

**Different generations experience different digital challenges:** older adults need the most support learning new tools, plus help navigating affordability and benefit eligibility; middle-aged parents often have basic/rudimentary skills and rely on their children for troubleshooting; youth are generally comfortable and confident with technology.

**Need for greater resident support navigating Salem's municipal digital services.** Residents described difficulty with platforms such as SeeClickFix, the Passport Parking app, MyRec, and the Salem Skipper app (e.g., confusion registering for piano lessons via MyRec). Digital access is not solely about connectivity and devices – online systems also need to be understandable and accessible; municipal partners noted residents struggle with online forms, document uploads, and attachments. Stakeholders raised additional barriers, including device access for uploading documents (Lifebridge) and the need for de-escalation support tailored to residents experiencing mental health challenges (library staff), alongside broader concerns about trust in government systems. Schools were cited as a strong example of pairing digital tools with effective user support (e.g., digital report cards families find easy to navigate because schools provide guidance).

Survey context from city-website use comments: most respondents use the city website to pay bills and find it fine (5 mentions), one found name entry confusing after a software change, two use it to stay up to date, and three don't use it.

**Translation tools** (browser features, Google Translate) help many Spanish-speaking residents navigate web content not available in Spanish, though some content types (news articles, documentaries) remain difficult to translate effectively.

**Internet safety, privacy, and online content concerns,** particularly regarding children, were raised by many parents balancing supervision with their children's privacy and independence.

**Tech capacity (brief notes from source memo):** staff have limited IT knowledge in some settings, and library staff in particular don't always know the answer to very specific technical questions.

**Internet as a platform for social connection and belonging.** Internet access was described as important but ranked behind utilities, rent, and food on residents' triage scale – some households reported canceling internet service because other expenses took priority, even though digital exclusion also functions as a barrier to social support. Digital exclusion is not always driven purely by lack of access: some residents remain only partially connected due to hesitancy or a sense that digital tools are not relevant to their needs, using phones only for calls. Residents also described digital tools as important for cultural and social connection across distance and generations, including language-learning apps that help children maintain a home language.

*“There are apps where my kids learn my language, because I speak Arabic, and Arabic is hard. I was a high school teacher, so I know it's hard to learn it. And I put them both in school to learn it here, but still hard for them because of different alphabets, right to left reading. So, when they use the app, at least they get familiar with the words, with the connection and the words connect to each other, stuff like that.”*

– School parent, Arabic language speaker

## Outreach challenges (from Qualitative Engagement)

Stakeholders identified ongoing challenges reaching priority populations through digital engagement, including difficulty connecting with Spanish-speaking residents (library) and reaching older adults from marginalized backgrounds (Council on Aging, Salem for All Ages). NSCDC noted that distrust of technology itself can affect participation in online services and programs, and schools observed that immigrant families may come from different digital cultures that shape how they interact with online systems. Residents emphasized the need for outreach across multiple channels (Facebook groups, flyers, WhatsApp), flexible scheduling (evening programs), and multiple locations; many said they preferred to hear about programs through their church or word of mouth from trusted staff such as resident services coordinators.

**Funding and capacity challenges** threaten sustainability across the ecosystem. Schools cited ongoing post-COVID funding pressure; ECCF and the Council on Aging flagged funding that either failed to materialize or has since ended; Lifebridge, HAWC, NSCDC, and the Salem Food Pantry all separately described capacity constraints limiting their ability to support residents' digital access needs, including government phone programs. ECCF additionally raised concern about the future of community health centers and noted a general lack of awareness of digital equity as an issue; the Community Advisory Group noted the rapid rate of technological change as an ongoing planning challenge.

## Recommendations and suggestions (from Qualitative Engagement, source memo)

**Community organizations:** training service providers / in-house tech help (HAWC, Lifebridge, Salem Food Pantry); improving Wi-Fi access (specific public spaces via Lifebridge; HAWC capacity; guest network needed at the Food Pantry); adapting program frameworks to incorporate tech needs into how organizations already work with people, rather than as separate add-ons (NSCDC).

**Municipal partners:** reaching essential workers (e.g., janitorial and cafeteria staff) who are not frequently on computers or email (schools); building digital literacy into normal curriculum rather than stand-alone classes (schools); more tech training for staff and more free public resources (library).

**ECCF:** create an AI policy for the school system; capitalize on private-sector opportunities.

**Community Advisory Group:** build local repair skills through community member training and after-school programs in middle and high schools; invest in digital navigation given a constantly adapting digital system;

expand digital/internet access at MBTA train stations, historic sites, public parks (Salem Common, community gardens).

**Community engagement suggestion:** include small businesses in plan development (ECCF).

# Appendix L: Digital Equity Planning Survey Results Summary

## L.1 Summary

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Salem's Spring 2026 **digital equity resident survey (n=393)** is reproduced in full below. As emphasized in Section 3.1, this survey is not representative of Salem's population and should not be read as a stand-alone evidence base – see the prominent warning in Section 3.1 before citing any figure below.

## L.2 Original: Salem Digital Equity Plan Survey Findings (Responses: 393)

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### Have internet service

2% no (6 respondents). 83% of these respondents did not have internet service because they couldn't afford it (5 respondents). **Respondents who didn't have internet used a variety of locations for service, including businesses (1), community centers (1), a friend or family's home (2), a library or government building (1), and school/university (1).**

98% yes (384 respondents). 85% of these respondents used Comcast, 5% used T-Mobile, 5% used Verizon, 4% used another provider. 94% had Wi-Fi; 52% had mobile service; 38% had a wired/ethernet connection.

Almost one third (32%) of connected respondents “disagreed” or “strongly disagreed” **that their home internet works well enough to meet their household's needs.**

77% indicated their internet is “too expensive”; over half (58%) indicated their service cuts out or drops; **31% indicated their internet is “very slow”**; 25% indicated their ISP does not provide good service or that installation was difficult.

20 respondents (6%) said their internet bill was “very hard” to pay, while 85 people (24%) said it was “somewhat hard.” **The remaining 70% of respondents to the question found it “somewhat easy” or “very easy.”**

### Device access

Almost 20% of respondents “sometimes,” “often,” or “always” do not have enough devices **to meet their household's needs – 52 people “sometimes,” 9 people “often,” and 12 people “always.”**

The reason given for not having enough devices was overwhelmingly affordability.

Device types: **see chart in original survey deliverable (not reproduced in tabular form here).**

## Digital literacy

When faced with device issues, people primarily troubleshooted themselves or looked online; **when going external, people went to technical support or friends/family.**

Less than half of respondents felt currently able to complete **training, schoolwork, or use a school website.**

Most people were “very comfortable” learning new internet skills; **among those who weren’t, 12 people were “somewhat uncomfortable” and 4 were “uncomfortable.”**

The most popular choice for building digital skills (56%) was online self-paced training; **over a quarter of respondents indicated one-on-one in-person help (83 people) and in-person classes (80 people) would be helpful.**

## Internet use

89% of people used the internet to communicate with healthcare professionals, 74% for work, **68% to access government services, and 25% for school.**

Most people used the internet every day to keep in touch with loved ones and for entertainment (**see internet use matrix in original survey deliverable**).

## Salem government services

88% of respondents have used online portals to access Salem government services.

Most people (68%) found it “somewhat easy” to use; **45 people found it “very easy” and 51 people found it “not easy at all” to use.**

## Internet safety

Half of respondents were “very concerned” about internet safety, **43% were “somewhat concerned,” and only 3% were “not at all concerned.”**

Though concerned, 93% of respondents were “somewhat confident,” “confident,” or “very confident” **about maintaining their internet safety, while 23 people were “not at all confident.”**

35% of respondents were “somewhat interested” **in learning more about resources to stay safe online.**

## Demographics

98% of respondents lived in Salem and 22% worked there. 12 people owned a commercial property or business.

82% of respondents were between the ages of 35 and 74.

81% of respondents were white (disproportionate to the City's population).

Most people (63%) did not have any children under the age of 18.

38% of respondents had graduated from a 4-year college, and 36% also had a postgraduate or professional degree (also disproportionate).

73 people identified as LGBTQIA+.

66 people identified as disabled / having a disability.

92 people identified as senior.

20 people identified as living in affordable housing.

About half of respondents to the question indicated an income of \$100,000 or more (also disproportionate).

# Appendix M: AI prompts

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**NotebookLM Prompt for Visual Executive Summary** —> **ROLE:** Combine two experts — a municipal digital-equity Principal Planner (translates dense data into plain language anyone grasps in seconds) and a Master Visual Infographic Illustrator (single-page executive dashboards, restrained color, icon-driven hierarchy).

**TASK:** Generate exactly ONE slide — no deck, no extra slides. If more than one is produced, only the first counts; ignore the rest. This is a public-facing (residents/press/Council) visual executive-summary infographic of the "Salem Digital Equity Plan."

**FIRST:** Review all uploaded sources (plan PDF, appendices, "Visual Executive Summary Brief") so every word/number is grounded there. Never invent stats, quotes, or recommendations.

**SPEC:** 8.5x11 in, LANDSCAPE (11 in wide). Full bleed — no white border. Minimal text: numbers/short labels/phrases only, nothing over ~14 words. Zero spelling/factual errors — proofread before finalizing; accuracy beats decoration.

**STYLE** — reuse this plan's existing brand, don't invent a new one:

Colors: Navy #1A375F (primary), Teal #007A8A (secondary), Gold #C59A00 (accent), light-teal #E0F4F6 & warm-gray #E8E4DF (backgrounds), white #FFFFFF, dark text #262626.

Type: serif headlines (Georgia-like); sans-serif numbers/labels (Calibri-like); stat numbers = largest, boldest element on page, bigger than headlines.

Motif: stylized Wi-Fi icon (concentric arcs), ideally with subtle photo/texture fill evoking Salem's brick streetscape, echoing the plan's cover; plain navy/gold Wi-Fi icon is an acceptable fallback.

Icons: flat, thin-stroke, single-color, consistent weight (not photorealistic/3D) for populations & pillars.

Logos: MAPC, City of Salem, MBI — small, side by side, header or footer; never larger than or competing with the headline.

Tone: confident, optimistic, dignified — opportunity/inclusion framing; no alarm/warning colors.

**CONTENT** — use ONLY this; add nothing else:

Header: "Salem Digital Equity Plan" / tagline "Connecting All Salem Residents to Opportunity, Education, and Services" / label "Executive Summary" / status "Draft Plan — Community Input Welcome."

Why it matters (one line, adapt lightly): "In Salem, not every resident begins each day with the same digital footing. This plan closes that gap." OR "Reliable internet is no longer a convenience — it's how Salem residents access healthcare, school, and work."

Three Pillars (icon + 1 word): Connection (affordable, reliable home internet) — Devices (a computer/tablet beyond a smartphone) — Skills (know-how to use them safely, confidently).

By the Numbers (5-6 large bold stat cards): 44,241 Salem residents (ACS 2019–2023) — 9.6% of households (~1,951) have no internet at home — 65% of broadband locations served by only one provider — 19.4% of workers now work from home — +57% projected growth in residents 75+ by 2050 — 43.6% of households are housing cost-burdened.

Priority Populations (icon row, all 7, 1-3 word labels): Low-income households — Older adults (75+) — Limited English proficiency residents — Residents with disabilities — Environmental Justice communities — Domestic violence survivors — Youth and students.

Recommendations (7 short pill phrases, themes only, no numbered list items): Lower the Cost of Broadband — Expand Digital Literacy Training — Strengthen Language Access — Invest in Trusted Community Partners — Protect Digital Safety for Survivors — Support Student & Family AI Literacy — Build Lasting City Coordination.

Footer: "salemma.gov/1284/Digital-Equity-Plan" / "Prepared by MAPC, in partnership with the City of Salem."

**EXCLUDE** (unconfirmed in source — never show on this public slide): specific ACP/Affordable Connectivity Program dollar-loss figure; specific MBI grant dollar amounts (Loring Towers, Fairweather, municipal fiber, or any other); specific count of Tech Goes Home sites affected by closure; any 2024-dated ISP coverage percentages (Comcast/Verizon/T-Mobile) — only the confirmed "65% one provider" stat above is allowed; any internal-review language ("VERIFY," "draft for internal use," "Tier 1/2/3," AI-drafting disclosures, federal-funding-uncertainty mentions).

**LAYOUT:** Top — full-width navy band: logos (left), title+tagline (center), "Executive Summary" (right). Upper-middle, 3 columns — "Why It Matters" + Wi-Fi motif (left); "Three Pillars" icons (center); "Priority Populations" icons (right). Middle — "By the Numbers": 5-6 stat cards in a row, alternating navy/teal/gold, big number over short label. Lower — "What We're Recommending": 7 pill chips, 1-2 rows. Bottom — thin footer: URL, credit line, status line.

**FINAL CHECK:** (1) Exactly one slide, landscape, full bleed, no border? (2) Every word/number traces to the content above or uploaded sources, none from the exclude list? (3) All spelling correct? (4) Could a resident with no planning background grasp purpose + top priorities in under 30 seconds?

**Link to Executive Summary infographic:** [OneDrive](#)

