District of Columbia
State Broadband and Digital Equity Office

District of Columbia State Digital Equity Plan

Digital Equity Capacity Building Grant Program

DRAFT

November 2023

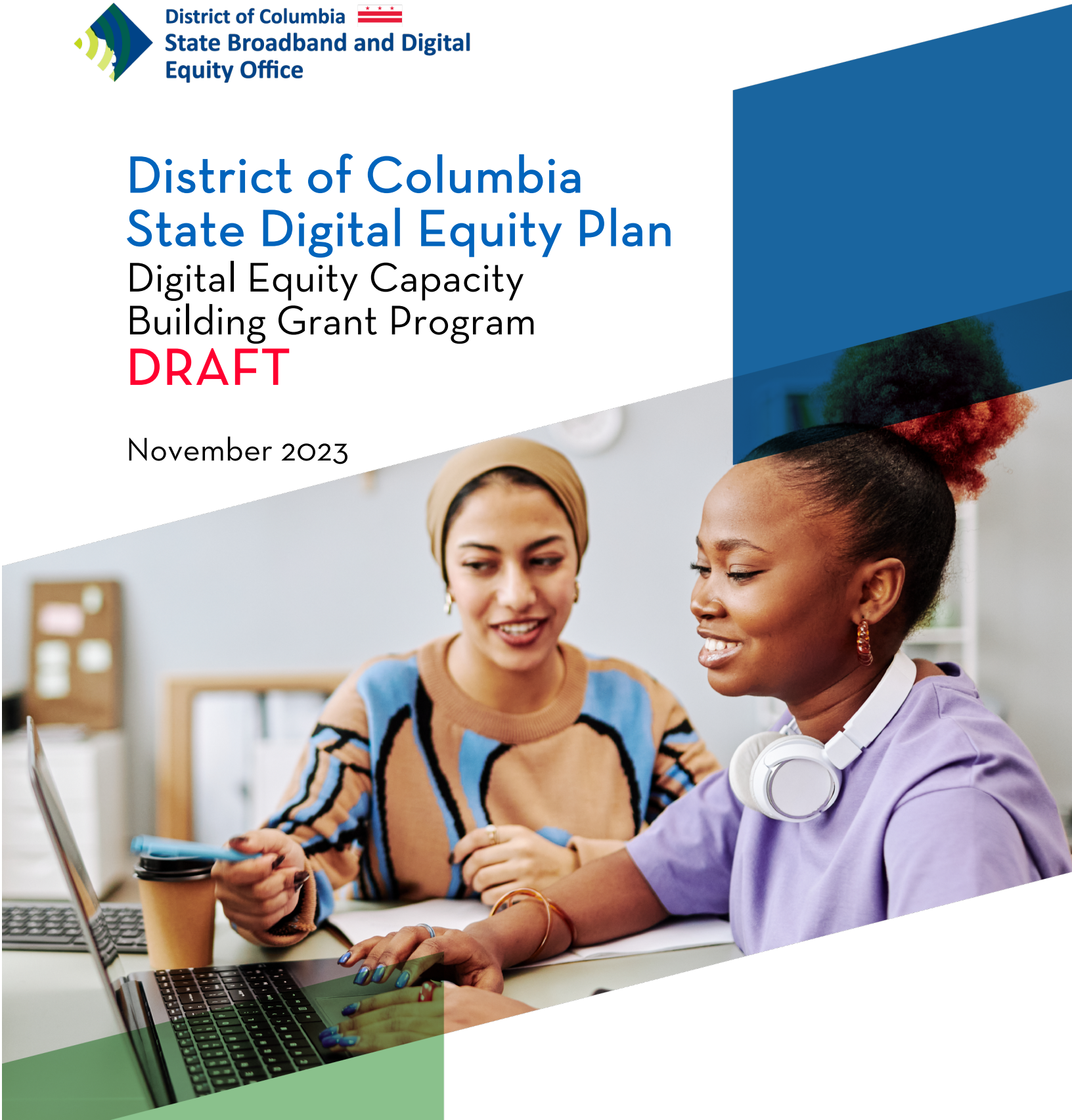

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Table of Contents

1 Executive Summary

The guiding values of the District of Columbia's leadership[1] are based on growth, equity, education, workforce opportunities, access to government services, and sustainability (Figure 1). Each of these values—and many of the actions that can be taken to achieve them—can be enhanced by equitable access to high-speed internet, and a population equipped with the digital skills to productively use computers and the internet.

Figure 1. District of Columbia, Guiding Values presented in the Mayoral FY2024 #Fairshot Budget Overview, presentation to the DC Council, March 22, 2023

The DC State Broadband and Digital Equity Office (DC SBDEO) has a vision for the District in which every resident and every business, in every corner of DC, can live, work, and thrive in the digital age – without bias or barriers. Through the leadership of the Office of the Chief Technology Officer and now through the State Broadband and Digital Equity Office, the latter of which was founded in 2022, the District has been doing the work to achieve that vision, including:

[1] https://mayor.dc.gov/sites/default/files/dc/sites/mayormb/page_content/attachments/FY2024%20BUDGET %20PLAN_Presentation%20to%20Council_a.pdf

- Deploying high-speed, fiber-based Internet services to health, education, and social service Community Anchor Institutions (CAIs)[2] by leveraging seed funding from the Broadband Technology Opportunities Program (BTOP),[3] which has provided E-Rate services[4] since 2011
- Deploying over 700 public Wi-Fi hotspots throughout DC
- Deploying high-speed Wi-Fi at two public housing locations, Potomac Gardens and Hopkins Apartments, under a pilot program with the DC Housing Authority, and at five family homeless shelters in partnership with the Department of Human Services
- Administering multiple digital equity programs through the Connect.DC program[5]
- Creating the TechTogether DC program, a values-led partnership among the DC government, the non-profit community, academia, and industries working together to bridge the digital divide through access, training, and opportunity.

[2] Schools, libraries, medical facilities, and others likely to subscribe to enterprise-grade internet service.
[3] The Broadband Technology Opportunities Program (BTOP) is a grant program administered by National Telecommunications and Information Administration (NTIA) to help bridge the technological divide, create jobs, and improve education, health care, and public safety in communities.
[4] E-Rate, a program of the Federal Communications Commission, provides discounts for telecommunications, Internet access, and internal connections to eligible schools and libraries.
[5] A digital inclusion initiative of the DC Office of the Chief Technology Officer

Figure 2. Map of DC wards

To continue driving forward toward the vision, DC has a robust asset base that spans infrastructure and digital equity programs that it plans to leverage. DC has over 70 broadband and digital inclusion assets across broadband infrastructure networks and access points, as well as digital equity programs. These assets are already working towards closing the digital divide.

Nevertheless, there is still much more work to be done to achieve DC SBDEO's ambitious vision.

Among all DC residents, there are sizable gaps in digital literacy and skills, adoption, and device access:

- **Digital literacy and skills gaps:** Approximately 11% of survey respondents—which could translate to approximately 80K DC residents—don't feel confident in their skills for completing basic online activities using computers. Even more survey respondents do not feel confident in navigating the internet with regards to safeguarding their privacy online or avoiding cybersecurity pitfalls, with 19% of survey respondents indicating they do not feel confident in adjusting their privacy settings on social media, and 13% indicating they do not confident in recognizing and avoiding scams.
  A significant barrier to improved digital literacy rates may be that DC's digital learning programs lack sufficient capacity and are not accessible enough to meet the population's needs.[6] Of survey respondents with household income under $30K, 25% don't feel confident in their ability to find or apply for jobs, and 22% don't feel confident in their ability to pay bills or access online banking/financial services using computers.

  Broadband adoption gaps: According to the 2021 American Community Survey, approximately 88,000 DC residents in about 39,000 households (23 percent) do not have broadband subscriptions.[7] Survey results show that high prices for high-speed internet services that do not fit into a monthly budget are a significant barrier to raising the number of households with broadband subscriptions.
  As a percentage of the total population, DC has more racial and ethnic minorities and people with income below 150 percent of the federal poverty line than the US does overall. Many of these covered populations are concentrated in Wards 5, 7, and 8.[8] Every covered population in DC, except veterans, has lower broadband adoption rates than those who are not in that population.

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[6] TechTogether DC 2021 analysis of digital skills training capacity by ward
[7] Assumes a household size of 2.25 people
[8] 2021 American Community Survey 5-year estimates

- **Device access gaps:** Only 83 percent of DC residents have access to an internet-connected device such as a desktop or laptop. In some areas of the District, this number is as low as 61 percent.[9] Respondents with income below $30K and Black or African American respondents are less likely than peers to indicate having enough access to internet-connected devices in their household. Only 37 percent of respondents with income below $30K and 45 percent of Black or African American respondents strongly report having enough access to devices in their household, while 49 percent of all survey respondents report having enough access to such devices.

DC has one of the country's highest rates of adoption – 50 percent – of the FCC's Affordable Connectivity Program (ACP), but much work remains to get all eligible recipients enrolled in ACP.

- **ACP enrollment**: Approximately 105,000 DC households qualify for the federal ACP,[10] but only about 53,000 (50 percent of those eligible) are currently enrolled.[11] The program is not widely known, which creates a barrier to higher enrollment.
- **Affordability**: For 11.9 percent of DC households – about 37,000 – a $30-per-month plan exceeds the affordability threshold set by the National Governor's Association.[12]

DC is actively and strategically engaging stakeholders to ensure that it hears their needs, perspectives, and aspirations. DC is enacting a transparent, inclusive plan for stakeholder engagement designed for full geographic coverage, meaningful engagement and outreach to diverse groups, and the use of multiple mechanisms for awareness and participation, with specific outreach to and direct engagement of historically underrepresented and marginalized groups and/or communities. The feedback gathered in this effort is critical to ensuring that the SBDEO's planning can meet the needs of the residents it seeks to serve.

Implementation. To progress towards achieving its vision, the DC SBDEO has developed an implementation plan that includes four core activities:

1. **DC SBDEO-led programming.** The SBDEO will lead select programs to foster digital equity. This effort will involve continuing and potentially expanding ongoing SBDEO programs (e.g., Tech 101 workshops, ACP outreach, and digital navigators)

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[9] 2021 American Community Survey 5-year estimates

[10] The Affordable Connectivity Program of the Federal Communications Commission provides discounts to ensure that eligible households can afford the broadband they need. It is the largest broadband affordability program in the nation's history.

[11] https://www.educationsuperhighway.org/no-home-left-offline/acp-data/#dashboard

[12] 2021 American Community Survey 5-year Estimates; https://www.nga.org/publications/broadband-affordability-resources/

or creating new programs (e.g., DC Digital Navigators). Some of these initiatives may involve collaborating with other DC government agencies (e.g., workforce agencies, health-focused agencies, and universities).

2. **DC digital equity grant program.** DC has many digital equity programs that are making an impact, as well as clear opportunities for innovation in creating new programming. A DC digital equity grant program can help scale existing programs and establish new programming to drive digital equity for residents who need it most. Such a program could be a vehicle for co-investment in programs that demonstrate results in digital learning, adoption, and improving online privacy, cybersecurity, accessibility, and inclusivity. Along with community engagement and feedback, measurable impact and outcomes, sustainable program design and management, and matching funds, core assessment criteria will be used to ensure that digital equity funds are invested in effective and sustainable ways.
3. **Public-private partnerships.** The digital divide cannot be closed without engaging a range of stakeholders. Such engagement may include collaboration between public-private and philanthropic organizations to execute sustainable, potentially transformative efforts that foster digital equity (e.g., a DC tech hub, omni-channel tech support, a break/fix ecosystem, and device-loan and distribution programs).
4. **Ongoing stakeholder engagement**. Feedback from stakeholders is critical to designing, executing, refining, and improving an effective digital equity program. Such feedback must first be gathered from the residents whom the SBDEO seeks to enable, especially covered populations. Resident groups, non-profits, community organizations, government agencies, internet service providers (ISPs), private businesses, and academic institutions that focus on digital equity should also be engaged and may become partners in this important work.

This work cannot be executed and sustained without partnership and co-investment by a coalition of organizations from the public, private, and non-profit sectors. In the words of DC Mayor Muriel Bowser, "Every district agency is responsible for helping us build a more equitable DC." In this document, the DC State Broadband and Digital Equity Office aspires to meet Mayor Bowser's charge and to make a difference for the residents of the District of Columbia.

2 Introduction and Vision for Digital Equity

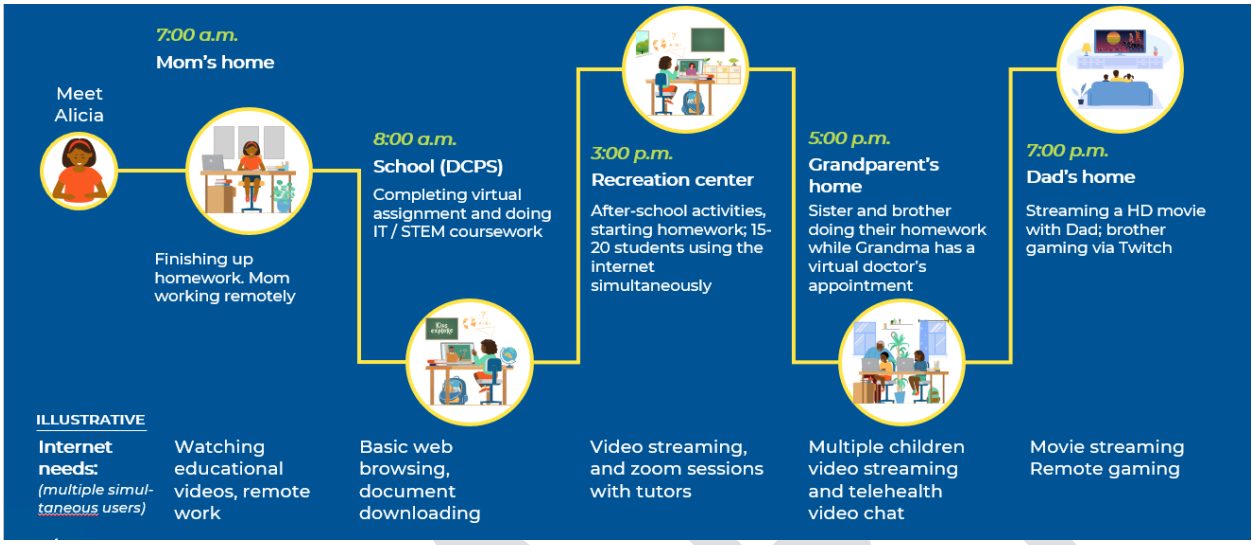
This section defines the District's overall vision, strategy, and objectives for digital equity. In addition, the following sections outline how existing plans align with this digital equity plan as well as ways in which measurable digital equity objectives can interact with other outcomes.

2.1 Vision

The DC State Broadband and Digital Equity Office (SBDEO) is working toward a vision for DC in which every resident, every business, in every corner of DC can live, work, and thrive in the digital age – without bias or barriers.

To realize this vision, the DC SBDEO works to ensure that every DC resident and business has access to affordable, high-speed internet in their homes, and in their local Community Anchor Institutions. It also works to ensure that every DC resident has the skills to effectively use internet access devices, and to be both productive and safe online. The Office works to enable residents to gain this connectivity and these skills, both in their daily life journeys, and in their journeys over time. This includes journeys of younger residents like "Alicia," who uses the internet throughout the day at the homes of her parents, grandparents, school and at an after-school recreation center (Figure 3).

Figure 3. "Alicia's" typical daily journey online

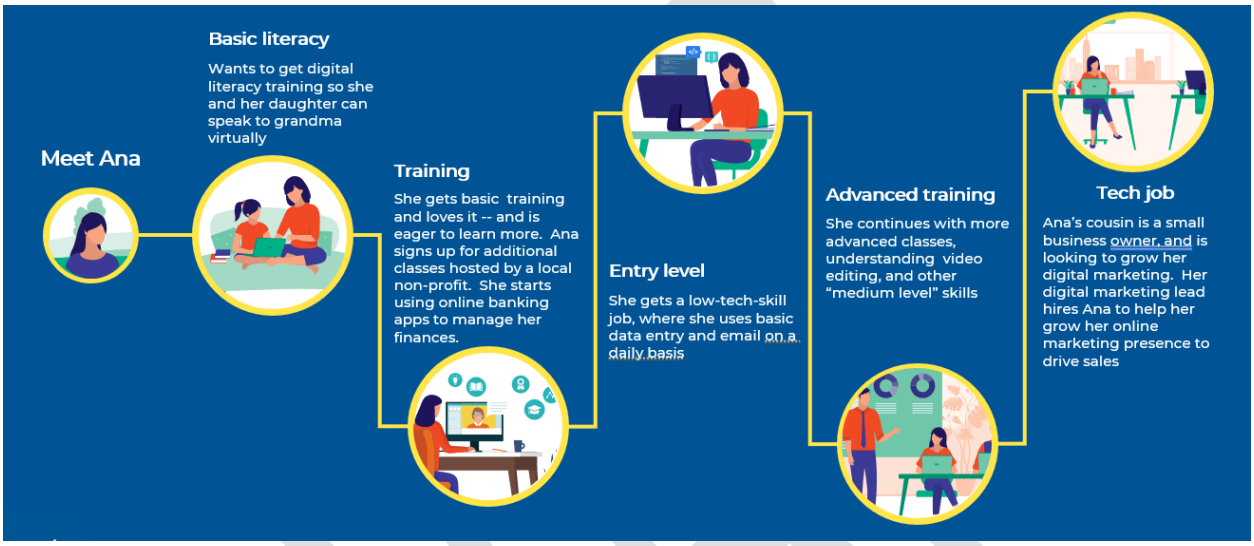


Another archetypal resident is "Darryl," who is getting a new device and needs assistance to set it up, to grow his skills, and to access public services. Later, Darryl needs support troubleshooting and replacing a device that has malfunctioned (Figure 4).

Figure 4. "Darryl's" journey with devices and tech support, over time

Another archetypal resident is "Ana," who starts out learning basic digital literacy skills so she can help her daughter with her schoolwork. Ana discovers a passion for technology, so she gets training that begins with entry level skills, and takes her through to advanced training, enabling her to get a job in the high-tech sector (Figure 5).

Figure 5. "Ana's" journey, from basic digital literacy to a career in technology



The DC SBDEO seeks to enable and serve all residents on all their digital journeys, enabling them to thrive in the digital age and unlock the benefits of participation in the digital ecosystem. Support for residents on their journeys, and the "unlocks" and impacts to critical life outcomes are a component of what success looks like for DC as it drives toward digital equity.

2.2 Alignment with Existing Efforts to Improve Outcomes

This section discusses how stated objectives for digital equity will impact and interact with DC's broader efforts and goals. Table 1 details the plans and reports released by other DC state agencies that have overlapping digital equity priorities. For each plan, the digital equity-specific goal is provided, along with the agency's overall goal. The agencies' missions involve economic and workforce development, education, health, civic and social engagement, and delivery of other essential services – all of which are enabled by high-speed internet access.

Table 1. Details of other District priorities related to broadband

Agency	Plan/report name (and link)	Broadband-related, broadband-enabled, and digital equity priorities
Office of the Deputy Mayor for Planning and Economic Development (DMPED)	2023-2027 Economic Development Strategy	**Vision:** • To be a city where every neighborhood offers its residents, of all races and genders, the chance to achieve their full potential • An urban center that is a destination of choice for innovators, job creators, and visitors. • A place where people choose to live, work, visit, and thrive. **Overall goals enhanced by digital equity:** • **Build vibrant neighborhoods** that have all the ingredients for residents to thrive by making strategic investments in assets and amenities (such as broadband, grocery/dining, affordable housing, transit, green space/recreation). • **Build education to workforce pathways** through quality education, employment and skills training that will allow all residents – particularly Black and Hispanic residents – to access quality jobs. • **Expand access to family and wellbeing supports** such as childcare, mental health, safety, and homeless prevention services that enable residents to fully participate in the District's vibrant economy. **Digital equity specific goal**: Eliminate key amenity gaps across all neighborhoods and increase access to opportunity for residents: By 2028, ensure that all DC residents have equitable access to affordable, high-speed, and reliable internet service, and are empowered with the devices, tech support, and digital literacy and skills to use it effectively.

Agency	Plan/report name (and link)	Broadband-related, broadband-enabled, and digital equity priorities
Department of Small and Local Business Development (DSLBD)	DSLBD Performance Initiatives	**Overall goal:** Extend economic development to District neighborhoods through commercial revitalization initiatives and programs. **Digital equity specific goal**: Initiative 3.3: Enhance class curriculum to incorporate current business internet trends: DSLBD created a training session that teaches businesses how to market their products through online social networking sites. The class also highlighted the need for business email addresses and websites. Initiative 3.4: Extend services to provide distance learning opportunities.
Office of the Mayor	FY24 Budget	**Overall goal:** Strengthening services focusing on crime reduction and prosperity for residents through life changing education and workforce opportunities. **Digital equity specific goal**: Appropriates $34 million over 6 years to DC Public Schools to improve information technology systems within schools, to improve bandwidth and connectivity, complete refreshment of smart board technology systems in classrooms [in FY 24], and upgrade school data interfaces for families.
Office of Racial Equity	Racial Equity Action Plan	**Overall goal:** To put racial equity at the forefront of the post- Covid recovery, to rebuild in ways that give everyone a fair shot to flourish in DC. **Digital equity specific goal**: Identify 'racial equity indicators' that measure progress toward a more racially equitable DC. These indicators include broadband access, measured by the percentage of homes with a broadband internet subscription.

Agency	Plan/report name (and link)	Broadband-related, broadband-enabled, and digital equity priorities
Office of the Mayor	Fiscal Year 2024 Budget	**Overall goal:** Investing in our residents, families, and neighborhoods to help residents grow their incomes and increase equity. **Digital equity specific goal**: Various plans designed to support seniors, including $340,500 to distribute tablet devices to them.
Office of the Deputy Mayor for Planning and Economic Development	Innovation Districts	**Overall goal:** Drive DC's comeback, the downtown recovery, and long-term economic growth by maximizing investments to help us grow our population, our jobs, and our tax base. **Digital equity specific goal**: The District is making a $5 million investment to create the world's destination for uniting digital technology with public policy, equity, and social impact.
DC Department of Employment Services	Grant to Improve Unemployment Insurance System and Equity Access to DC Workers	**Overall goal:** Addressing equity and improving the District's unemployment insurance system, enhance language access for all claimants, and better assist District workers in their ability to support themselves and their families. **Digital equity specific goal**: One focus of this $2.28 million grant will be to reach communities that experience barriers to online access by bridging the digital divide.
Office of Work Opportunity (Department of Human Services)	Job Clubs	**Overall goal:** Offer intensive and interactive instructional experiences and activities related to employment. **Digital equity specific goal**: Services provided include access to the internet to remove digital accessibility as a barrier.
DC Homeland Security	Homeland Security Strategic Plan, Initiative 2.6.3	**Overall goal:** Promote job readiness through intensive and interactive instructional experiences and activities related to employment. **Digital equity specific goal**: Strengthen communication capabilities by deploying a wireless broadband public safety network throughout the National Capital Region.

Agency	Plan/report name (and link)	Broadband-related, broadband-enabled, and digital equity priorities
Public Service Commission District of Columbia	Lifeline Program	**Overall goal:** Ensure the safety, reliability, and sustainability of the District's utility distribution systems. **Digital equity specific goal**: Make telephone and broadband services more affordable for low-income consumers.
Office of Deputy Mayor for Health & Human Services	Age-Friendly DC 2023 Strategic Plan	**Overall goal:** To keep older residents connected to their community, friends, and family. **Digital equity specific goal**: 1) Identify & promote technology training opportunities available to DC seniors. 2) Assist in the obtainment of full- and part-time work opportunities by enabling technical assistance (training)

2.3 Strategy and Objectives

To chart a path to achieving the vision, the DC State Broadband and Digital Equity Office has defined three goals, and multiple measurable objectives, which will guide its actions and investments. These include:

	Goal	Relevant requirement addressed from the NOFO (pages 20-22).
1	**Make high-quality, affordable, high-speed internet accessible to all residents of DC, in their homes and local community anchors**; and drive equitable adoption of internet service.	The **availability of, and affordability of access** to, fixed and wireless broadband technology
2	**Provide sustainable, low-cost, or no-cost devices and IT-support and enabling applications to the residents who need it most.**	The **availability and affordability of consumer devices** and technical support for those devices.
3	**Create navigable pathways for DC residents across the spectrum of digital literacy and digital skills.** These pathways and programs will be accessible to all, and will focus on elements including online privacy, cybersecurity, accessibility, and inclusivity.	• The **online accessibility and inclusivity** of public resources and services • **Digital literacy**; • Awareness of, and the use of, measures to secure the **online privacy of, and cybersecurity** with respect to, an individual
4	**Leverage increased access to broadband, devices and digital skills in strategic partnerships and initiatives with DC agencies** to affect economic development and workforce goals, health outcomes.	The **online accessibility and inclusivity** of public resources and services

The measurable objectives that DC will use to measure our progress toward these goals are summarized in Table 2.

Table 2. Goals, objectives, and strategies for broadband deployment and digital equity

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
1. Make high-quality, high-speed internet accessible to all residents of DC, and drive adoption	**1A. Infrastructure:** achieve universal (100%) availability of 100/20 Mbps in DC households.	*# of unserved broadband serviceable locations (BSLs)*[13]	184 BSLs[14] unserved	90 BSLs unserved	0 unserved
		# of underserved BSLs	30 BSLs[15] underserved	15 BSLs underserved	0 underserved
		# of unserved units	590 unserved units[16]	300 unserved units	0 unserved
		# of underserved units	32 underserved units[17]	15 underserved units	0 underserved
			1A Strategies: • Execute a competitive grant program to expand broadband access, and which offers service provider subsides which are required to make the provider business case positive. • Where required, subsidize deployment of Wi-Fi infrastructure in MDUs, assuring that multiple ISPs can have access so that residents have options. • Community Internet Program: Allow internet service providers (ISP) free access to the roofs of DC-owned buildings ISPs to provide high-speed connections (200 Mbps upload / 200 Mbps download or higher) at reduced or no cost to households eligible		

[13] Locations where mass-market broadband service can be installed.
[14] FCC National Broadband map, data as of Dec 31, 2022
[15] Ibid.
[16] Ibid.
[17] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
			for the Affordable Connectivity Program (ACP). These antennas will serve as neighborhood hubs that will feed internet to residential properties – all at no cost to DC		
	1B. Increase internet access among community anchor institutions (CAIs)[18].	*# of Community Anchor Institutions with access to at least 1gigabit symmetrical service*	~1,818 CAIs	900 CAIs	0
			1B Strategies • Expand the footprint of DC-Net to reach DC CAIs that serve Wards 5, 7 and 8, which are the areas of DC with the greatest broadband needs and gaps.		
	1C. Adoption: get to 95 percent equitable adoption of high-speed internet.	*% adoption District-wide*[19]	77%[20]	85%	95%
			1C Strategies • Execute targeted adoption drives with trusted community partners that focus on each priority population. • Conduct a digital equity grant program to co-invest in top programs that demonstrate results in digital learning, adoption and improving online privacy, cybersecurity, accessibility and inclusivity		

[18] Schools, libraries, medical facilities, et. al., likely to subscribe to enterprise-grade internet service.
[19] 2021 American Community Survey 5-Year estimates
[20] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
			• (potential) Expand funding for DC Navigators in DC, in partnership with local stakeholders. • Mobilize community organizations to increase broadband adoption • Expand the TechTogether DC partnership between the DC government, non-profit community, academia, and industry to continue to make progress in closing the digital divide through access, training, and opportunity		
	1D. Increase adoption among covered populations.	*% adoption rate among racial and ethnic minorities*	Black: 64% Hispanic: 74% Asian: 78%[21]	80% 90% 85%	95% 95% 95%
		% adoption among households below 150% of the federal poverty level (FPL)	58%[22]	85%	95%
		% adoption for aging individuals	64%[23]	74%	95%
		% adoption for individuals with disabilities	54%[24]	75%	95%

[21] 2021 American Community Survey 5-Year estimates
[22] Ibid.
[23] Ibid.
[24] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
		% adoption for individuals with language barrier	56%[25]	75%	95%
		% adoption for veterans	71%[26]	85%	95%
			1D Strategies • Execute targeted adoption drives with trusted community partners that focus on each priority population. • Conduct a digital equity grant program to co-invest in top programs that demonstrate results in digital learning, adoption and improving online privacy, cybersecurity, accessibility and inclusivity • (potential) Expand funding for DC Navigators in DC, in partnership with local stakeholders. • Mobilize community organizations to increase broadband adoption • Expand the TechTogether DC partnership between the DC government, non-profit community, academia, and industry to continue to make progress in closing the digital divide through access, training, and opportunity		
		% Adoption in Ward 5	73%[27]	84%	95%
		% adoption in Ward 7	63%[28]	79%	95%

[25] Ibid.
[26] Ibid.
[27] Ibid.
[28] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
	1E. Increase adoption in high priority wards (5, 7, 8).	*% adoption in Ward 8*	61%[29]	78%	95%
			1E Strategies • Execute targeted adoption drives with trusted community partners that focus on each priority population. • Conduct a digital equity grant program to co-invest in top programs that demonstrate results in digital learning and adoption. • (potential) Expand funding for DC Navigators in DC, in partnership with local stakeholders. • Mobilize community organizations to increase broadband adoption • Expand the TechTogether DC partnership between the DC government, non-profit community, academia, and industry to continue to make progress in closing the digital divide through access, training, and opportunity		
	1F. Affordability: ensure no DC resident needs to pay more than 2 percent of gross income per month for high-speed internet.	*% BSLs with access to at least 1 affordable internet plan (less than $30/month) for reliable broadband*	61%	76%	100%
			1F Strategies		

[29] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
			• In addition to ACP drives, identify key areas of the District where CAI connectivity is needed to support residents facing deep affordability challenges, and determine custom approaches to support the community with broadband access.		
	1G. Increase uptake of Affordable Connectivity Program (ACP)[30].	*% ACP-eligible DC residents who are enrolled*	49%[31]	65%	80%
			1G Strategies: • Execute targeted adoption drives, and an ACP knowledge campaign, with trusted community partners that focus on each priority population.		
2. Provide sustainable, low-cost, or no-cost devices and IT-support and / or software to under-served residents.	**2A. Technology distribution**: effectively communicate the value of a connected device to all DC residents and ensure all have access to [32] one.	*% device access*	83%[33]	90%	100%
			2A Strategies:		

[30] The Affordable Connectivity Program of the Federal Communications Commission provides discounts to ensure that eligible households can afford the broadband they need. It is the largest broadband affordability program in the nation's history.
[31] https://www.educationsuperhighway.org/no-home-left-offline/acp-data/#dashboard
[32] To be measured via survey
[33] 2021 American Community Survey 5-Year Estimates

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
			• (potential) Expand funding for DC Navigators in DC, in partnership with local stakeholders. • Continue / grow device distribution programs with DC Public Library, DACL and device loaner programs • Partner with pledge partner companies and non-profits (e.g., PCs for People) to scale up device distribution efforts		
	2B. Increase device access among covered populations.[34]	*% device access among racial and ethnic minorities*	Black: 77% Hispanic: 85% Asian: 86%[35]	85% 90% 90%	95% 95% 95%
		% device access among households below 150% of the federal poverty level (FPL)	70%[36]	85%	95%
		% device access for aging individuals	74%[37]	85%	95%
		% device access for individuals with disabilities	64%[38]	80%	95%

[34] To be measured via survey
[35] 2021 American Community Survey 5-Year estimates
[36] Ibid.
[37] Ibid.
[38] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
		% device access for individuals with language barrier	72%[39]	85%	95%
		% device access for veterans	78%[40]	85%	95%
		% device access for incarcerated individuals	*TBD*	*+10%*	*+20%*
			2B Strategies • Execute targeted device provision drives with trusted community partners that focus on each priority population. • Partner with pledge partner companies and non-profits (e.g., PCs for People) to scale up device distribution efforts • Conduct a digital equity grant program to co-invest in top programs that demonstrate results in device distribution and device loaner programs		
	2C. Omni-channel tech support and break / fix ecosystem: stand up a responsive, omni-channel customer service center that serves as a one-stop shop for all residents. Establish a mature	*# of DC residents who receive free tech support*	To be updated with survey feedback	To be updated with survey feedback	25,000

[39] Ibid.
[40] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
	ecosystem in DC for affordable tech repair and refurbishing services.				
			2C Strategies: • Partner with local private companies to pilot an expanded Digital Navigators program, which has an on-the-ground presence to support break/fix in targeted areas of DC (areas most in need). • In partnership with pledge partners, create a cohort of DC Digital Navigators, which includes select locations where there will be drop-off and in-person break-fix support • Collaborate with government agencies and local vendors to stand up a subsidized customer service center for all residents		
	2D. Resident satisfaction: ensure residents feel confident using connected devices and getting the troubleshooting support they need.	*% of DC residents who express satisfaction with device distribution and tech support (survey results)*	To be updated with survey feedback	To be updated with survey feedback	80%
			2D Strategies: • (potential) Expand funding for DC Navigators in DC, in partnership with local stakeholders • Assess resident satisfaction through a periodic survey • Support trusted partners to develop and scale digital literacy and skills programming in high-priority areas across the district		

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
3.Create navigable pathways for DC residents across the spectrum of digital literacy and digital skills	**3A. Digital literacy:** enable all residents to be proficient and safe when navigating information and communication technologies.	*DC residents ages 16-to-65 lacking digital literacy*	~65,000 – 75,000[41]	45,000 – 50,000	<20,000
		DC residents trained in digital literacy <65 years old	To be updated with survey feedback	+10%	+20%
		% confidence in digital skills among racial and ethnic minorities	Black: 90%[42] Hispanic: To be updated with survey feedback Asian: To be updated with survey feedback	92% To be updated with survey feedback To be updated with survey feedback	95% To be updated with survey feedback To be updated with survey feedback
		% confidence in digital skills among households with income below $30K	88%[43]	92%	95%
		% confidence in digital skills among aging individuals	89%[44]	92%	95%
		% confidence in digital skills among	*To be updated with survey feedback*[45]	*+10%*	*+20%*

[41] https://nces.ed.gov/pubs2018/2018161.pdf
[42] 2023 District of Columbia Broadband Access and Digital Equity Survey, varies by type of digital skill (inc
[43] Ibid. Households with income below $30K used since survey data does not provide detail on households below 150 percent of FPL.
[44] Ibid.
[45] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
		individuals with disabilities			
		% confidence in digital skills among individuals with language barrier	*To be updated with survey feedback* [46]	*+10%*	*+20%*
		% confidence in digital skills among veterans	*To be updated with survey feedback* [47]	*+10%*	*+20%*
		% confidence in digital skills among incarcerated individuals	*To be updated with survey feedback* [48]	*+10%*	*+20%*
			3A Strategies: • (potential) Expand funding for DC Navigators, in partnership with local stakeholders • Partner with digital equity practitioners in the District to create an online tool that maps all available programming, skills developed, and how to access them • Conduct a digital equity grant program to co-invest in top programs that demonstrate results in digital learning, adoption and improving online privacy, cybersecurity, accessibility, and inclusivity.		

[46] Ibid.
[47] Ibid.
[48] Ibid.

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
	3B. Digital skills for learning and employment: enable DC to use technology to improve learning, and the ability to access the tools and jobs of the digital economy.	*# of jobs acquired post training*	To be updated with survey feedback	To be updated with survey feedback	2,000
			3B Strategies: • Partner with the private sector to expand workforce development programs focused on digital skills, and link them to the feeder core digital literacy programs from which talent can be pulled and developed		
	3C. Improving wellbeing: track resident feedback and work toward increases in well-being, connectedness, and use of digital tools and apps for quality of life (e.g., eHealth, social connections).	*# of DC residents receiving public health insurance who have used telehealth*	To be updated with survey feedback	1.1x improvement (10%)	1.2x improvement (20%)
		# of DC residents who have used digital channel for at least one government service	To be updated with survey feedback	1.1x improvement (10%)	1.2x improvement (20%)
			3C Strategies: • Conduct a digital equity grant program to co-invest in top programs that demonstrate results in increasing well-being and health access		

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
			• Assess resident satisfaction and perspectives on well-being through a periodic survey • Continue to host Tech 101 workshops, which provide free technology workshops to residents who want to build the types of basic skills needed to be successful in a digitally connected world. The goal is to help residents navigate the digital landscape and make technology relevant in their daily lives. These classes help establish a solid technology foundation for residents who may be interested in more advanced digital literacy classes in the future • DC Tech Locator: Allow residents to find public computer access, free Wi-Fi, and technology training locations in DC		
4. Leverage increased access to broadband, devices and digital skills in strategic partnerships and initiatives with DC agencies to affect economic development and workforce goals, health outcomes.	**4A. Education:** All students are prepared for 21st century economy and academic success, including access to a device and broadband at home	*% students with broadband at home*	To be updated with survey feedback	To be updated with survey feedback	100%
		% students with a device at home	To be updated with survey feedback	To be updated with survey feedback	100%
			4A Strategies • Develop a centralized asset map detailing all broadband-related resources, state-sponsored programs, and digital skills trainings available to students and families, which improve the online accessibility and inclusivity of public resources and services. • Partner with the DC Public Schools and other related entities to promote digital skills competencies among K-12 students		

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
	4B. Healthcare: The use of telehealth increases, resulting in overall higher access to care and wider healthcare options	*% population that uses telehealth*	To be updated with survey feedback	1.1x improvement (10%)	1.2x improvement (20%)
		% population satisfied with telehealth	To be updated with survey feedback	1.1x improvement (10%)	1.2x improvement (20%)
			4B Strategies • Provide support to partner organizations and grantees to develop digital literacy programs that provide information and educate residents on tools designed for digital health, which improve the online accessibility and inclusivity of public resources and services. • Provide in-home and public use devices and broadband service to enable access to telehealth appointments and other healthcare related services		
	4C. Delivery of **essential services:** Sign-ups for key social services (e.g., SNAP, TANF/Cash Assistance and Medical Benefits) go up due to ease of access via internet	*# of monthly visitors to District Direct*	To be updated with survey feedback	1.1x improvement (10%)	1.2x improvement (20%)
		% eligible DC residents signed up for key social services	To be updated with survey feedback	1.1x improvement (10%)	1.2x improvement (20%)
			4C Strategies • Analyze webservices available throughout the state and create a resource bank of offerings available from the state for enrollment into assistance programs relating to workforce, education, healthcare access, and general civic engagement, which improve		

Goal	Objective	KPI	Baseline	2025 target (short term goal)	2028 target (long term goal)
			the online accessibility and inclusivity of public resources and services. • Partner with the Workforce Investment Council to promote the use of their existing 'My Journey DC' online platform to promote the awareness and utilization of supportive services, which improve the online accessibility and inclusivity of public resources and services.		

3 Current State of Digital Equity: Barriers and Assets

3.1 Asset Inventory

The following sections describe the District's existing digital equity assets, including digital inclusion assets by covered population, existing digital equity plans, existing digital equity programs, broadband adoption assets, and broadband affordability assets.

3.1.1 Digital Inclusion Assets by Covered Population

Assets described in the below table include:

1. Civic and volunteer organizations that provide volunteer and advocacy assistance for digital equity programs

2. Technical assistance to support digital inclusion
3. Workforce development training and employment services
4. Public Wi-Fi, networks, and access points

Table 3: Digital equity assets in DC that can be leveraged in the deployment of federal BEAD and Digital Equity Act funding

Asset type	Organization name(s)[49]	Asset name with link to asset[50]	Description	Covered population served
1. Civic and volunteer organizations that provide volunteer and advocacy assistance for digital equity programs	Multicultural Media, Telecom & Internet Council	MMTC Letters	Focuses on equal access broadband connectivity, adoption, and affordability, as well as education and jobs, digital skills training, and business opportunities.	All
	United Way of the National Capital Area	Analyzing Digital Equity in Cities Around the U.S.	The United Way of the National Capital Area seeks to improve the lives of underserved individuals in the national capital area by focusing community resources on creating measurable and lasting impacts. Its report shows digital equity scores across the U.S., including DC	All
2. Technical assistance to support digital inclusion	DC Public Library	Computer classes	Adult Learning Department at DC Public Library has computer classes available (e.g., Microsoft Office software, Google suite, basic design with Canva)	All
3. Workforce development training and employment services	Community College Prep Academy Adult Public Charter School	Community College Prep Academy Adult Public Charter School Classes	The Academy offers classes in administrative tech, data analytics and IT.	All
	Multicultural Media, Telecom &	Jumpstart Your Tech Career Guide	A guide to success at landing the right job in the tech sector, specifically including	All

[49] Organization who owns or manages the described asset
[50] Links provide either further information on asset or direct to organization providing access depending on what is available online

	Internet Council		broadband, information technology, and communication. Focuses on mission of equal access within the industry.	
	Clearly Innovative	Adult and Youth Tech Education Programs	Clearly Innovation Education hosts workshops and classes for entrepreneurs, and tech innovators, and for youth. Classes for adults range from essential knowledge and tools needed to launch and grow a successful business, to immersive coding courses and hackathons. The youth program for elementary, middle, and high school students teaches what it takes to become a designer, developer, or entrepreneur by solving community issues through technical and entrepreneurial skills. The programs expose students to all facets of technology including lean startup principles, user experience, software development and product management.	All
	Connected DMV	NEXTversity	NEXTversity offers personalized assistance such as financial literacy and budgeting, technology needs, and family supports to help students thrive.	All
	Connected DMV	Quantum Academy	K-12 work-based and experiential learning opportunities related to quantum computing and communication, as well as stackable quantum basics courses.	All
	Department of Small and Local Business Development (DSLBD)	Initiative 3.3: Enhance class curriculum to incorporate current business	This training session teaches businesses how to market their products through online social networking sites. The class focuses on providing	All

		internet trends (FY10)	low-cost alternatives to marketing and client relationship management. The class also highlights the need for business email addresses and websites.	
	Department of Employment Services (DOES)	Economic and Workforce Development Goals (2015)	Through the District's American Job Center, residents can use resources such as career planning and counseling, resume assistance, direct job placement, on-the-job-training, and computer training. Residents can also access more advanced technical training, including Microsoft, A+, and Cisco certifications.	All
	Office on Returning Citizen Affairs / DC-BETA / Connect.DC	Tech skills for returning citizens (2015)	Under the DC-BETA project, the District's Office on Returning Citizen Affairs (ORCA) worked with Byte Back and Connect.DC to provide District residents returning from incarceration with technology skills that would help them secure employment and increase their chances of successfully integrating back into their communities.	Justice impacted individuals
	University of the District of Columbia and Howard University	Health Data Management Training	This program aims to solve US public health data infrastructure issues by training a new tech-savvy cohort specifically in health data management. The goal is to improve health communications for the District's predominantly Black communities, which were most affected by COVID and which often suffer from poor public health responses.	Racial or ethnic minority groups

	Office of the Deputy Mayor for Planning and Economic Development / Microsoft / Department of Employment Services (DOES)	Strategic Digital Alliance	DOES will identify candidates with gaps in digital literacy, and close them by exposing these residents to digital basics through Microsoft's Digital Literacy Curriculum. DOES and Microsoft will also provide residents with training on Microsoft productivity software. Microsoft will also provide significant partner support and engagement as well as $100,000 for business-development to 10 local Certified Business Enterprises (CBEs)[3].	All
	Office of the Deputy Mayor for Planning and Economic Development / Microsoft / DC Public Schools	Strategic Digital Alliance	For educators, the District will work with Microsoft to implement and host the Microsoft Innovative Educator (MIE) Program, a two-day seminar focused on integrating technology into classroom teaching and learning scenarios. Participants will also gain exposure to the growing career opportunities in STEM fields as part of the alliance.	All
Open access middle-mile networks	DC-NET	DC-CAN	Interested last-mile service providers can partner with the District government to bring affordable broadband to residents and businesses in the District.	All
Public Wi-Fi, networks, and access points	DC-NET	DC-NET Public Wi-Fi	DC residents and visitors can enjoy free Wi-Fi access via outdoor hotspots throughout the District at key community anchor locations, including DC public schools and public charter schools, public libraries, parks and recreation centers, senior	All

			centers, community pools, community health clinics, social service sites, public housing campuses, public safety sites, and District government administration buildings.	
	DC-NET	DC Wi-Fi hotspot map	DC provides a map of free Wi-Fi access points.	All
	DC Public Library	Internet and Wireless Use Policy (2013)	The District of Columbia Library offers library computers for customer Internet access and wireless Internet access for customers using their personal devices, including a limited number of public computers with Internet access especially for children.	All
	DC Office of the Chief Technology Officer	Community Internet Program	The Community Internet Program (CIP) allows any ISP free access to the roofs of DC-owned buildings, operated by the Department of General Services, to install service antennas if the ISP commits to providing resident connectivity with high-speed connections (200 Mbps upload / 200 Mbps download or higher) at reduced or no cost to households eligible for the Affordable Connectivity Program.	Low-income households

3.1.2 Existing Digital Equity Plans

The plans detailed in Table 4 are publicly available agency, municipality, or regional government plans that have been published that specifically focus on digital equity and broadband deployment in DC.

*Table 4. D*igital equity plans and programs instituted by municipalities in DC.

Organization name(2)	Plan/report name (and link)	Description
Office of the Mayor, Innovation & Technology Inclusion Council	District of Columbia Technology Inclusion Strategy *published in 2016*	This report lays out three goals for DC technology inclusion: 1. Create 5,000 new tech jobs for underrepresented workers. 2. Create 500 new tech businesses founded by underrepresented entrepreneurs. 3. Foster the most inclusive culture among tech ecosystems on the east coast. To achieve these goals, the District created a 4-part technology inclusion scorecard that includes innovative infrastructure, employment, education, and entrepreneurship
Connect.DC	Building the Bridge: A Report on the State of the Digital Divide in the District of Columbia *published in 2015*	This report, funded by the State Broadband Initiative grant, describes the state of the digital divide in the District of Columbia and shows the breadth of digital inclusion initiatives in the city. It also lays out five strategies for increasing broadband adoption and use. The strategies include: • Increase public education and awareness efforts. • Expand digital literacy and advanced training programs. • Increase technology use by generating local content. • Increase public technology resources for residents and community organizations. • Expand access to affordable home internet and computer hardware.
Connect.DC	Connected Communities Initiative Community Technology Plan Benning Ridge Marshall Heights (Ward 7) published in 2015	The Connected Communities Initiative (CCI) aims to increase Internet access and use by residents in low- and moderate-income neighborhoods in the District of Columbia. This plan aims to leverage the five strategies for increasing broadband adoption and use described in the "Building the Bridge report." These strategies include: • Engage community stakeholders about their barriers to technology.

		• Develop community technology plans for each digital footprint with actionable digital inclusion strategies • Make technology relevant to the lives of residents and create interactive projects that demonstrate tangible ways to use it • Increase home broadband access and technology use in each neighborhood.
Connect.DC	Connected Communities Initiative Community Technology Plan Barry Farm Hillsdale Historic Anacostia (Ward 8) published in 2015	The Connected Communities Initiative (CCI) aims to increase Internet access and use by residents in low- and moderate-income neighborhoods in the District of Columbia. This plan aims to leverage the five strategies for increasing broadband adoption and use described in the "Building the Bridge report." These strategies include: • Engage community stakeholders about their barriers to technology. • Develop community technology plans for each digital footprint with actionable digital inclusion strategies • Make technology relevant to the lives of residents and create interactive projects that demonstrate tangible ways to use it • Increase home broadband access and technology use in each neighborhood.

3.1.3 Existing Digital Equity Programs

Table 5 focuses on focused on broadband expansion and digital equity efforts in DC. This highlights the importance of governments and community anchor institutions in the promotion of digital equity for covered populations across DC.

Table 5. Existing digital equity programs across DC that have been instituted by municipalities, regions, and local organizations

Organization name(s)	Asset name with link to asset	Description	Covered population served
Digital Equity in DC Education	Digital Equity in DC Education	A District-wide coalition of parents advocating for reliable technology access for all students in DC public schools.	All
DC Digital Equity Coalition	Guiding Principles to Ensure Equitable Distribution of Resources	The coalition is committed to working with the DC Government to ensure that everyone in the District has access to the internet, appropriate technology devices, and digital literacy training necessary to thrive in today's world. The coalition has developed guiding principles to guide the District of Columbia Government Office of the Chief Technology Officer in developing and implementing its Digital Equity Plan.	All
Byte Back	Byte Back Volunteers	Volunteers play a critical role in bringing to life Byte Back's mission of closing the digital divide. Positions include career assistance, workshop presenters, tutors, success coaches, and board members.	All
Office of the City Administrator	Office of Racial Equity creation	Focuses on developing an infrastructure to ensure policy decisions and District programs are evaluated through a racial equity lens.	All

3.1.4 Broadband Adoption

Table 6 below includes DC assets for broadband adoption. Assets described in the below table include:

1. Computer refurbishing programs.
2. Digital Navigator programs.
3. P-20 school system one-to-one computer programs.
4. Loaner computer/hotspot programs.
5. Percentage of residents who have adopted broadband.
6. Programs that conduct awareness and outreach activities of digital inclusion programming and resources.
7. Programs that provide digital literacy and digital skills training.
8. Programs that provide subsidized or low-cost devices.
9. Public computing labs.

Table 6: Broadband adoption assets in DC that can be leveraged in the deployment of federal BEAD and Digital Equity Act funding.

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
1. Computer refurbishing programs	DC Department of Energy & Environment	eCYCLE DC	Properly recycles electronics and conserves resources, ensures appropriate handling of toxic materials, provides a more sustainable source of precious metals, and protects human health and the environment.	All
	Compudopt	Compudopt, Washington DC	Uses donated computers to provide technology access and education to under-resourced youth and their communities.	Low-income households
	DC Department of Public Works	Recycling Electronics at RFK Stadium	Recycles unwanted computers, televisions, VCRs, stereos, copiers, and fax machines.	All
2. Digital navigator programs	Byte Back	Byte Back's 360 Digital Navigators	A community-to-community approach to closing the digital divide. This program teaches the fundamentals of adult learning science, effective teaching	All

[51] Organization who owns or manages the described asset
[52] Links provide either further information on asset or direct to organization providing access depending on what is available online

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
			strategies, and how to work with someone new to the digital world.	
	DC Serve Your City	Laptop Training Program	Serve Your City (SYC) provides life-changing experience and opportunities for at-risk DC students. Through the Laptop Training Program, students learn how to provide tech support to families and others who have received devices. Students also develop critical technological skills.	All
	DC Public Library	Digital Navigators at DC Public Library	Helps with basic technology problems and troubleshooting. Support includes computers, laptops, tablets, phones, email, and internet, filling out applications and forms, PDFs, and printing, and more. Support is available at four locations in the DC area.	All
3. P-20 school system (pre-school to age 20) one-to-one computer programs	DC Public Schools	Empowering Learners Initiative (ELI) (2019)	Over the next 3 years, DCPS will ensure students in grades 3-12 have equitable access to technology through a 1:1 student-to-device ratio, and that DCPS educators are equipped with the skills and knowledge needed to support students in leveraging technology for learning.	All
4. Loaner computer and hotspot programs	T-Mobile	Project 10 Million	An initiative aimed at delivering internet connectivity to millions of underserved student households at no cost. Partnering with school districts across the country, the program offers free high-speed data, free mobile hotspots, and access to at-cost laptops and tablets. School districts can apply on behalf of their students to participate.	Low-income households

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
	University of the District of Columbia	Success Laptop Loaner Program	The Office of Student Success provides a laptop loaner program for new and continuing University of the District of Columbia students, allowing for use throughout the semester.	All
5. Percentage of residents who have adopted broadband	The University of Chicago; Data Science Institute	Internet Equity Initiative	A national heat map depicting broadband access and internet speeds. The map combines data from the U.S. Census, FCC 477 (reports on local broadband deployment), and data from Ookla (a network testing company). Data is available for all census tracts by hovering over the map, and major cities can be zoomed-in on (e.g., Washington).	All
	Purdue Center for Regional Development	Digital Distress Metric and Digital Divide Index	These metrics developed by the Purdue Center for Regional Development use various data points to offer views -- by census tract and county -- of digital distress and the digital divide. These can be used by the District of Columbia to track digital equity and inclusion progress over time.	All
6. Programs that conduct awareness and outreach activities on digital inclusion programming and resources	Tech Together DC	Tech Together DC Partnership	Tech Together asks organizations to join a community of partners that believe in, and are committed to, creating opportunity for everyone by reducing the barriers to technology and internet access. It is a values-led partnership among the DC government, non-profit community, academia, and industry to bridge the digital divide through access, training, and opportunity.	All
	Information Technology Industry Council	5G Policy Principles and 5G Essentials	These provide recommendations for rollout of 5G. This includes combining government funding	All

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
		for Global Policymakers	and private sector investment to incentivize expansion of 5G to rural and hard-to-serve areas that would otherwise be underserved.	
	Organization of Chinese Americans, Inc	Organization of Chinese Americans website	Dedicated to advancing the social, political, and economic well-being of Asian Americans and Pacific Islanders. The organization received an Affordable Connectivity Program (ACP) outreach grant, and now links website users to the ACP.	Racial or ethnic minority group
	Byte Back	Digital Navigators Program	Byte Back received an ACP outreach grant for the Digital Navigators Program, which helps thousands of DC community members apply for the ACP. The program provided customized support to more than 400 scholars and their families in DC in 2022.	All
	The National Council of Negro Women	NCNW	The National Council of Negro Women's (NCNW) mission is to lead, empower and advocate for women of African descent, their families, and communities. The NCNW priorities are to promote education; encourage entrepreneurship, financial literacy, and economic stability; educate women about health and promote healthcare access; promote civic engagement and advocate for sound public policy and social justice. The organization received an ACP outreach grant, getting $740,000 to advocate awareness of, and participation in, the ACP.	Racial or ethnic minority group
	UnidosUS	UnidosUS	UnidosUS serves the Hispanic community through research, policy analysis, and state and	Racial or ethnic minority group

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
			national advocacy efforts. It received an ACP outreach grant to advocate awareness of, and participation in, the ACP.	(Hispanic/Latinx)
	Federal City Council	Catalyst Magazine	Catalyst writes about the gap in access to digital services, raising awareness for further broadband adoption efforts.	All
	Connected DMV	Connectivity for All	This program aims to help households gain access to reliable internet service, a computing device, as well as critical digital literacy and technical skills. The first phase of this collaborative effort is to aggressively engage communities throughout the DMV to raise awareness and encourage widespread adoption of the FCC's new connectivity financial assistance programs, the Emergency Broadband Benefit (EBB) and Emergency Connectivity Fund (ECF).	All
7. Programs that provide digital literacy and digital skills training	Assistive Technology Program for DC	DC Assistive Technology Demonstration Center	The DC Assistive Technology Resource Center (DCATRC) showcases assistive technology (AT) devices and services that increase independence and functional capability of persons with disabilities.	Individuals with disabilities
	Assistive Technology Program for DC	Get Connected	Get Connected is a program designed for older adults and persons with varying abilities, to teach useful technology features that can make it easier to use smartphones, tablets, laptops, or computers.	Aging individuals
	Capital Clubhouse Inc.	In House Education	Capital Clubhouse is a non-profit organization that serves people whose lives have been disrupted by mental illness. Capital Clubhouse colleagues work to	All

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
			help members achieve their education goals. This includes the Clubhouse Education Program, providing one-on-one tutoring by community volunteers and other members. Tutoring topics include digital literacy, typing, and financial literacy as of July 2023. Programs also include work-ordered day programs where members work side-by-side to learn new workplace skills and general life skills. This includes accessing resources to reach digital equity, such as using the internet, and learning to use computers or tablets.	
	DC Office of the Chief Technology Officer	Tech 101 Workshops	Tech 101 workshops are digital skill workshops that are free for DC residents and hosted across the District.	All
	DC Office of the Chief Technology Officer	Connect Potomac Gardens	Along with providing free in-home internet, DC hosts digital literacy programs for Potomac Gardens residents on-site, including computer safety and privacy, social media 101 and others.	Low-income households
	DC Office of the Chief Technology Officer	Connect Hopkins Apartments	DC hosts digital literacy programs for residents on-site including computer safety and privacy, social media 101 and others.	Low-income households
	Mary's Center	Mary's Center Senior Wellness Centers	The center hosts tech skill training sessions.	Aging individuals
	Department of Aging and Community Living	Around Town DC Technology Workshops	The program offers technology workshops on topics such as Microsoft Word, smartphone photography, and Google Apps.	Aging individuals
	Department of Aging and	Hayes Senior Wellness Center	The center's computer lab hosts tech classes to provide help with	Aging individuals

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
	Community Living		any devices and answer digital-related questions.	
	Department of Aging and Community Living	Washington Seniors Wellness Center	The center hosts tech sessions and computer trainings.	Aging individuals
	DC Public Library	Computer classes	The Adult Learning Department at DC Public Library offers computer classes (e.g., Microsoft Office software, Google suite, basic design with Canva)	Aging individuals
	The Family Place Public Charter School	Digital Storytelling Project	The goal of this 2022 project was to develop the students' language skills and digital literacy skills in an authentic way. Students were motivated to think of a personal narrative that they would like to share with others. Then, they built a video by incorporating music, photos, videos, and a recording of their own narrative that they wrote and read.	All
	Howard University	Digital Technology Credential	Howard University has developed a digital technology credential for students, which will ensure that all undergraduate students, regardless of their major, will have the digital skills needed to compete and thrive in today's workforce.	All
	DC Office of United Communications	OUC Training Academy	The academy provides enhanced education and training offerings to transform existing experience and skillsets to deliver Next Generation 911 and 311, which is a digital internet protocol designed to replace the analog public safety infrastructure in place for decades.	All
	ServiceNow	RiseUp	A global program aimed at providing the right talent to use	All

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
			the ServiceNow platform to address a global shortage of people with digital transformation IT skills. The program offers opportunity to fill that gap for anyone looking to be part of the digital workforce.	
	Office of the Deputy Mayor for Health and Human services, Age Friendly DC	Age Friendly DC 2023	Age-Friendly 2023 will work to compile a list summarizing tech training opportunities available to DC seniors, and to create and distribute a guide for age-friendly communications reflecting all forms of media.	Aging individuals
8. Programs that provide subsidized or low-cost devices	Assistive Technology Program for DC	DC Assistive Technology Device Loan Program	The DC Assistive Technology Device Loan Program was established for individuals and service providers to borrow assistive technology (AT) devices easily and at no charge.	Individuals with disabilities
	Office of the Deputy Mayor for Planning and Economic Development - DMPED	FY2024 budget to support seniors	The DC FY2024 budget includes $340,500 to distribute tablet devices to seniors for improving wellness activities, telehealth, and socialization.	All
	Byte Back / Wilderness Technology Alliance	Low-cost devices	The Wilderness Technology Alliance (WTA) has been selected as part of a 10-city project led by AT&T and Digitunity (an instant video messaging company) to provide more than 2,000 refurbished computers and technology support over the next two years to students and families in Washington, DC	All
	FCC	National Deaf-Blind Equipment Distribution Program	The FCC's National Deaf-Blind Equipment Distribution Program (NDBEDP), also known as iCanConnect, provides equipment needed to make telecommunications, advanced	Individuals with disabilities

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
			communications, and the Internet accessible to low-income individuals who are deaf and blind, or have both significant vision loss and significant hearing loss.	
	DC Public Library	Device distribution program	DCPL has distributed over 8,000 ChromeBooks to residents, in partnership with Department of Human Services, the Mayor's Office of Returning Citizen Affairs (MORCA), and the Department of Aging and Community Living (DACL).	Aging individuals; Justice impacted individuals
	DACL / Wild Tech	DACL Senior iPad Program	DACL provided 500 iPads to seniors throughout the District early in the COVID-19 pandemic. The seniors also received free tech support and digital literacy training.	Aging individuals
	Serve Your City / Ward 6 Mutual Aid	Laptops and Internet Service	This program has delivered over 1,000 backpacks filled with laptops, internet hotspots, masks, other supplies, and some fun activities. It also has given laptops to elderly residents in need of devices to access health care and other services.	Aging individuals
9. Public computing labs	DC Library	Public Computers & Printing	All 26 DC library locations have a limited number of computers available for customer use. Customers can sign up for unlimited 70-minute sessions per day or multiple 15-minute express sessions throughout the day. Access is first-come first-served at all locations	All
	Department of Parks and Recreation	King Greenleaf Recreation Center	King-Greenleaf Recreation Center is located in the Ward 6 Southwest Community, and has a computer lab.	All
	DC-BETA / DC Public Library	Digital Inclusion Sites	Digital Inclusion Centers include computer labs, access to high-	All

Asset type	Organization name(s)[51]	Asset name with link to asset[52]	Description	Covered population served
			speed broadband internet service, a comprehensive training curriculum, and staff. Individuals who successfully complete the introductory digital literacy training course will receive a refurbished desktop computer and one year of free broadband service.	
	Broadband USA	Tech Locator	The Tech Locator can be used to find public computer access and tech training in DC. Users can search by address, ward, ZIP code or location name and for internet, Wi-Fi, or trainings.	All
	District of Columbia Office on Aging / Connect.DC	Computer access for seniors (2015)	The District of Columbia Office on Aging (DCOA) partnered with Connect.DC (digital inclusion initiative) to install computers at six senior wellness centers and offer free computer access and basic digital literacy training to District seniors aged 60 and over as well as disabled residents of all ages.	Aging individuals

3.1.5 Broadband Affordability

Table 7 below includes DC assets for broadband affordability. Assets described in the below table include:

1. Discount or subsidized broadband service and equipment programs.
2. Steps taken to increase enrollment in the ACP.

Table 7: Broadband affordability assets in DC that can be leveraged in the deployment of federal BEAD and Digital Equity Act funding.

Asset type	Organization name(s)[53]	Asset name with link to asset[54]	Description	Covered population served
1. Discount or subsidized broadband service and equipment programs	DC-Net	DC-Net Community Anchor Services	DC-Net offers fully dedicated, what-you-sign-up-for-is-what-you-get internet – all the time. DC-Net encourages partnerships with non-profits, and is an E-rate provider.	All
	DC Office of the Chief Technology Officer	Community Internet Program	The Community Internet Program (CIP) allows any internet service provider (ISP) free access to the roofs of DC-owned buildings, operated by the Department of General Services, to install service antennas if the ISP commits to providing resident connectivity with high-speed connections (200 Mbps upload / 200 Mbps download or higher) at reduced or no cost to households eligible for the federal Affordable Connectivity Program (ACP).	All

[53] Organization who owns or manages the described asset
[54] Links provide either further information on asset or direct to organization providing access depending on what is available online

	Verizon	ACP Program	Verizon participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Astound Broadband, Powered by RCN	ACP Program	Astound participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Starry	ACP Program	Starry participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. Both Starry Select (100 Mbps) and Starry Connect (30 Mbps) would be free under the ACP.	Low-income households
	Mediacom	ACP Program	Mediacom participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	T-Mobile	ACP Program	T-Mobile participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month towards home high-speed internet service through its Metro subsidiary. For some of Metro's internet plans that means free service. T-Mobile also offers eligible customers free wireless service through Assurance Wireless.	Low-income households
	Xfinity (Comcast)	ACP Program; Internet Essentials	Xfinity participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month towards home or mobile high-speed internet service and equipment. For some of its internet plans that means free service.	Low-income households

	Verizon	ACP Program	Verizon participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Astound Broadband, Powered by RCN	ACP Program	Astound participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Starry	ACP Program	Starry participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. Both Starry Select (100 Mbps) and Starry Connect (30 Mbps) would be free under the ACP.	Low-income households
	Department of Human Services / OCTO	DC HOPE Network (2021)	Brings free in-unit internet service to residents at five temporary housing and family homeless shelters across DC.	All
	DC Housing Authority / OCTO	Free in-home high speed internet pilot (2022)	Pilot program by the Office of the Chief Technology Officer and the DC Housing Authority to provide free in-home high-speed internet and digital literacy training at two DC Housing Authority locations in Ward 6.	Low-income households
	DC Department of Housing and Community Development	Homeowner Assistance Fund (HAF)	A $50 million fund to provide financial assistance to eligible homeowners struggling to make housing related payments, including internet payments.	Low-income households
	Mayor's Office of Community Affairs	Internet for All initiative	Provides $3.3 million for free internet access for up to 25,000 disconnected low-income students and families in DC Public Schools and public charter schools.	Low-income households
	DC Office of the Chief Technology Officer	Connect Potomac Gardens	Potomac Gardens residents receive free Wi-Fi in their apartments and common areas.	Low-income households

	Verizon	ACP Program	Verizon participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Astound Broadband, Powered by RCN	ACP Program	Astound participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Starry	ACP Program	Starry participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. Both Starry Select (100 Mbps) and Starry Connect (30 Mbps) would be free under the ACP.	Low-income households
	DC Office of the Chief Technology Officer	Connect Hopkins Apartments	Hopkins Apartments residents will receive free Wi-Fi in their apartments and common areas.	Low-income households
2. Steps taken to increase enrollment in ACP	Black Churches 4 Digital Equity	Black Churches 4 Digital Equity	Black Churches 4 Digital Equity is building a collaborative movement across the nation to make sure that communities with the least access get digital equity. The coalition works to educate members about broadband internet assistance programs, encourage unconnected households to get online, to train and organize leaders as advocates to get their communities connected, and to advance digital equity through the Affordable Connectivity Program (ACP). This group hosts annual events in DC.	Racial or ethnic minority group
	Tech Together	Internet Access Initiatives	Helps people who formerly used the DC government's Internet for All program, to transition to the Affordable Connectivity Program.	Low-income households

	Verizon	ACP Program	Verizon participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Astound Broadband, Powered by RCN	ACP Program	Astound participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Starry	ACP Program	Starry participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. Both Starry Select (100 Mbps) and Starry Connect (30 Mbps) would be free under the ACP.	Low-income households
	Organization of Chinese Americans, Inc	Organization of Chinese Americans website	Organization dedicated to advancing the social, political, and economic well-being of Asian Americans and Pacific Islanders. Received ACP outreach grant and links website users to the ACP.	Racial or ethnic minority group
	Byte Back	Digital Navigators Program	Byte Back received an Affordable Connectivity Program (ACP) outreach grant for the Digital Navigators Program, which helps thousands of DC community members apply for ACP funds. The program provided customized support to more than 400 scholars and their families in DC in 2022.	Low-income households
	The National Council of Negro Women	NCNW	The National Council of Negro Women's (NCNW) mission is to lead, empower and advocate for women of African descent, their families, and communities. The NCNW priorities are to promote education; encourage entrepreneurship, financial literacy, and economic stability; educate women about health and promote healthcare access; promote civic engagement and advocate for sound public policy and social justice. The organization received	Racial or ethnic minority group

	Verizon	ACP Program	Verizon participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Astound Broadband, Powered by RCN	ACP Program	Astound participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. For some of its internet plans, that means free service.	Low-income households
	Starry	ACP Program	Starry participates in the Affordable Connectivity Program, giving eligible customers discounts of up to $30 per month toward home high-speed internet and equipment. Both Starry Select (100 Mbps) and Starry Connect (30 Mbps) would be free under the ACP.	Low-income households
			an ACP outreach grant of $740,000 to raise awareness of, and participation in, the ACP.	
	UnidosUS	UnidosUS	UnidosUS serves the Hispanic community through research, policy analysis, and state and national advocacy efforts. It received an ACP outreach grant to raise awareness of, and participation in, the ACP.	Low-income households

3.2 Needs Assessment

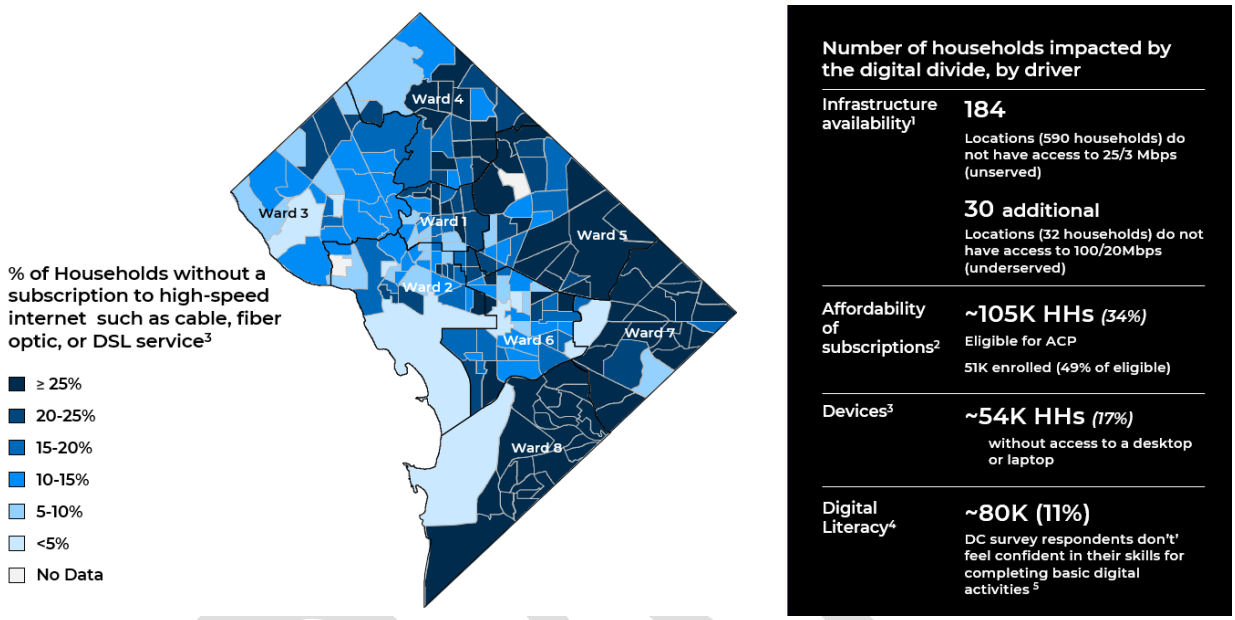
The DC Broadband Access and Digital Equity Survey results in this DRAFT version of the SDEP are PRELIMINARY. As of Nov 9, 2023, ~200 survey results have been received. Per guidance from OCTO, the survey will stay open until the end of November 2023. Once the survey is close, the data will be analysed, and the SDEP will be updated.

In the District of Columbia, about 88,000 residents in approximately 39,000 households (13 percent) do not have a subscription to high-speed internet at home. (See Figure 6 for more details.)[55] This gap in adoption may be driven by a lack of:

- **Available infrastructure:** 184 broadband serviceable locations (590 households) do not have access to 25/3 Mbps service (unserved); 30 additional broadband serviceable locations (32 households) do not have access to 100/20Mbps service (underserved).
- **Affordability of subscriptions**: Some 105,000 households (34 percent) are eligible for ACP, with about 51,000 enrolled.
- **Device access:** About 54,000 households (17 percent) are without access to a desktop or laptop
- **Digital literacy skills:** 11 percent of survey respondents do not feel confident about using computers to complete basic online activities.

[55] American Community Survey 5-Year data, 2021

Figure 6. Households impacted by digital divide in DC, by 2020 Census tract and ward[56]



In this section, we further detail the baseline from which DC is working to address gaps in broadband adoption, affordability, device access and digital literacy, as well as the information that residents have communicated about their underlying needs and the barriers they face to becoming fully digitally enabled. Later in this section, we provide details on each of these topics as they specifically pertain to DC's covered populations: individuals who live in covered households, aging individuals, incarcerated individuals, veterans, individuals with disabilities, individuals with a language barrier, and ethnic or racial minorities.[57]

3.2.1 Broadband Adoption

This section describes the current state of DC's broadband adoption, device access, and digital literacy rates, as well as the feedback gathered from residents on the barriers they face. This section also includes a discussion about the areas (e.g.,

[56] 2021 American Community Survey 5-year estimates
[57] Covered population as defined by the State Digital Equity Planning Grant Program Notice of Funding Opportunity, NTIA

education, employment, healthcare, small businesses) where multi-sector strategies for increasing broadband adoption could be effective in DC, as well as the metrics for assessing outcomes.

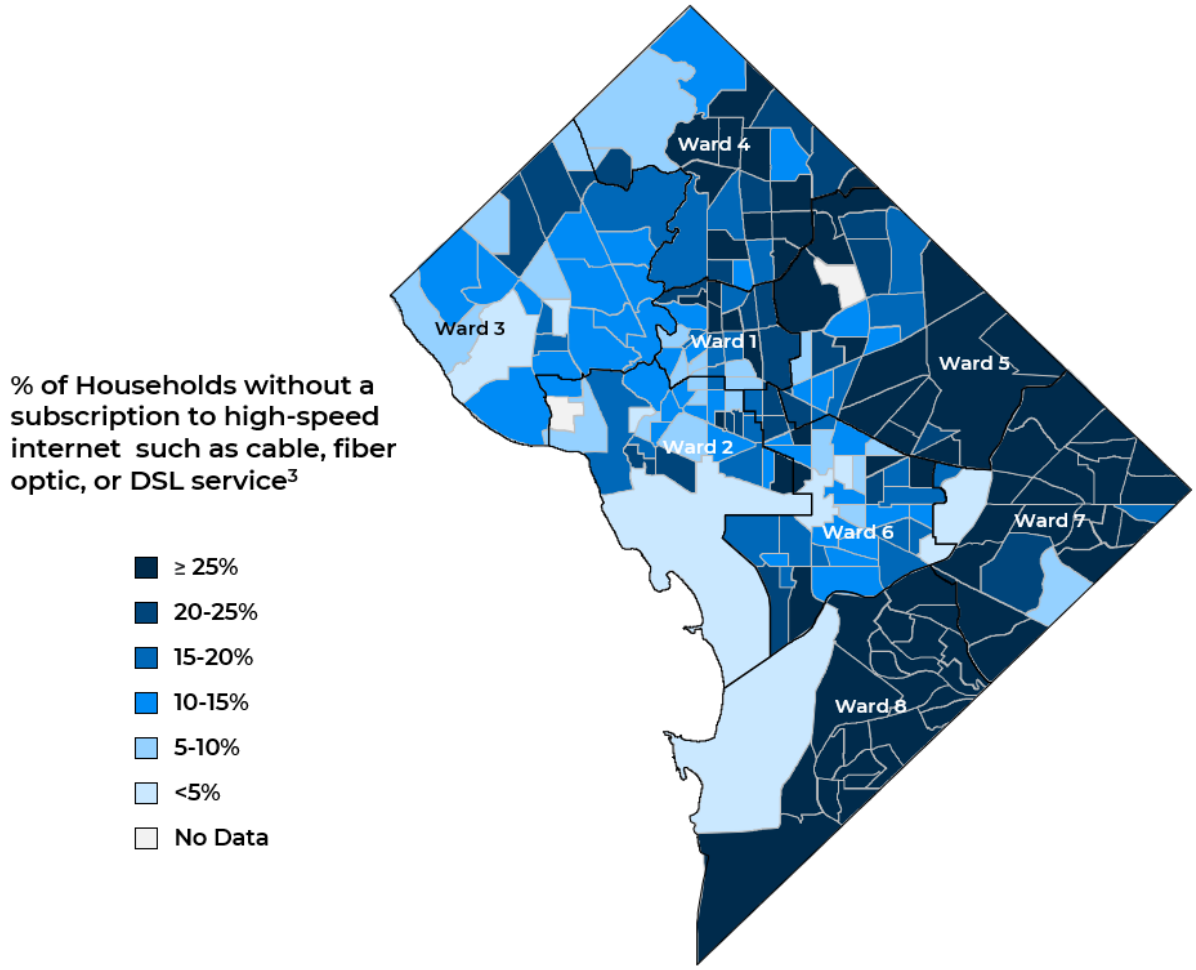
3.2.1.1 Increased household broadband subscription

Current state of broadband subscription in DC

According to the 2021 American Community Survey, approximately 88,000 DC residents in about 39,000 households (23 percent) do not have broadband subscriptions.[58] The gaps in adoption are largest in Wards 5, 7, and 8. Wards 4 and 5 are both below the DC average (77 percent broadband subscription), with the ACS data showing 74 percent and 73 percent broadband subscription rates, respectively. Wards 7 and 8 have the two lowest broadband subscription rates in the district, with 63 percent and 61 percent of residents having a broadband subscription, respectively (Figure 7). Figure 7 demonstrates how broadband adoption rates vary geographically across the District, highlighting again how Wards 5, 7, and 8 have lower adoption rates than the District average. Ward 3 has the highest adoption rate in DC, at 86 percent.

[58] Assumes a household size of 2.25 people

Figure 7. Households impacted by digital divide in DC, by 2020 Census tract and ward[59]

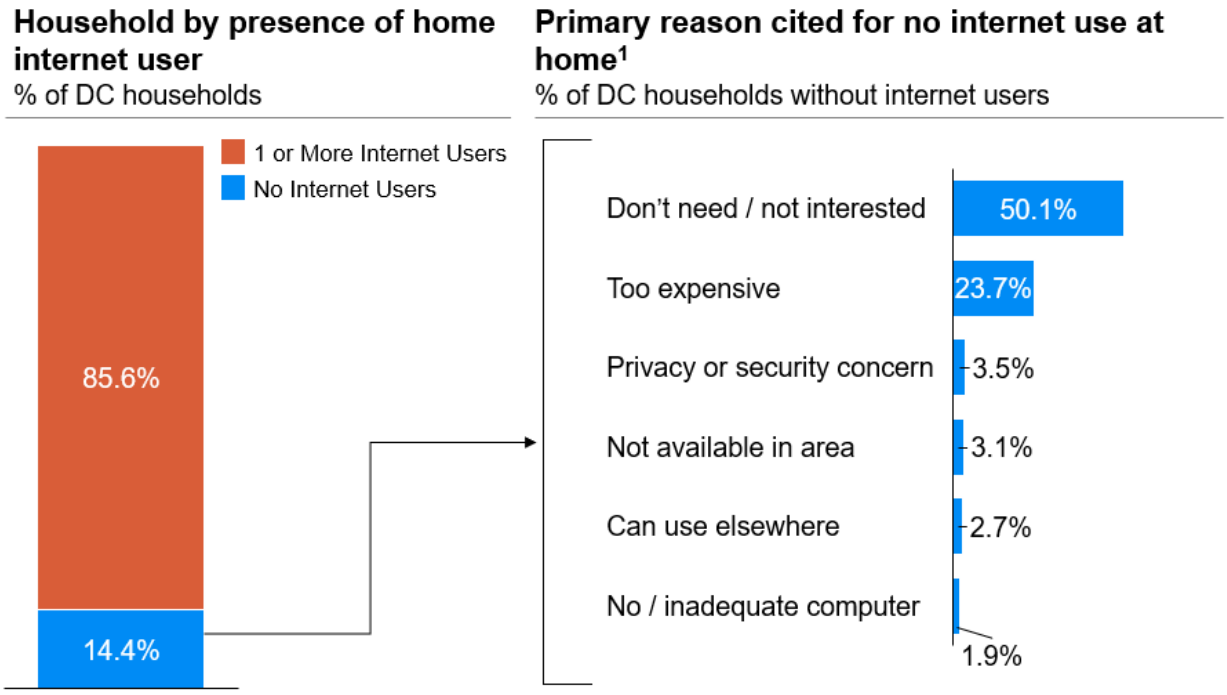


In Figure 8, survey responses from the NTIA Internet Use Survey shows that many DC residents do not use home internet service because they believe they do not need it, or because they are not interested.[60] 14 percent of DC households do not have a home internet user. From this population, 50 percent stated that they did not need internet service or were not interested in the internet, as their primary reason for not using the

[59] 2021 American Community Survey 5-year estimates
[60] For the November 2021 CPS, which included the NTIA Internet Use Survey, the Census Bureau gathered information on nearly 100,000 people living in over 43,000 households across all 50 states and the District of Columbia.

internet at home. Another 24 percent cited internet usage as too expensive, as their primary reason for not getting it.

Figure 8. Use of the internet at home in DC[61]



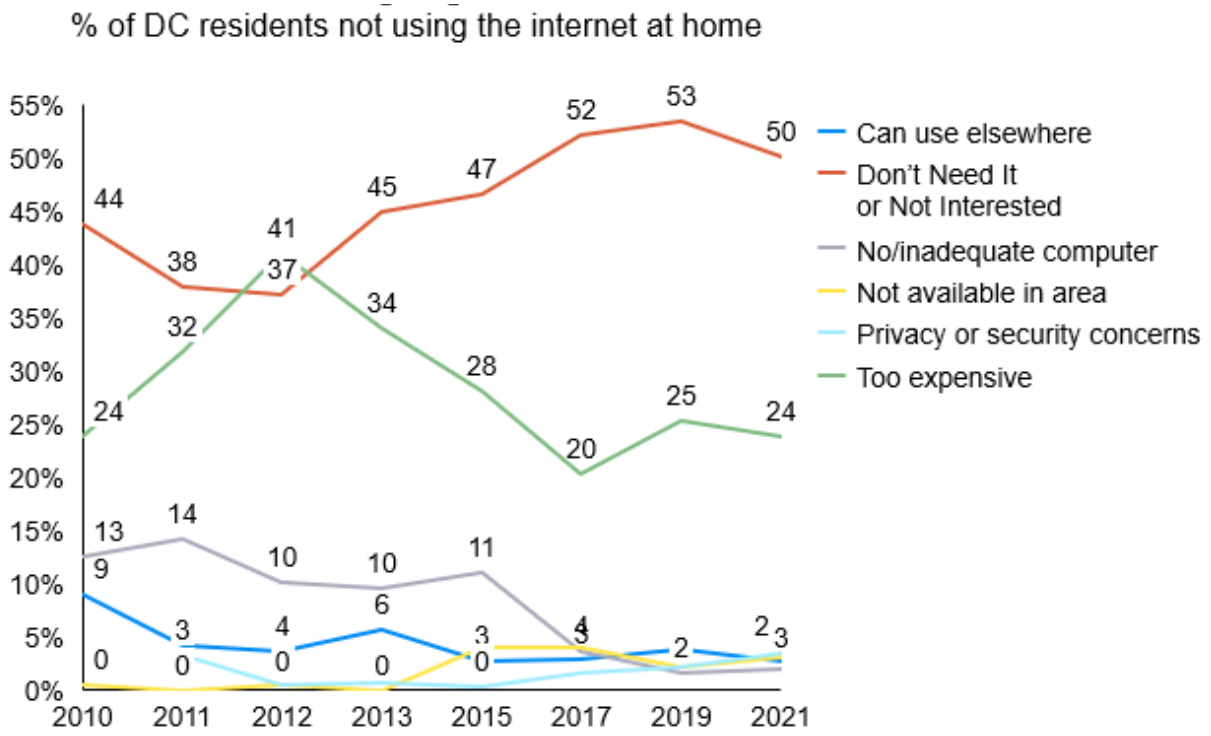
Internet use in DC over time

As shown in Figure 9, the 2021 NTIA Internet Use Survey shows that the DC residents' reasons for not using the internet at home have changed over time. "Don't need it or not interested" and "Too expensive" have consistently been the two most-often cited reasons. Following the pandemic, users selecting "Don't need it or not interested" dropped 3 points. "No/inadequate computer" has fallen from 13 percent of respondents in 2010 to 2 percent in 2021, and "Can use elsewhere" has similarly fallen from 9 percent in 2010 to 3 percent in 2021 (Figure 9).

Many DC residents may not currently have an advanced use case for having highspeed broadband at home. In these cases, helping residents to develop their knowledge and skills could expand their internet use and show them the benefits of participation in the digital ecosystem. This could help to close the adoption gap in DC.

[61] NTIA Internet Use Survey, 2021

Figure 9. Trends in reasons why DC households do not use the internet at home[62]

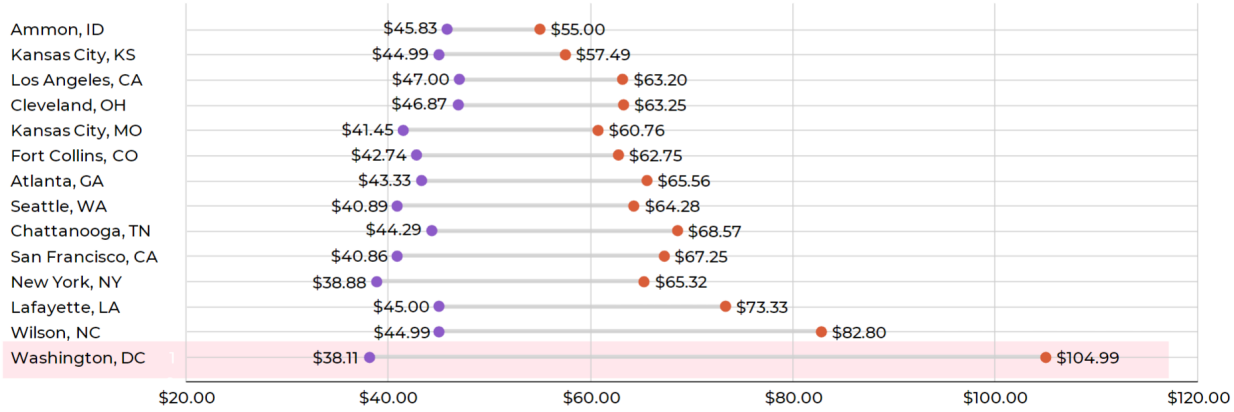


Broadband subscription-related needs and barriers

In DC, prices for high-speed internet subscriptions at home may be a significant barrier to increasing household broadband subscriptions. The "Cost of Connectivity 2020" study by New America summarized research on internet affordability across the US. In an assessment of US cities with plans costing $50 and under, this study showed that, in 2020, DC had the highest standard non-promotional pricing at $104.99 per month. DC ranked slightly below average among its peers on average promotional pricing, at $38.11 per month (Figure 10 has a range for various cities).

[62] Ibid.

Figure 10. The Cost of Connectivity 2020: U.S. Cities with Plans $50 and Under[63]



In addition, lack of digital literacy and gaps in digital skills have exacerbated residents' fears about online safety and privacy, making them reluctant to obtain home access to high-speed internet.

Meetings with DC-area digital equity and inclusion practitioners and the TechTogether DC community have underscored the fact that there is a population within DC that struggles to use information and communication technologies to find, evaluate, create, and communicate information. Residents have expressed concerns about keeping their personal information private and feel vulnerable to internet scams and computer viruses. These concerns may be a potential barrier not only to adoption of home internet service, but also to residents taking full advantage of the benefits inherent to accessing telehealth and other essential services, as well as full participation in the digital economy.

In BEAD and Digital Equity stakeholder engagement events, the following themes emerged from resident's comments related to possible barriers to **adoption**:

- **High cost as a barrier to internet adoption.** Residents cited high internet service costs as a barrier to adoption. For example, one resident stated, "The biggest challenge is being subscribed to an internet service and the affordability of the subscription. 'I can't afford it,' is a common sentiment. "[64] Individuals who are members of racial or ethnic minority groups reported reliance on their mobile phones due to the expense of home internet.
- **Challenges to adoption due to digital skill gaps.** Stakeholders also reported barriers to adoption driven by gaps in digital literacy and digital skills. Residents

[63] https://www.newamerica.org/oti/reports/cost-connectivity-2020/
[64] OCTO Listening Session, November 2023

who are part of racial or ethnic minority groups expressed distrust of the internet and concerns about cyber-attacks. Aging individuals reported a lack of knowledge on the need of connecting to Wi-Fi and lack of understanding of internet-related terminology. For example, one participant highlighted, "I don't know anything about new technology, and I don't know anything about programs that help access internet."[65]

3.2.1.2 Improved households, businesses, and CAIs with access to internet-capable devices

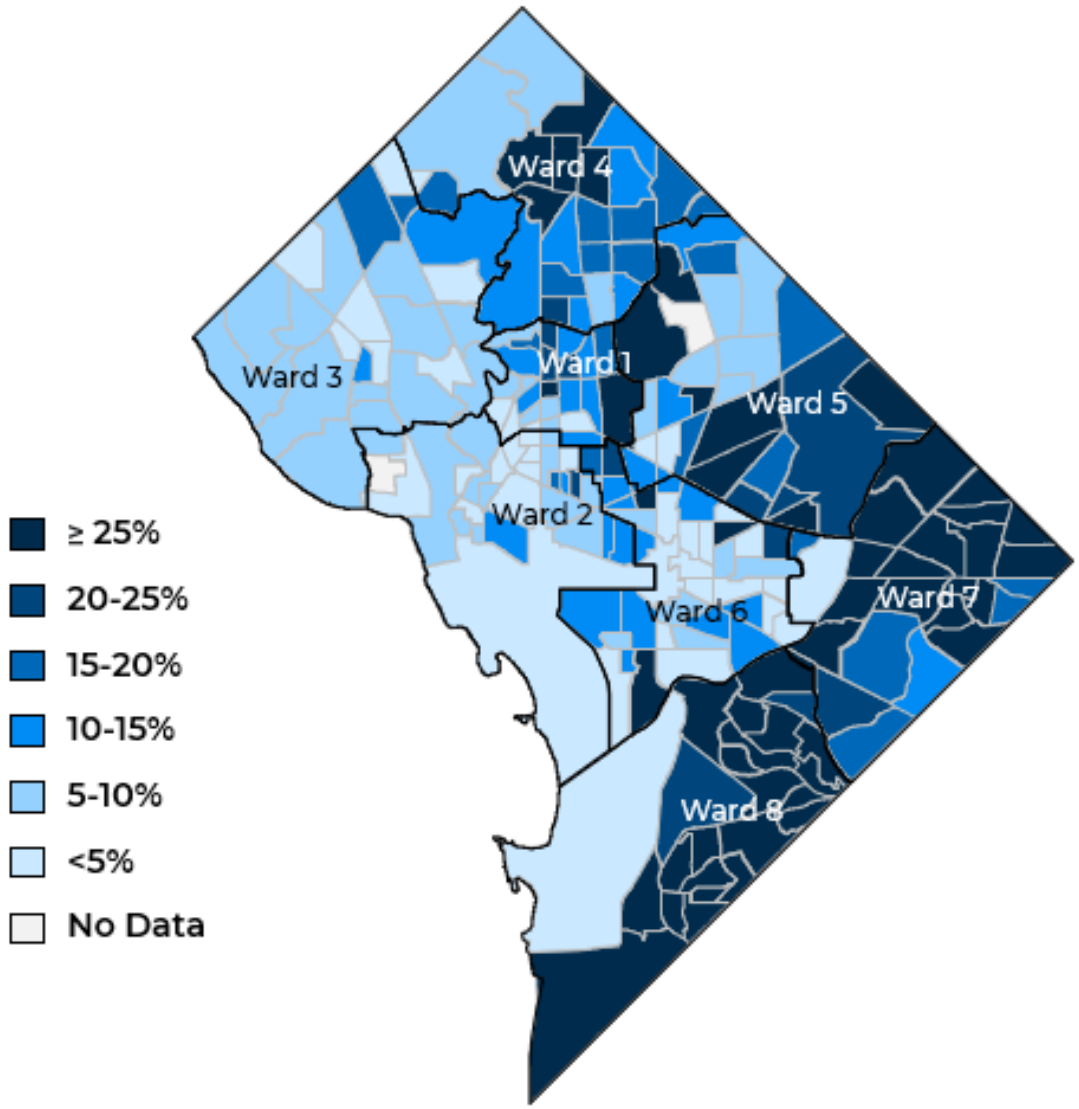
Device access in households in DC

A total of 83 percent of DC households have access to an internet-connected device (desktop or computer), compared to 79 percent of households nationally. Five out of eight wards have a device adoption rate of at least 80 percent. However, the wards that are not in line with this average reveal the disparities in DC. In Ward 7, for instance, 68 percent of households do not have access to a device. In Ward 8, the device access rate is 61 percent. By contrast, in Wards 1 through 6, 88 percent of households have access to a device.[66]

See Figure 11 below for a mapped view of rates of access to internet-enabled devices across DC. As with gaps in subscription adoption rates, the largest gaps in access to devices are in the lowest-income parts of DC, which are in Wards 5, 7 and 8.

[65] Ward 6 Internet Safety Workshop, September 2023
[66] American Community Survey 2021 5-year estimates

Figure 11. Percentage of DC households without access to internet-enabled devices, either a desktop or a computer, by ward[67]

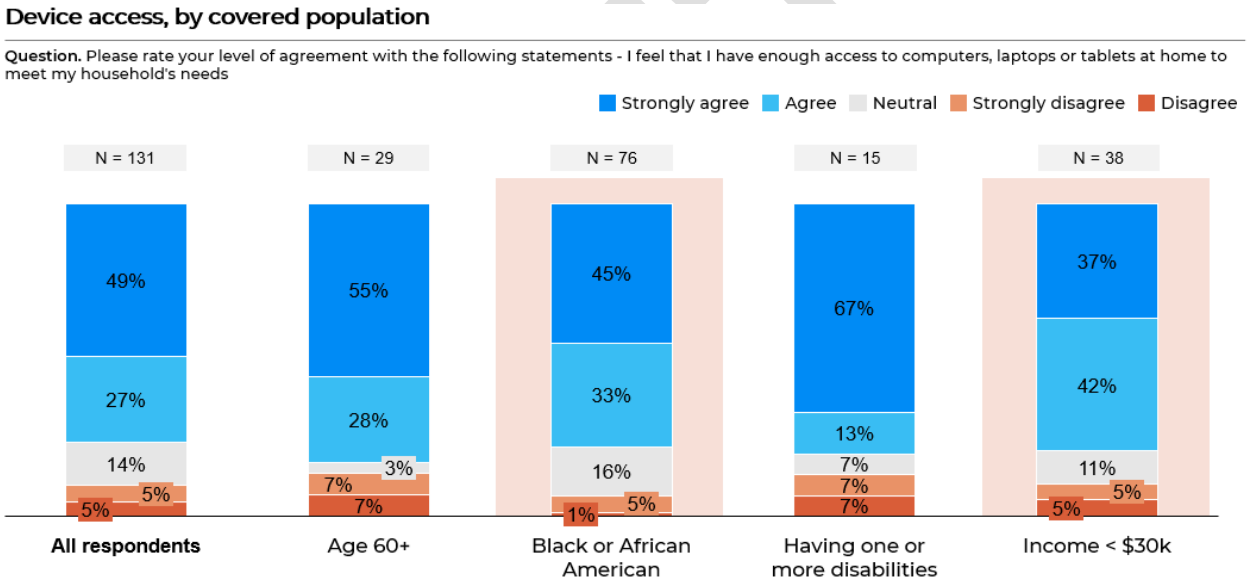


The DC Broadband Access and Digital Equity Survey, residents were asked to "rate their level of agreement with the following statement: 'I feel that I have enough access to computers, laptops or tablets at home to meet my household's need.' " The results shows that only 67 percent of residents in DC have enough access to internet-connected computers, laptops, or tablets at home to meet their household's needs (Figure 12). Access to internet-connected devices varies by covered population status. For instance, respondents with income below $30K and Black or African American respondents are less likely than

[67] Ibid.

peers to indicate having enough access to internet-connected devices in their household. Only 37 percent of respondents with income below $30K and 45 percent of Black or African American respondents strongly agree with a statement indicating that they have enough access to devices in their household, while 49 percent of all survey respondents strongly agree with this statement.

Figure 12. Device access, by covered populations. DC Broadband Access and Digital Equity survey results, August – October, 2023



Device access-related needs and barriers

In listening sessions across the district, the need for access to affordable devices and tech support was a common theme:

- **High cost as a barrier to device access:** Many participants reported reliance on smartphones due to limited access to laptops or tablets largely due to the cost.[68] For example, one participant highlighted, "Many residents can't afford the necessary technology."[69] Homeless individuals and tech-deficient residents face significant hurdles in device accessibility.[70]
- **Gaps in public device access:** Residents also highlighted gaps in device access in public spaces. While some reported access to devices in local libraries, other

[68] OCTO Listening Session, November 2023
[69] CFSA Lived Experience, September 2023
[70] Ibid.

residents highlighted an unmet need for essential equipment like reliable laptops and phones in accessible locations.

- **Accessibility challenges for individuals with disabilities:** Individuals living with disabilities experience accessibility barriers device use. For example, one resident reported, "Online platforms and new devices need to better support individuals who may be visually impaired or with a loss of sight."[71] There's a need for greater device support on new devices and more inclusive software updates for people with disabilities.

[71] Department of Disability Services, October 2023

3.2.1.3 Improved digital literacy

Current state of digital literacy in DC

According to UNESCO, digital skills include the ability to use digital devices, communication applications, and networks to access and manage information for creative self-fulfillment in life, learning, work, and social activities at large[72]. These skills are on a spectrum. At the beginning of the spectrum is basic digital literacy, which includes the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.[73] At the opposite end of the spectrum are abilities that allow users to make use of digital technologies in empowering and transformative ways, such as working in information and communications technology (ICT).[74]

Results from the DC Broadband Access and Digital Equity Survey (see Figure 13) showed that 6 – 11 percent of respondents were "not at all confident" or "not very confident" in their ability to successfully complete basic tasks on the internet such as:

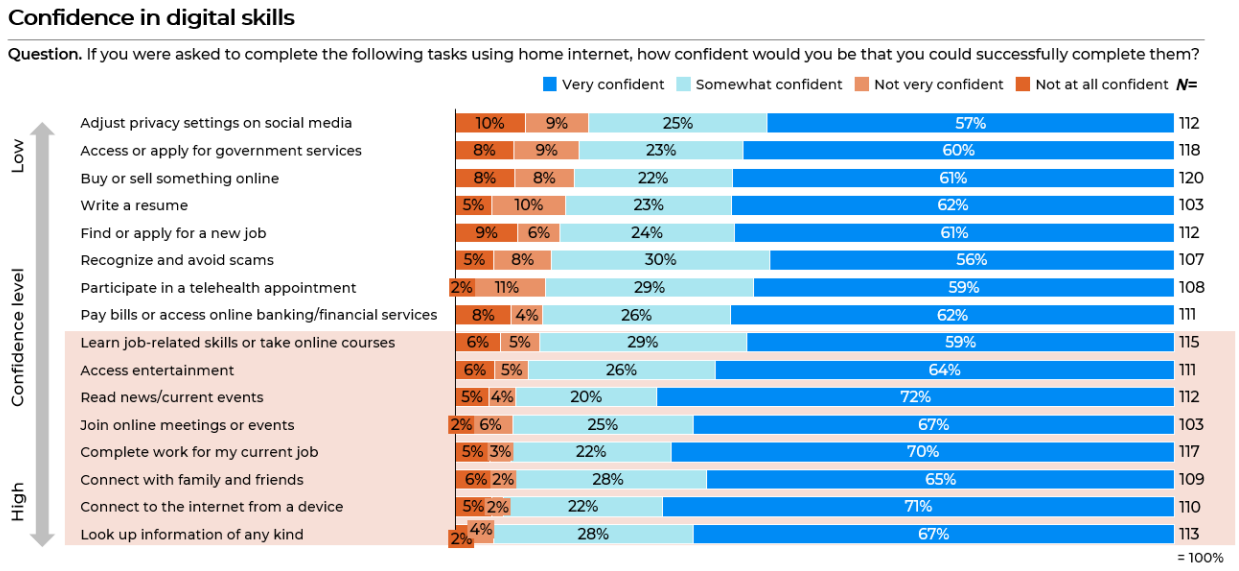
- Connecting with family and friends (8 percent)
- Connecting to the internet from a device (7 percent)
- Looking up information of any kind (6 percent)
- Completing work for a current job (8 percent)
- Learning job-related skills or take online courses (11 percent)
- Accessing entertainment (11 percent)

For other digitals skills that are a necessary for participation in society—such as writing a resume, accessing or applying for government services, or reading news and current events—9 to 17 percent of respondents were not at all confident or not very confident in their ability to successfully complete these tasks.

With respect to online privacy and cyber security tasks, such as recognizing and avoiding scams and adjusting privacy settings on social media—13 to 19 percent of respondents are not at all confident or not very confident in their ability to successfully complete these tasks.

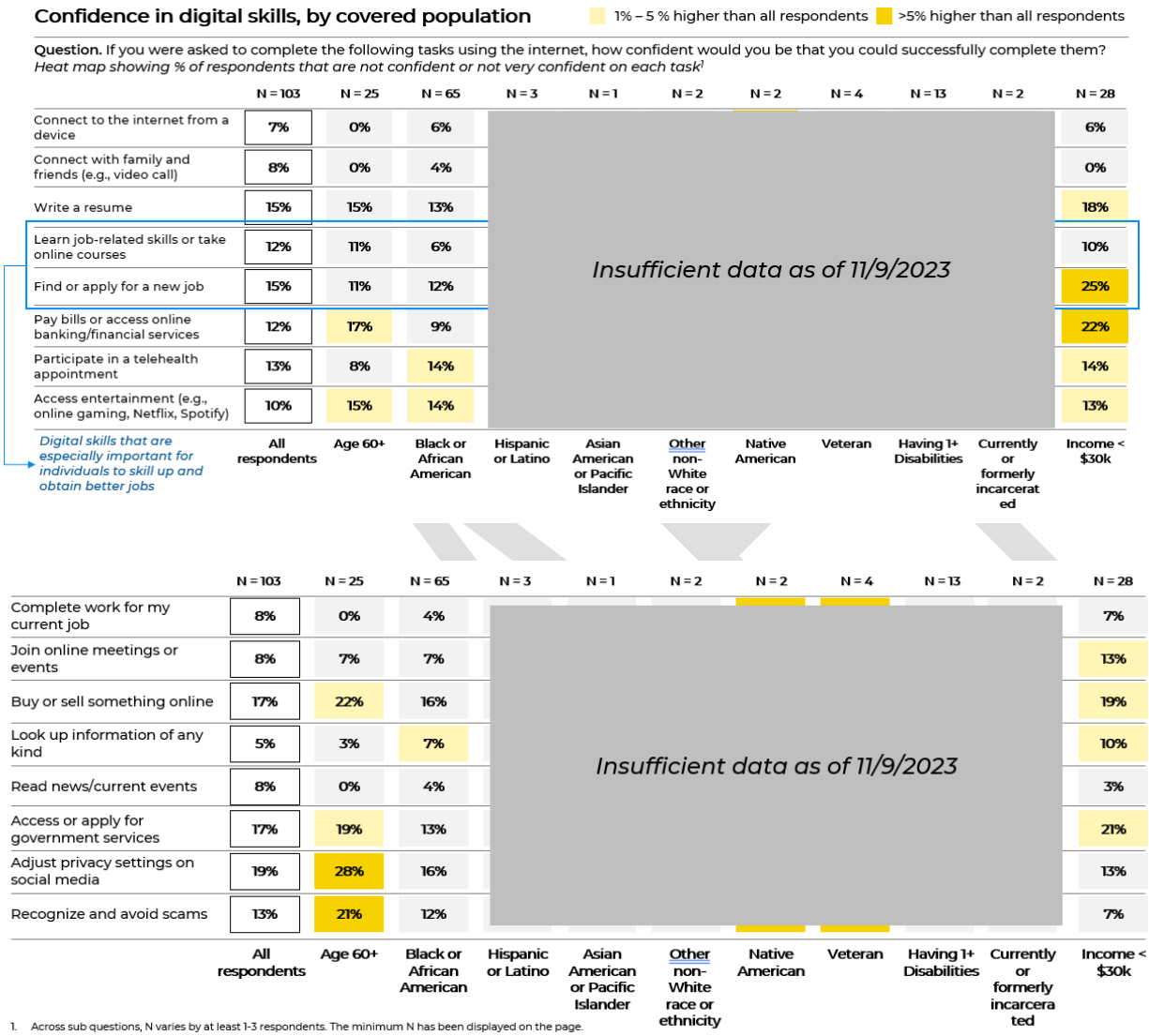
[72] https://en.unesco.org/news/digital-skills-critical-jobs-and-social-inclusion
[73] https://www.digitalinclusion.org/definitions/
[74] https://en.unesco.org/news/digital-skills-critical-jobs-and-social-inclusion

Figure 13. Confidence in digital skills, all respondents. DC Broadband Access and Digital Equity survey results, August – October, 2023



Examining preliminary survey results by covered population shows that only 28 percent of aging DC residents (60+ years) are very confident in their ability to adjust privacy settings on social media, compared to 19 percent of all respondents (see Figure 14). And with respect to cyber security, only 21 percent of aging DC residents are confident in their ability to recognize and avoid scams, while 13 percent of all respondents are confident about this ability.

Figure 14. Confidence in digital skills, by covered populations. DC Broadband Access and Digital Equity survey results, August – October, 2023



Additional results to be added when sufficient survey responses are received.

Digital literacy-related needs and barriers

In 2023, Mayor Bowser's inauguration address unveiled DC's 5-year strategy to add 35,000 new jobs to the local economy. These jobs will be created in targeted industries such as education, communications and design, consulting, hospitality and tourism, life sciences, and technology.[75]
Research from the National Skills Coalition shows that many of these jobs require "definitely digital" skills, such as using a named software product, and "likely digital" skills such survey design and bookkeeping. For example, the coalition's analysis of 43 million online job postings shows that:

- In education: 45 percent of postings require definitely digital skills
- In professional services: 73 percent of postings require definitely digital skills.[76]

A significant barrier to improving digital literacy could be that DC digital learning programs may not have sufficient capacity and may not be accessible enough to meet the need. Residents and digital equity practitioners have highlighted the need for programs to be accessible to the target population, and thus:

- located near where residents live;
- accessible by public transportation;
- held at times that are suitable for working people (e.g., with options after business hours, on the weekends);
- offered in multiple different languages;
- provisions made for child-care options.

In addition, programs that feed into digital jobs were mentioned as particularly effective.

In BEAD and Digital Equity stakeholder engagement events, the following themes emerged from discussions on barriers to digital literacy and skills:

- **Insufficient training programs:** Listening session participants highlighted the challenge of not having sufficient, readily available support and resources in locations like libraries, churches, and parent centers to address connectivity gaps.
- **Lack of tailored digital education programs that align with the specific needs and abilities of participants:** There is a need for targeted programming and training in technology, especially for members of covered populations. In listening sessions with seniors, some individuals reported being unaware of

[75] https://www.washingtonpost.com/dc-md-va/2023/01/09/bowser-dc-economy-growth-equity/
[76] https://nationalskillscoalition.org/wp-content/uploads/2023/02/NSC-DigitalDivide_report_Feb2023.pdf

basic concepts like connecting phones to Wi-Fi or understanding megabytes, and highlighted the need for capability-specific training.[77]

- **Need for additional in-person support and interactive learning opportunities to support building their digital skills:** Participants in listening sessions mentioned that while tech support over the phone is appreciated, there's a strong desire for in-person support and hands-on learning opportunities.[78]
- **Limited Awareness of Digital Programs:** A common theme among participants is their limited awareness of digital programs and support services available in their communities. Several community members did not know specific programs or support systems designed to help them improve their digital skills or support them through acute internet use challenges.
- **Challenges in Internet Usage and Security.** Many listening session participants expressed needing training support with safe navigation of the internet, from cybersecurity concerns like phishing emails, to difficulties with setting up software and
programs. Additionally, phone security is often a challenge for aging individuals, with individuals expressing the need for support in navigating these issues through tech support and local programming.[79]

3.2.1.4 Increased emphasis on multi-sector strategies for broadband adoption

Broadband-related needs and barriers in different sectors

Studies show that access to broadband and internet-connected devices can potentially have a measurable impact on socio-economic outcomes, including:

- **Jobs**: A 10 percent increase in broadband adoption could lead to an annual increase of ~269,000 jobs across the US.[80]
- **Income**: Access to high-speed broadband could result in a $2,000 Increase in household income among low-income families.[81]
- **Job satisfaction**: 73 percent of caregivers use the time they save from working from home to care for their children.[82]

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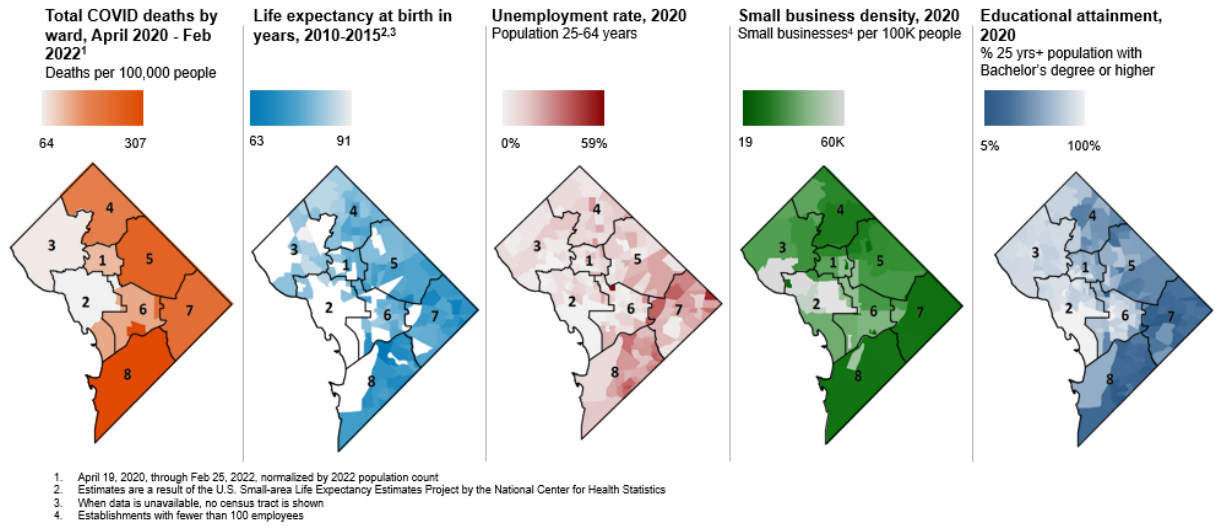
[77] Ward 6 Internet Safety Workshop, September 14, 2023
[78] Hattie Holmes Wellness Center, October 10, 2023
[79] Commission on Aging Listening Session, October 25, 2023
[80] https://www2.deloitte.com/us/en/pages/about-deloitte/articles/press-releases/quantifying-the-economic-impact-of-closing-the-digital-divide.html
[81] George W. Zuo, Wired and Hired: Employment Effects of Subsidized Broadband Internet for Low-Income Americans, 2021
[82] https://www.forbes.com/sites/glebtsipursky/2023/01/27/new-research-shows-remote-work-essential-for-caregivers/?sh=23ab15104331

- **Health**: Patients save an average of $93 when using non-urgent virtual care instead of an in-person visit.[83]
- **Productivity**: Workers reported that their productivity improved by 87 percent when working remotely according to an IBM study.[84]
- **Community engagement**: A Spanish town of 3,500 residents saved $380,000 annually by running most of the town's communication through social media.[85]

In several parts of DC, investments in digital equity could meaningfully shrink gaps in socio-economic outcomes. As shown below in Figure 15, in DC, socio-economic outcome metrics related to COVID deaths, life expectancy at birth, unemployment rate, small business density and educational attainment follow the same deficit pattern as broadband and affordability gaps, as they more starkly affect Wards 5, 7, and 8.

Figure 15. Outcome statistics for key areas that can be impacted by broadband equity, access, and adoption, by ward[86]



In COVID deaths, life expectancy, unemployment rate, small business density, and educational attainment, Wards 5, 7 and 8 are more adversely affected. These outcomes are similar to the geographical distribution of gaps in broadband adoption and device access in both the disparity across wards, and highlight the clear deficits in Wards 5, 7 and 8.

[83] https://www.brookings.edu/articles/washington-may-be-about-to-take-a-giant-step-backward-in-closing-the-digital-divide/
[84] Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: findings, new directions, and lessons for the study of modern work. Journal of Organizational Behavior, 23, 383-400.
[85] https://medium.com/@socialmachines/the-incredible-jun-a-town-that-runs-on-social-media-49d3d0d4590
[86] DC COVID-19 Surveillance data; National Center for Health Statistics, US Census, DC Open Data

By expanding access to broadband service and devices, as well as partnering with agencies and organizations focused on leveraging broadband and devices as tools within initiatives to drive health and economic equity, DC SBDEO hopes to affect the lives and livelihoods of all DC residents.

Examples of current DC initiatives focused on these areas include—

- ***Addressing barriers to internet access:*** Ensure that all DC residents have equitable access to affordable, high-speed, and reliable internet service, including by:
    - Improving information technology systems within schools;
    - Identifying "racial equity indicators" that measure progress toward a more racially equitable DC;
    - Reaching communities that experience barriers to online access by bridging the digital divide;
    - *Efforts are being conducted in partnership with:*
        - Office of the Mayor
        - Office of the Deputy Mayor for Planning and Economic Development (DMPED))
        - Office of Racial Equity
        - DC Department of Employment Services
- ***Addressing barriers to device access:*** Empower all DC residents with the devices, including by:
    - Deploying various plans designed to support seniors (e.g., $340,500 to distribute tablet devices to them)
    - *Efforts are being conducted in partnership with:*
        - Office of the Mayor
        - Office of the Deputy Mayor for Planning and Economic Development (DMPED))
- ***Supporting digital literacy:*** Offer digital learning curriculum that incorporates current business internet trends, including by:
    - deploying a training session that teaches businesses how to market their products through online social networking sites.
    - *Efforts are being conducted in partnership with:*
        - Department of Small and Local Business Development (DSLBD)
- ***Enabling digital technology knowledge-sharing:*** Investing $5 million in efforts to make The District a world destination for uniting digital technology with public policy, equity, and social impact.
    - *Efforts are being conducted in partnership with:*
        - Office of the Deputy Mayor for Planning and Economic Development

For further detail on these initiatives, see Section 2.2 "Alignment with Existing Efforts to Improve Outcomes" of this document.

3.2.2 Broadband Affordability

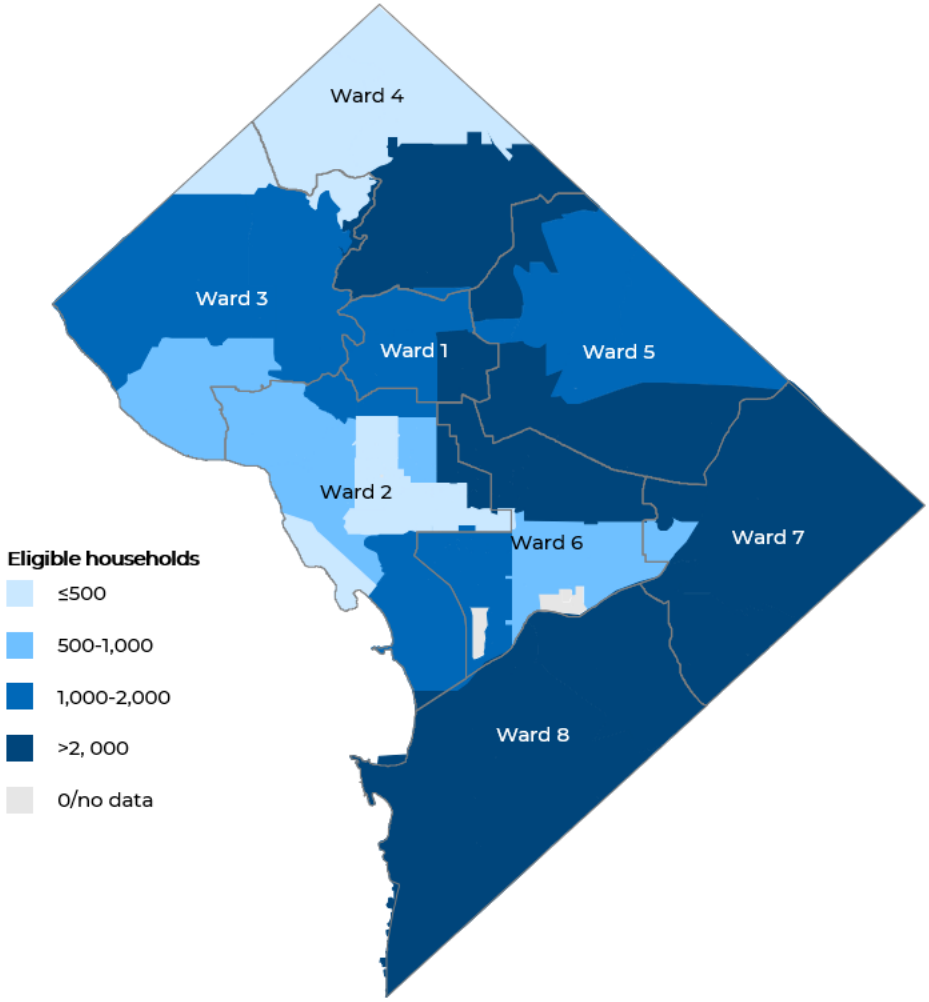
3.2.2.1. Increased support for enrollment in assistance programs for low-income consumers

ACP-eligible population in DC

A household is ACP-eligible if its household income is at or below 200 percent of Federal Poverty Guidelines, or if a member of the household has received a Pell Grant during the current award year, meets eligibility criteria for a provider's existing low-income internet program, participates in an assistance program such as SNAP or Medicaid, or participates in an assistance program and lives on Qualifying Tribal lands.[87] **Approximately 105,000 households are eligible for ACP in the District.** As shown in Figure 16, these households are concentrated in Wards 4, 5, 6, 7 and 8.

[87] https://www.fcc.gov/acp

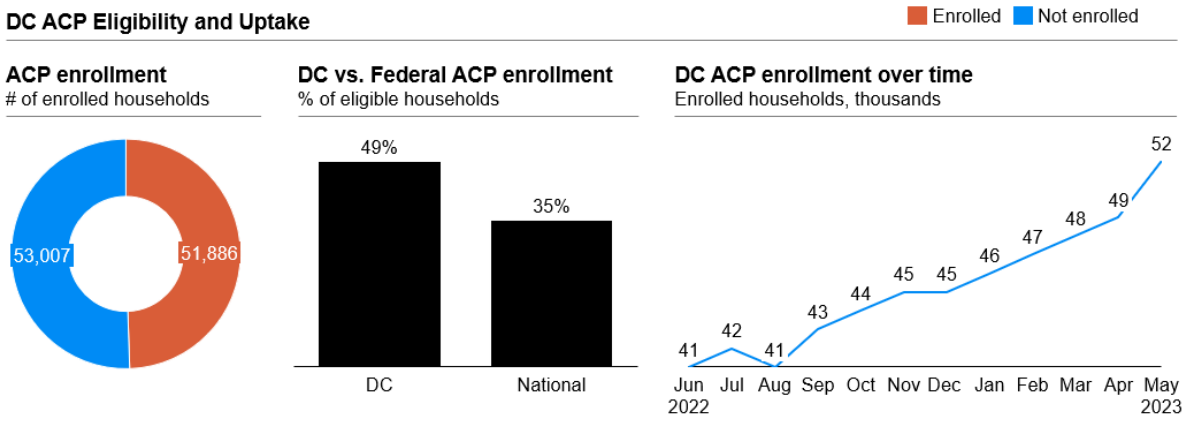
Figure 16. ACP Eligible Households in DC, by zip code



Current ACP adoption in DC

Among eligible households, 49 percent are enrolled in ACP, as compared to the national average of 35 percent. DC ACP enrollment has increased over time, rising from some 41,000 in June 2022, to about 53,000 as of May 2023 (Figure 17).

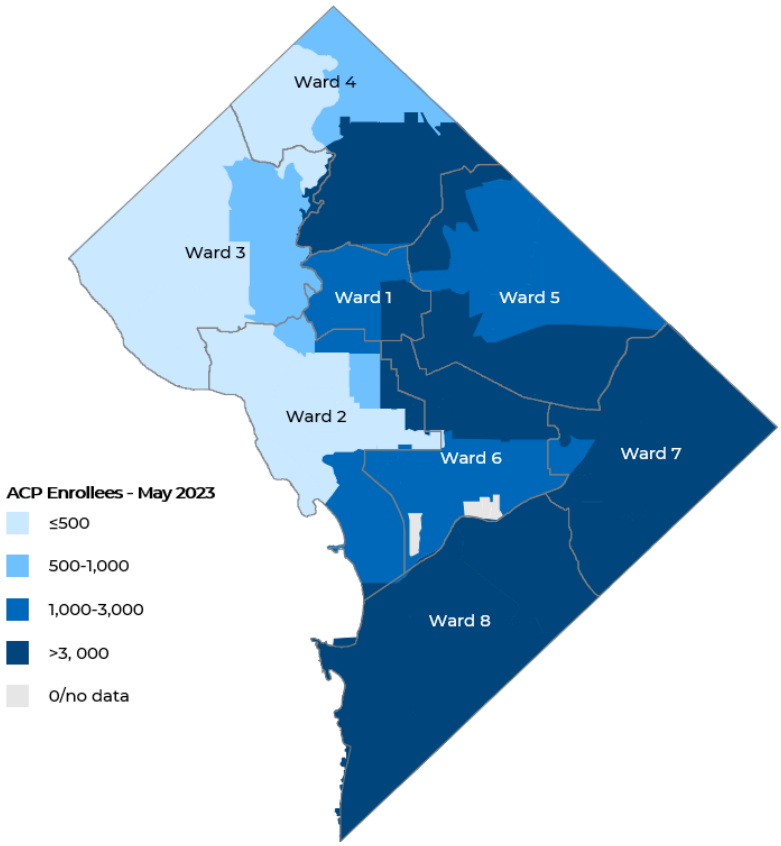
Figure 17. ACP enrollment statistics for DC, including eligibility and enrollment rate[88]



As shown in Figure 18, the number of households enrolled in ACP is highest in wards 4,5, 7 and 8, which are the areas with highest eligibility.

[88] EducationSuperHighway.org, as of July 2023

Figure 18. ACP enrollment statistics for DC, including eligibility and enrollment rate[89]



Although DC's 49 percent ACP enrollment rate is above the national average, over 50,000 households are eligible but not enrolled (Figure 17). DC SBDEO considers continuing outreach essential to getting to 100 percent ACP enrollment.

Needs and barriers to ACP enrollment

ACP enrollment in DC may be impacted by lack of awareness of ACP and myriad barriers to ACP enrollment even when awareness exists. The DC Broadband Access and Digital Equity survey results and community partners that have been engaged in efforts to drive ACP uptake have highlighted the following insights about enrollment gaps:

- **ACP awareness is low:** 59% of survey respondents report being unaware that ACP exists (Figure 19). Of those respondents that do report being aware of

[89] EducationSuperHighway.org, as of July 2023

ACP, the strongest ACP awareness is found within households with incomes lower than $30k—57% of respondents from these households report being aware of ACP.

- **Residents who are aware of ACP face enrollment barriers.** Even when aware of ACP, only 25% of DC residents are enrolled in the program, showing that many residents are not eligible to enroll, or—if eligible—are otherwise unable to enroll in the program (Figure 20). Many view the enrollment process as long and confusing, as seen by 6% of survey respondents who find the process difficult and may benefit from being walked through it. Providing application support may make it more likely for DC residents to complete the application process.
- **Residents may have unknowingly received ACP benefits.** Some listening session participants noted that when some residents attempt to sign up for ACP for their home internet subscription, they find out that they have already been enrolled in ACP and that the subsidy has been applied to their mobile phone plan after they received a free phone or wired device.

Figure 19. ACP awareness and enrollment, all respondents and covered population. DC Broadband Access and Digital Equity survey results, August – October, 2023

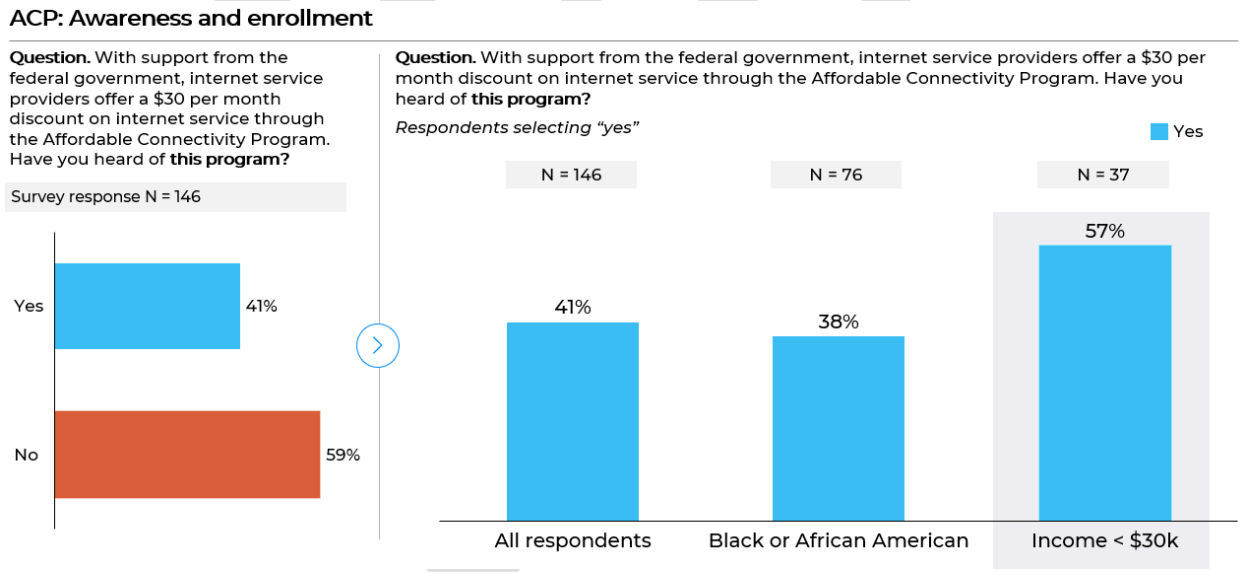
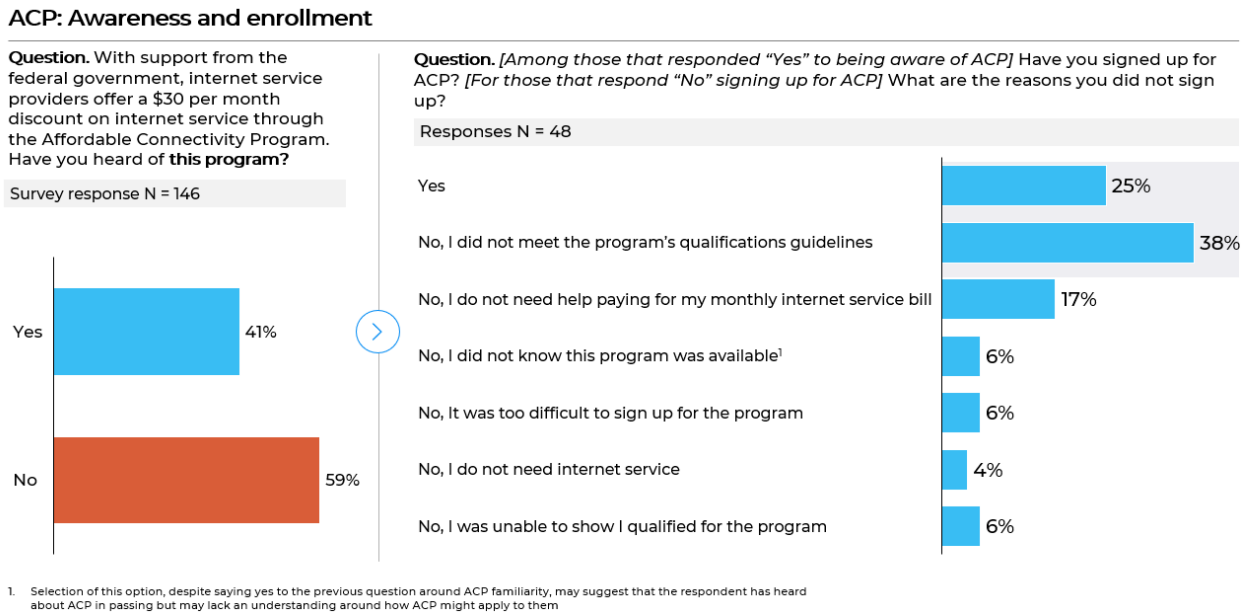


Figure 20. ACP awareness and enrollment, all respondents. DC Broadband Access and Digital Equity survey results, August – October, 2023



3.2.2.2 Increased financial assistance for low-income consumers

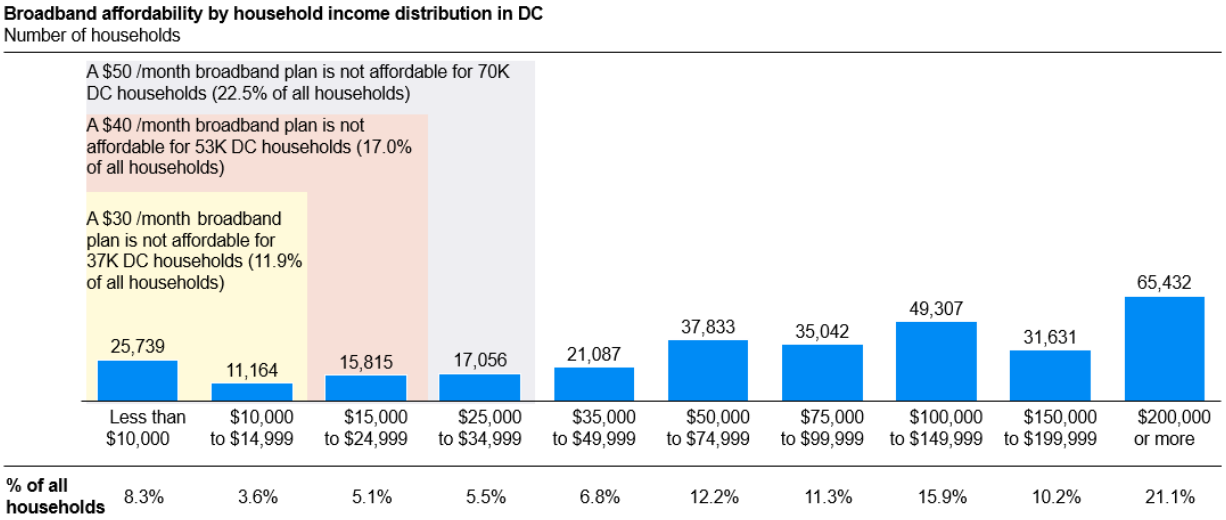
Need of financial assistance

The National Governor's Association and the Broadband Commission for Sustainable Development set a threshold of 2 percent of monthly income to consider a broadband plan affordable.[90] And in the NTIA guidance for the BEAD Initial Proposal, the recommended cost of the low-cost service option is a cost of no more than $30 per month.[91] For 11.9 percent of DC households, which is ~37,000 households, this plan is above the affordability threshold.

For 17 percent of all DC households, which is about 53,000 households, a $40 per month plan is above the affordability threshold, and for 22.5 percent of households, or about 70,000 households, a $50 per month plan is above the affordability thresholds (Figure 21).

90 https://www.nga.org/publications/broadband-affordability-resources/
91 https://broadbandusa.ntia.doc.gov/sites/default/files/2023-07/BEAD_Initial_Proposal_Guidance_Volumes_I_II.pdf

Figure 21. Broadband affordability by household income in DC[92]



Based on feedback in the DC Broadband Access and Digital Equity survey, 37 percent of respondents said they found it difficult or somewhat difficult to fit their monthly internet bill into their budget (see Figure 22). And examining the survey results by covered population shows that 53 percent of DC residents with one or more disabilities, and 48 percent of low-income DC residents found it difficult or somewhat difficult to fit their monthly internet bill into their budgets (see Figure 23).

[92] 2021 American Community Survey 5-Year estimates; https://www.nga.org/publications/broadband-affordability-resources/

Figure 22. Affordability, all respondents. DC Broadband Access and Digital Equity survey, August – October 2023

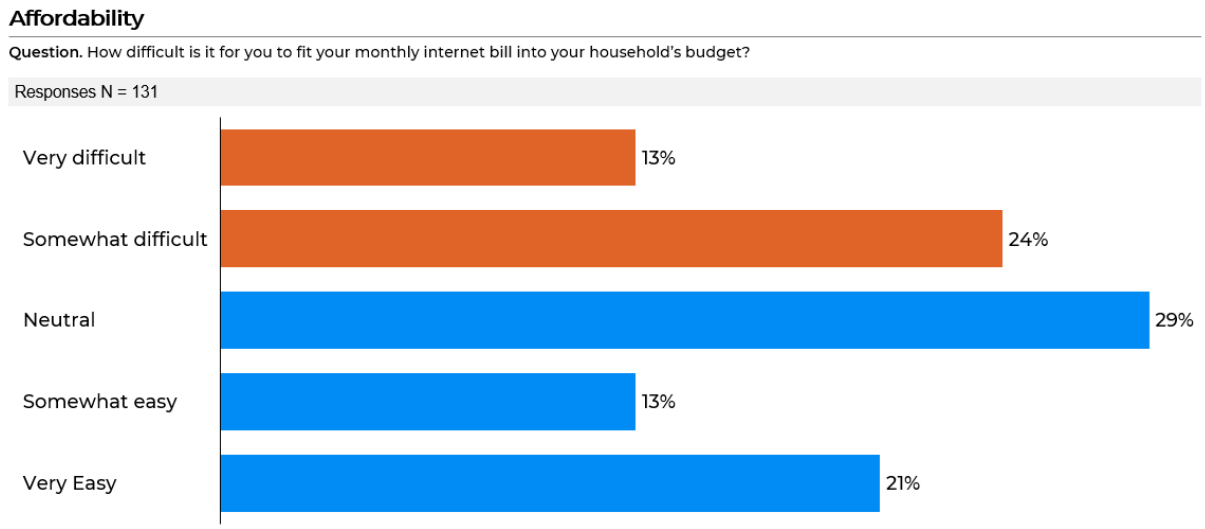
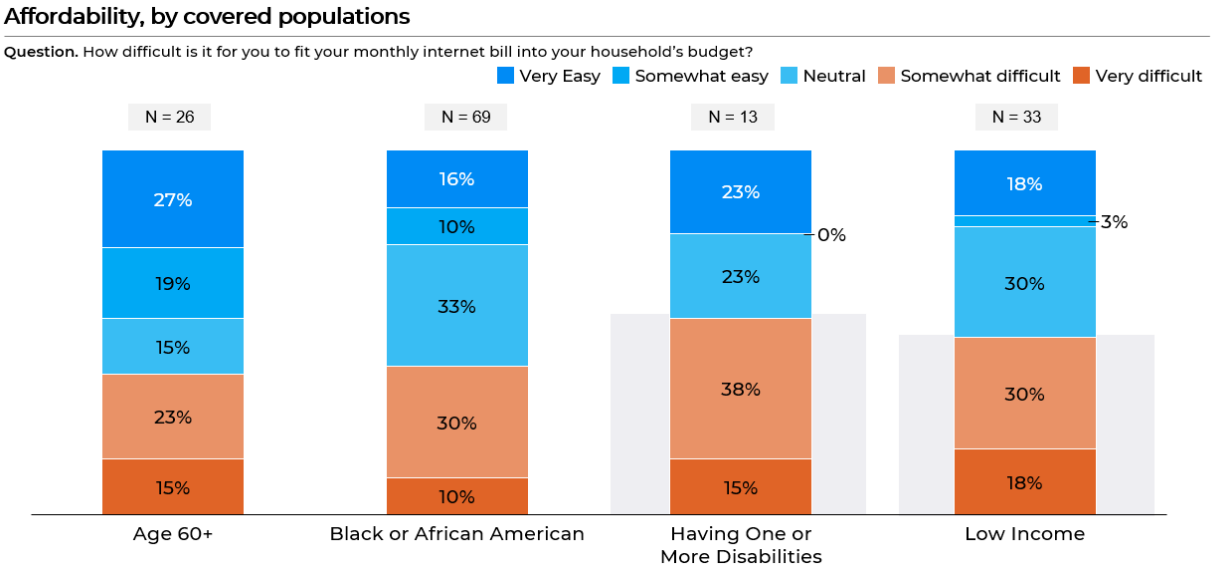


Figure 23. Affordability, by covered populations. Ease of fitting monthly internet bill into the household budget. DC Broadband Access and Digital Equity survey, August – October 2023



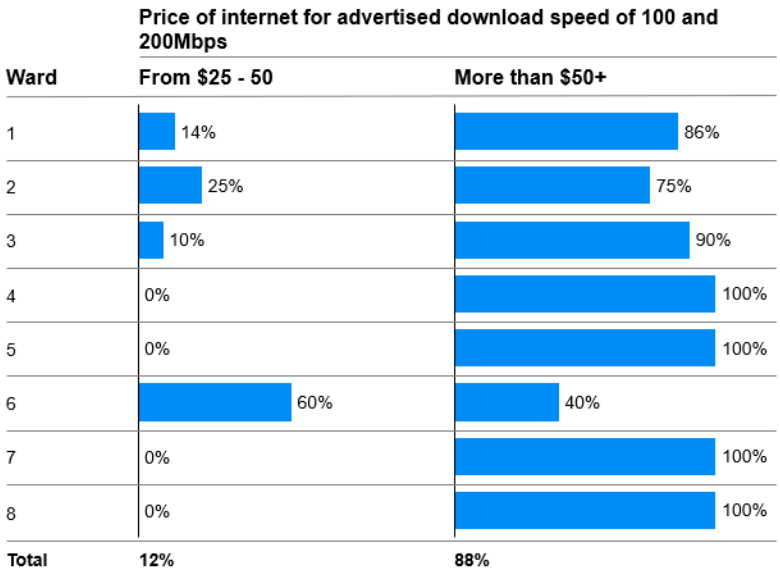
3.2.2.3 Increased options for broadband services, including a wider range of low-cost services

Current broadband pricing in DC

Using the July and August 2023 pricing available on DC providers' websites for the available speeds, the SBDEO found that for 300 Mbps download speed plans, the maximum price for non-promotional service is $60/month, while the minimum non-promotional pricing is $25/month.[93] Based on analysis of a representative sample of 203 BSLs, 61 percent of BSLs do not have access to 300 Mbps service for $30 or less. This is because the minimum price in wards 2, 5, 7, and 8 is $50, and those wards represent 61 percent of BSLs (see Figure 25).

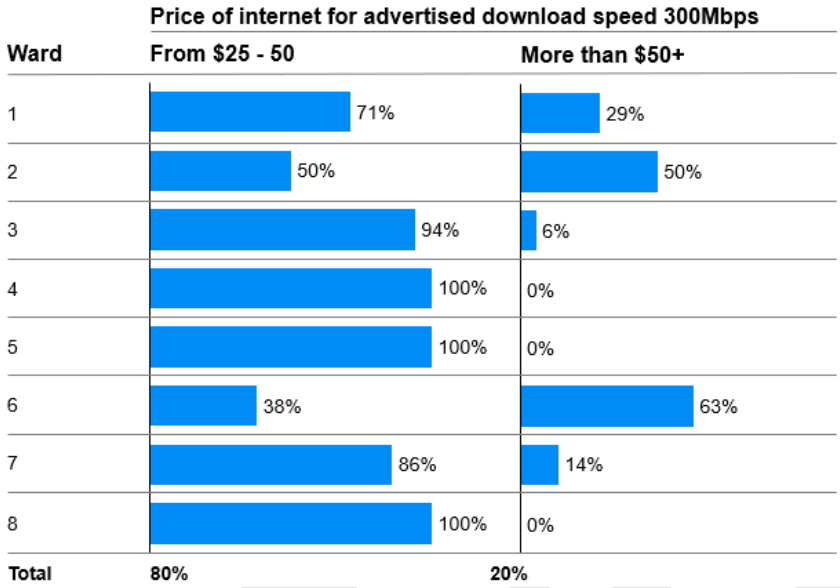
Figure 24 shows the price of internet for 100 and 200 Mbps plans. For all Wards other than Ward 6, most of these plans are more than $50 per month. In Ward 6, 60 percent of these plans are available for $25 – $50 per month. Figure 16 shows the price of internet for 300 Mbps download speed plans, where most wards have more options for $25 – $50.

Figure 24. Analysis of landscape of broadband subscription prices for 100 and 200 Mbps download speed to understand availability of affordable, reliable service[94]



[93] Provider websites, pricing data accessed July 27, 2023
[94] FCC National Broadband Map, data as of Dec 31, 2022, ISP websites

Figure 25. Analysis of landscape of broadband subscription prices for 300 Mbps download speed to understand availability of affordable, reliable service[95]



This analysis, however, may not be consistent with the experience of many District residents. The SBDEO has received feedback from digital equity practitioners and residents that residents face challenges with affordability of plans in DC. If there are legacy plans that new customers are signed up for, those plans would not be reflected in the analysis above of the prices advertised on provider websites. DC SBDEO plans to gain additional feedback on this barrier through additional engagement and feedback from residents.

DC residents' willingness to pay for internet service

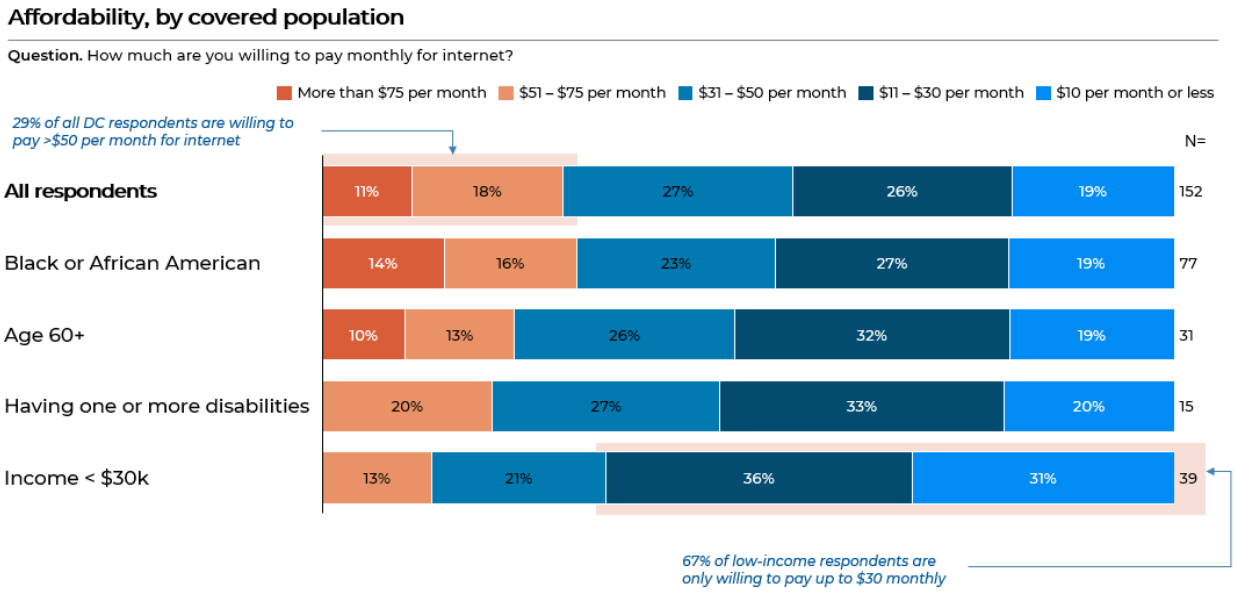
In the DC Broadband Access and Digital Equity survey, respondents were asked how much they were willing to pay monthly for internet. The results showed that only 29 percent of respondents are willing to pay more than $50 monthly for internet (Figure 26). Approximately 55 percent are willing to pay more than $30 monthly, and approximately 20 percent of respondents are willing to pay at most $10 monthly.

An examination of the preliminary survey results by covered populations showed that low income, aging, and respondents with a disability are willing to pay less for the internet. For these groups only 13 percent, 20 percent and 23 percent respectively

[95] FCC National Broadband Map, data as of Dec 31, 2022, ISP websites

were willing to spend more than $50 monthly. Among low-income DC respondents, 31 percent are willing to spend at most $10 monthly.

Figure 26. Affordability, by covered populations. DC Broadband Access and Digital Equity survey, August – October 2023



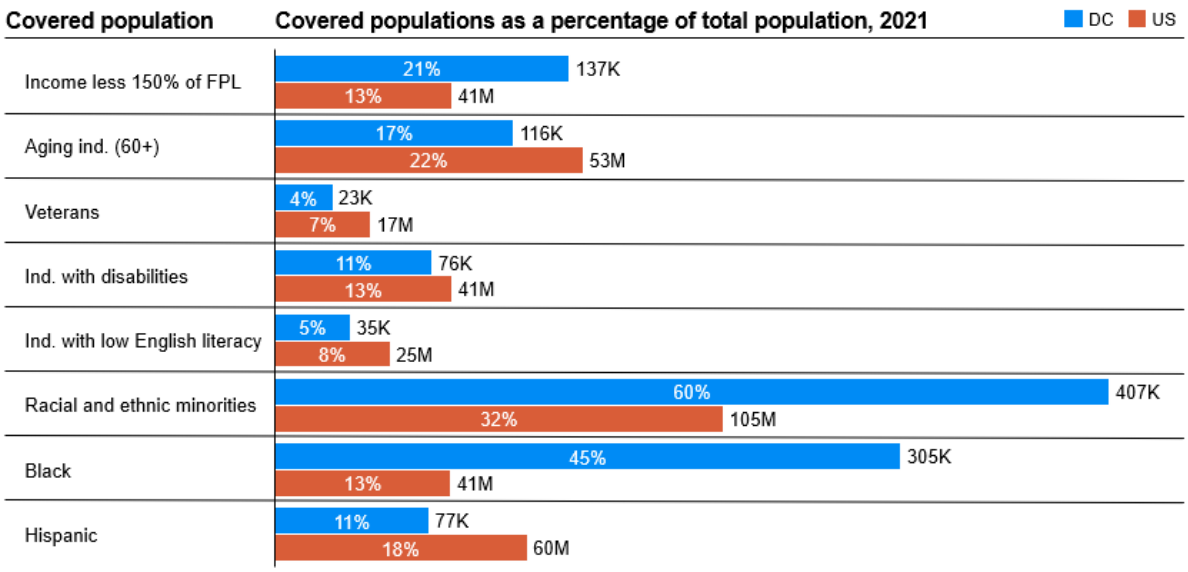
3.2.3 Covered Population Needs Assessment

This section provides the landscape of covered populations in DC, broadband adoption and device access per covered population, an assessment of barriers by covered population, and a summary of the adoption and affordability analyses, per each covered population. For the purpose of the analysis described below, "communities traditionally disengaged" was interpreted to mean covered population.

3.2.3.1 Landscape of covered populations in DC

According to the 2021 American Community Survey, DC has a greater share of racial and ethnic minorities and people with income below 150 percent of the federal poverty line compared to the US overall. However, DC has a smaller share of veterans, aging individuals (60+ years), individuals with disabilities, and individuals with low English literacy than the total US (Figure 27).

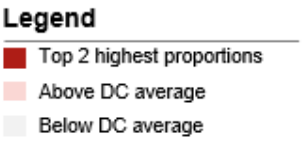
Figure 27. Covered population as a percentage of the total population for DC vs. the US[96]



With regard to the geographic areas where covered populations reside in DC, people living below 150 percent of the federal poverty line, individuals with disabilities, and racial and ethnic minorities are concentrated in Wards 7 and 8. Wards 3 and 4 have a high population of aging individuals, and individuals with low English literacy are concentrated in Wards 1 and 4 (Figure 28).

[96] 2021 American Community Survey 5-Year estimates

Figure 28. Covered populations, by ward



Share of each covered population as a proportion of total regional population

	Income less 150% of FPL	Aging ind. (60+)	Veterans	Ind. with disabilities	Ind. with low English literacy	Racial & ethnic minorities[1]
Ward 1	15%	10%	2%	8%	9%	50%
Ward 2	15%	16%	3%	7%	5%	28%
Ward 3	10%	23%	4%	8%	4%	24%
Ward 4	15%	20%	4%	11%	13%	71%
Ward 5	22%	18%	5%	14%	5%	74%
Ward 6	16%	14%	5%	9%	3%	40%
Ward 7	34%	20%	4%	16%	2%	96%
Ward 8	43%	15%	6%	16%	2%	94%
DC avg	**21%**	**17%**	**4%**	**11%**	**5%**	**60%**

1.Includes Black or African American, American Indian and Alaskan Native, Asian, Native Hawaiian and other Pacific Islander, Some other race, Two or more races, and Hispanic populations

Source: US Census 2021 ACS 5-Year, FCC Maps

3.2.3.2 Broadband adoption and device access by covered population

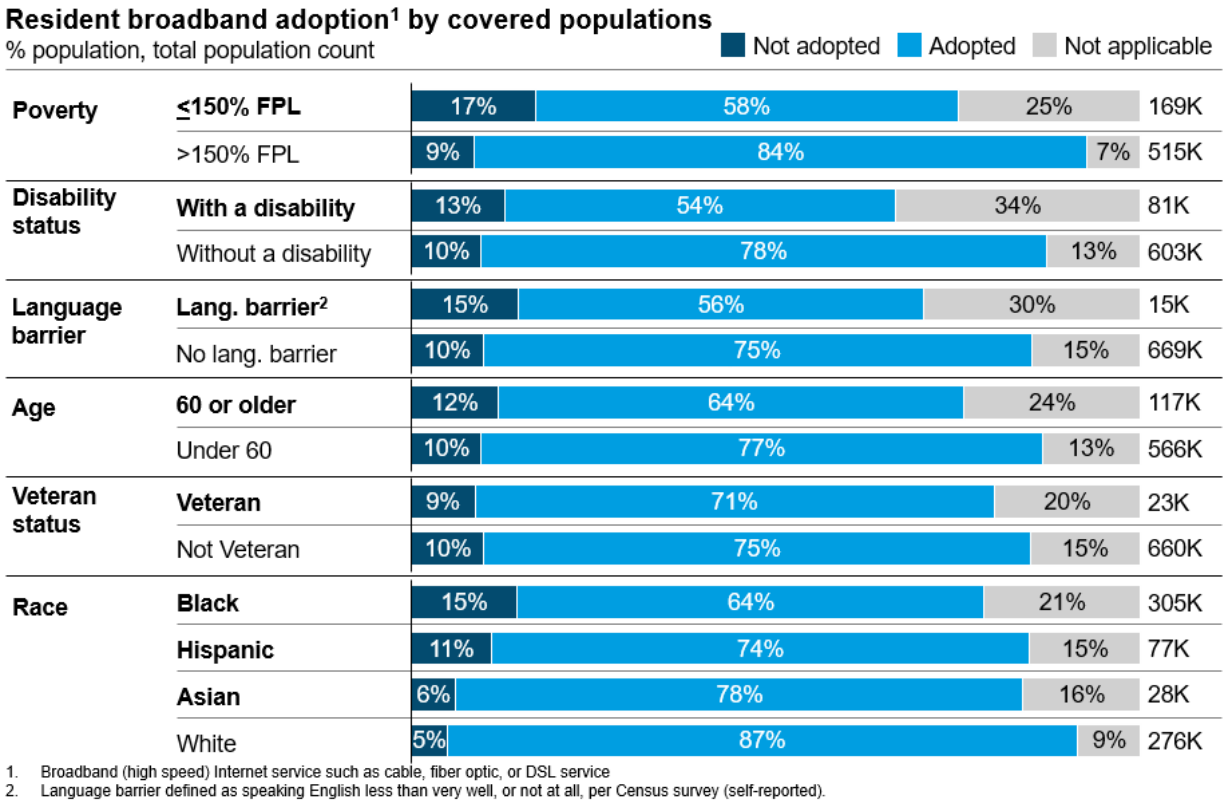
Using ACS data, the state compared the broadband adoption rate for each covered population with the state average. **Covered populations tend to have lower rates of broadband adoption than populations that are not covered**. As shown in Figure 29, every covered population in DC except veterans has lower broadband adoption rates than those not in that population. In other words, the percentage of a covered population that lacks access to broadband service such as cable, fiber optic, or DSL service nearly always exceeds the percentage for the corresponding non-covered population. For instance, 17 percent of those earning under 150 percent of the federal poverty rate are not connected, while just 9 percent of those earning over 150 percent of the federal poverty rate are not connected.

The broadband adoption gap is largest between individuals with household income below and above 150% of the federal poverty line (a 26 percentage point difference), followed by individuals with and without a disability (a 24 percentage point difference),

individuals with and without a language barrier (a 19 percentage point difference), individuals older and younger than 60 years of age (a 13 percentage point difference), and veterans and non-veterans (a 4 percentage point difference).

When looking at race, the broadband adoption rate among Black or African American populations (64%), is lower than the rates among Hispanic (74%) and Asian populations (78%). White populations have the highest broadband adoption rate among the racial groups (87%).

Figure 29. DC broadband adoption by covered population[97]



1. Broadband (high speed) Internet service such as cable, fiber optic, or DSL service
2. Language barrier defined as speaking English less than very well, or not at all, per Census survey (self-reported).

Device access

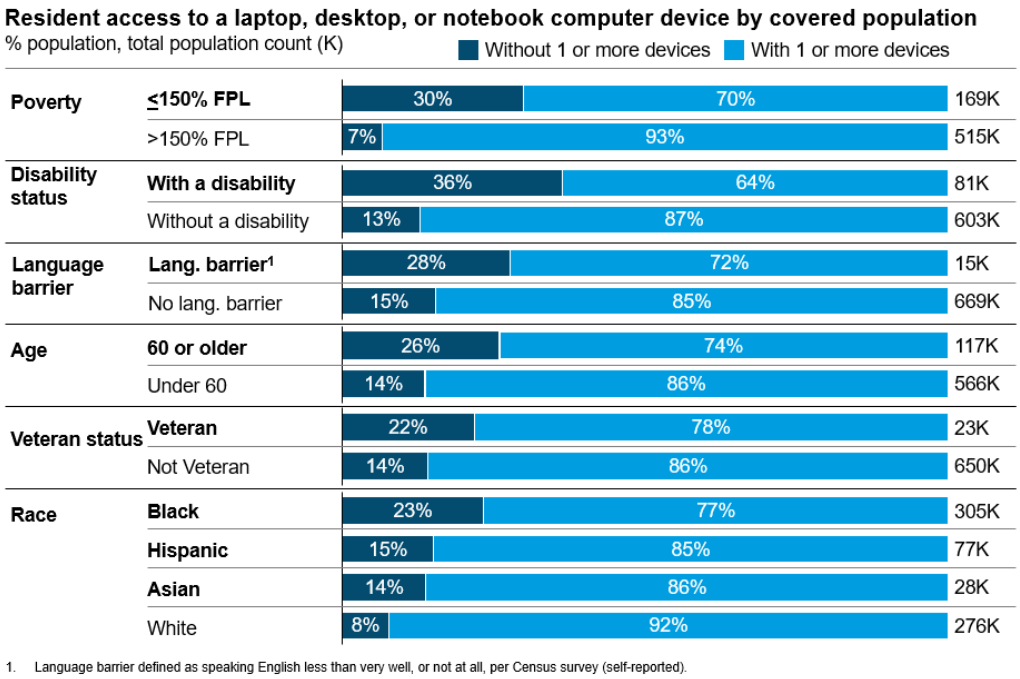
The same trend is true for device access across all covered populations, including veterans (Figure 30). **All members of covered populations have lower device access rates than members of populations that are not covered.** The largest device access gap is observed between i) individuals with household incomes below 150% of the federal poverty line (FPL), and those *above* 150% and between individuals with and

[97] 2021 American Community Survey 5-year estimates

without a disability (a 23 percentage point difference in both instances). The device access gap between individuals with and without a language barrier (a 13 percentage point differences), followed by the gap between individuals older and younger than 60 years of age is next (a 12 percentage point difference), and veterans and non-veterans (an 8 percentage point difference).

When examining the data by racial or ethnic groups, the device access rate among Black or African American populations (77% is lower than rates among Hispanic (85%) and Asian popu-lations (86%). White populations have the highest device access rate among the racial groups (92%).

Figure 30. DC device access by covered population[98]



1. Language barrier defined as speaking English less than very well, or not at all, per Census survey (self-reported).

3.2.3.3 Barriers to digital inclusion faced by covered populations

In the DC Broadband Access and Digital Equity survey questions related to barriers to internet use, respondents were asked "How often, if at all, have you ever experienced any of the following?." Residents were asked how frequently they experienced any of the following:

- I have worried about the privacy and security of my personal data.
- I have been concerned about online fraud or phishing directed at me.

[98] 2021 American Community Survey 5-year estimates

- I have worried about being able to pay my internet bill.
- I wish I knew more about how to use computers and the internet.
- I have discontinued services because it is too expensive.
- My computer has been broken so I could not use the home internet service.
- I have felt that having internet is not worth the trouble.
- I could not get internet service installed at my residence.

As shown in Figure 32, respondents most frequently worry about their digital safety at least once a week. Respondents specifically expressed concern regarding the privacy and security of their personal data at 31 percent as well as concern about online fraud and phishing at 23 percent (Figure 31). Only after concerns for digital safety, are residents then concerned about their ability to pay for their internet services—13% of respondents worry weekly or more.

Both Black or African American respondents and respondents with incomes below $30k in DC experience these barriers at higher rates than their peers. For example, Black or African American residents report being concerned about paying their internet bill at double the rate of their peers, with 20% worrying one or more times a day (Figure 32).

Figure 31. Barriers to internet use, all respondents. DC Broadband Access and Digital Equity survey, August – October 2023

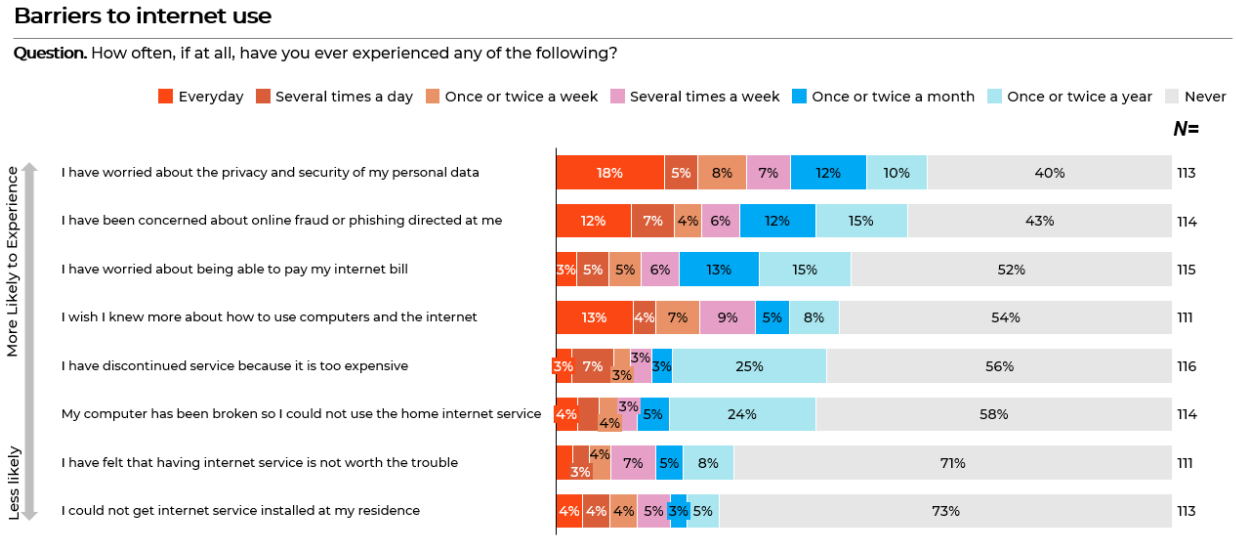
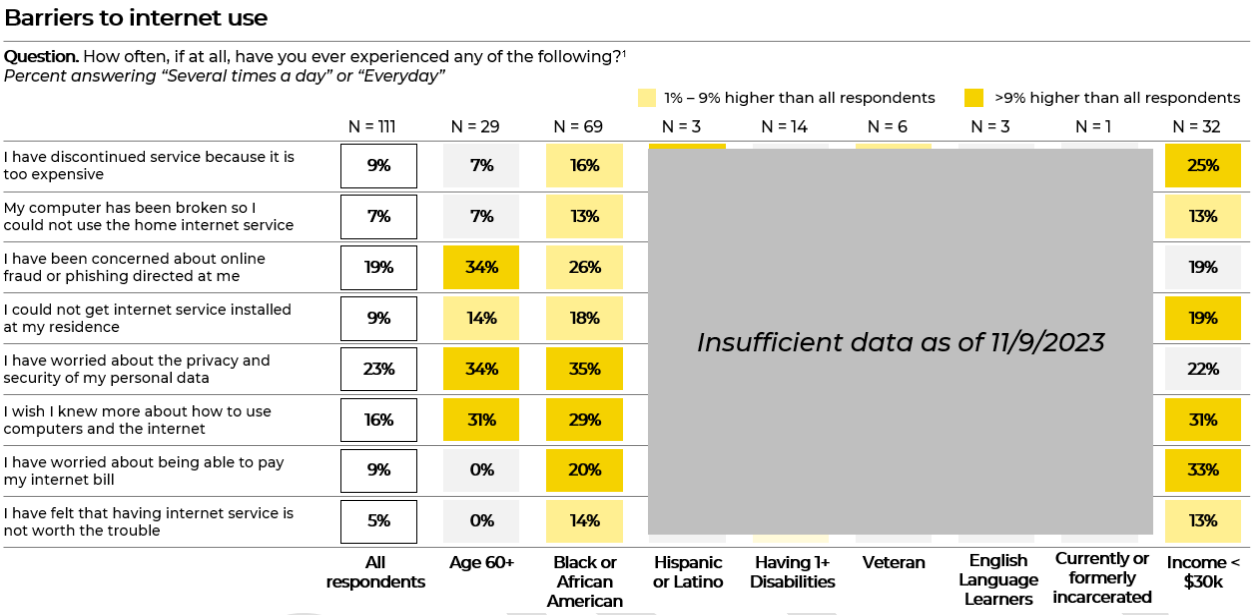


Figure 32. Barriers to internet use, by covered populations. DC Broadband Access and Digital Equity survey, August – October 2023



Additional results to be added when sufficient survey responses are received.

3.2.3.4 Summary of findings by covered population

In this section, we summarize all insights related to covered populations' needs and the barriers they face. The information in this section draws from the ACS data, the DC survey, and feedback from multiple listening sessions and state agency interviews.

Black/African Americans

Covered population: Black/African Americans		
Demographic information (ACS 5-year data, 2021)		
Size of covered population	305,000	
Wards with high share (50%+) of covered population	Ward 5, Ward 7, Ward 8	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	64%	77%

Device access	77%	83%

Needs and barriers assessment

Listening Sessions with Black and African American residents highlighted several themes:

Lower broadband adoption and access to devices: The 2021 American Community Survey indicates that Wards 7 and 8, which are predominantly inhabited by Black and low-income residents, experience significantly lower broadband adoption (63% and 61% respectively, compared to 77% in the rest of the District) and access to broadband devices (68% and 61% respectively, compared to 83% in the rest of the District). A listening session participant noted: *"I am a student at Georgetown. I typically like to work outdoors, but not many places outdoor allow you to have reliable broadband, unless I am on campus"* (Hattie Holmes Wellness Center, October 10, 2023)

More likely to experience a disruption in broadband access due to affordability challenges: The lower broadband adoption and access rates in predominantly low-income Black areas suggest affordability challenges are significant barriers. Many families rely on mobile phones for internet access due to the high cost of home internet and challenges with data plans. Affordable and accessible internet options are crucial for these families.

Insufficient access to internet programs and resources: In addition to barriers like infrastructure constraints and high costs, Black or African American residents face the challenge of not having sufficient, readily available support and resources in locations like libraries, churches, and parent centers to address the fundamental connectivity gaps. Additionally, even where programs exist, there is a lack of awareness about those programs, creating a need to deploy tactics that drive awareness about support resources.

Region-specific insights captured in listening sessions and local government digital equity plans

Local government digital equity plans: The **DC Pathways to Inclusion Report** notes that black communities have low broadband adoption rates compared to other race and age demographics and have the greatest concentration of available computers without broadband access.[99]

Listening sessions:

- An Anacostia library listening session attendee expressed the lack of quality broadband service in Ward 8: "*Anytime I am in Anacostia [Ward 8] I can never get good service.*"[100]
- A Hattie Holmes Wellness Center listening session participant expressed similar sentiment on the quality of services: "*You can't ever go to Ward 7 or 8 and get good service.*"[101]
- A participant of the Tech 101 Model Cities session highlighted not only the lack of quality service, but also the absence of broadband service in certain areas: "*In many poor Black communities, many people are either lacking or have outdated internet and they just can't connect good.*"[102]

[99] DC Pathways to Inclusion Report, 2016
[100] Anacostia Library listening session, September 2023
[101] Hattie Holmes Wellness Center listening session, October 2023
[102] Tech 101 Model Cities session, September 2023

Hispanic

Covered population: Hispanic		
Demographic information (ACS 5-year data, 2021)		
Size of covered population	77,000	
Wards with high share (10%+) of covered population	Ward 1, Ward 2, Ward 4, Ward 5	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	74%	77%
Device access	85%	83%
Needs and barriers assessment		
Listening Sessions with Hispanic residents highlighted several themes: **Internet Accessibility and Affordability:** Hispanic participants face challenges related to the accessibility and affordability of the internet. Spanish-speaking participants noted that most of do not have a reliable and fast internet connection at home, with limited and often phone-based internet service. Additionally, the cost of internet services is a significant barrier for community members, impacting their ability to access the internet effectively. Some participants found it unaffordable, while others considered it within their budget. **Reliability and Connectivity Issues:** Hispanic participants also reported issues related to the reliability and connectivity of their internet service. Recurring challenges for community members included interruptions while using streaming services like Netflix and slow internet speeds. **Limited Awareness of Digital Programs:** A common theme among Hispanic participants is their limited awareness of digital programs and support services available in their communities. Members of the community are not always able to identify specific programs or support systems designed to help them improve their digital skills or access affordable internet options.		
Region-specific insights captured in listening sessions and local government digital equity plans		
Local government digital equity plans The **DC Pathways to Inclusion Report** notes that Hispanic communities have low broadband adoption rates compared to White and Asian communities even after adjusting for socioeconomic factors.[103]		

[103] DC Pathways to Inclusion Report, 2016

Individuals with disabilities

Covered population: Individuals with disabilities		
Demographic information (ACS 5-year data, 2021)		
Size of covered population	76,000	
Wards with high share (10%+) of covered population	Ward 4, Ward 5, Ward 7, Ward 8	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	54%	77%
Device access	64%	83%
Needs and barriers assessment		
The **Disability Tech Summit** highlighted two themes: **Digital Accessibility and Inclusivity for Disabled Populations:** Learning to use new technology, especially for disabled individuals, poses a significant challenge. There is a need for more support, inclusive devices and software updates, and stronger internet to accommodate people with disabilities. Standardized accessibility regulations are required for the online environment. **Varied Internet Usage Among Disabled Individuals:** Internet usage among disabled individuals varies; some rely on it for essential functions such as assisted living technologies, while some use it for online meetings, telehealth, and staying up to date.		
Region-specific insights captured in listening sessions and local government digital equity plans		
Listening sessions: Many participants of the Disability Tech Summit hosted by the DC Department of Disability expressed the need for better support for disabled populations: "*Online platforms and new devices need to better support individuals who may be visual impaired or with a loss of sight.*"[104] "*We need to have more support for disabled populations and teaching them how to use new technology and programming.*"[105] Attendees of the Ward 7 & 8 Faith Leaders echoed similar insights*:* *"Internet and all the new technology needs to be accessible for everyone."*[106]		

[104] Disability Tech Summit, October 2023
[105] Ibid
[106] Ward 7 & 8 Faith Leaders Meeting, September 2023

Aging individuals

Covered population: Aging individuals		
Demographic information (ACS 5-year data, 2021)		
Size of covered population	116,000	
Wards with high share (20%+) of covered population	Ward 3, Ward 4, Ward 7	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	64%	77%
Device access	74%	83%
Needs and barriers assessment		

Forums dedicated to senior individuals (incl. the **Commission on Aging, Washington Senior Wellness Center)** highlighted the following core themes.

Diverse needs: Seniors are using a wide variety of tech-enabled devices, including phones, laptops, tablets, and smart home appliances, for various purposes (such as streaming, communication, news, and media), all of which contribute to their daily routines, but require a bit more tech support.

Challenges in broadband access: Seniors experience a spectrum of challenges with respect to reliable internet access, including but not limited to:

- Limited awareness about available programs and the need for assistance in setting up Wi-Fi.
- Struggles with limited bandwidth, leading to slower connectivity when using multiple devices
- High internet service costs, often acting as a barrier to access.
- Lack of technical knowledge and understanding of internet-related terminology.
- Difficulties in connecting phones to Wi-Fi, or lack of knowledge on the need of connecting to Wi-Fi

Desire for Convenient and Accessible Internet Locations: Seniors expressed a citywide need for having convenient access to internet services from various locations in the district, such as parks, buildings, libraries, and Senior Wellness Centers.

Region-specific insights captured in listening sessions and local government digital equity plans

Local government digital equity plans:

The **DC Pathways to Inclusion Report** notes that senior individuals of the District have significantly lower broadband adoption and access rates. The report suggests that particularly seniors on fixed income cannot afford the cost of in-home broadband access. It further indicates that older adults are often intimidated by broadband and digital technologies, and learning how to use them is often overwhelming. Additionally, dangers such as identity theft, predatory advertising, and viruses, are common concerns.[107]

Listening sessions:

A participant of a city internet safely listening session expressed the need for better awareness and learning on broadband access and technologies: "*I don't know anything about new technology and I don't know anything about programs that help access internet.*"[108]

An attendee of a CFSA Lived Experience listening session expressed similar needs: "*As a senior, [the city] needs to create opportunities for intergenerational learning.*"[109]

[107] DC Pathways to Inclusion Report, 2016
[108] Ward 6 Internet Safety Workshop, September 2023
[109] CFSA Lived Experience, September 2023

Veterans

Covered population: Veterans		
Demographic information (ACS 5-year data, 2021)		
Size of covered population	23,000	
Wards with high share (5%+) of covered population	Ward 5, Ward 6, Ward 8	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	71%	77%
Device access	78%	83%
Needs and barriers assessment		
An interview with the Mayor's Office of Veteran Affairs revealed the needs and barriers of the veteran population in the District intersect with low income, low literacy, senior and disabled populations. Affordability barrier: Veterans with fixed have difficulty purchasing technology devices and broadband access. Age barrier: Digital literacy amongst older vets is much lower compared to younger veterans Barriers to broadband access disrupts veterans' ability to register and manage their VA benefits, schedule, and attend medical appointments, or register for medical insurance		

Low-income individuals

Covered population: Low-income individuals
Demographic information (ACS 5-year data, 2021)

Size of covered population	137,000	
Wards with high share (20%+) of covered population	Ward 5, Ward 7, Ward 8	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	58%	77%
Device access	70%	83%
Needs and barriers assessment		

Low income levels, especially in Wards 5, 7 and 8 may hinder many underserved DC residents—who are disproportionately members of covered populations—from being able to afford a broadband subscription. Across DC, 21 percent of people are below 150 percent of the federal poverty line, with some wards well above this number. For instance, Ward 5 has 22 percent population below 150 percent, while Ward 7 has 34 percent and Ward 8 has 43 percent.[110]

This disparity is apparent across many areas of DC with 72,000 households recorded as having rent burden (defined as is spending more than 30 percent of household income on rent). Although this is observable across various parts the District, the most impacted areas are in Black and Brown communities such as Wards 5, 7, and 8 (Figure 18, above). Ward 8 shows the largest disparity with a recorded rent burden of 58 percent compared to the DC average of 44 percent.[111] In fact, 36,000 DC households are recorded having a "severe" rent burden (spending more than 50 percent of household income on rent), with Wards 5, 7 and 8 again having the highest rent burden, ranging from 4,600-to-8,300 households affected.[112]

The distribution of affordable housing in DC reflects a legacy of racially discriminatory policies, and is the long-term result of decades of redlining, according to Kathryn Zickuhr. Zickuhr's 2018 article, "Discriminatory Housing Practices in The District: A Brief History,"[113] was published by the DC Policy Center. Zickuhr wrote that jurisdictions had historically used zoning and other tools to keep certain neighborhoods comprised of low-density, single-family homes while concentrating apartment buildings in low-income areas.

In communities where the effects of redlining and rent burden are most felt, residents often struggle to afford other essentials, such as broadband. Economic disparity in these areas may contribute to broadband adoption in these wards being the lowest in the District. Adoption is 77 percent District-wide, but just 73 percent in Ward 5, 63 percent in Ward 7, and 61 percent in Ward 8.[114] As of 2021, 14.4 percent of all DC residents said they had no home internet use by anyone in the home.[115] Of these, 24 percent cited the internet being too expensive as their main reason.[116]

[110] American Community Survey 2021 5-year estimates
[111] 2019 American Community Survey, US Census Bureau
[112] Ibid.
[113] https://www.dcpolicycenter.org/publications/discriminatory-housing-practices-in-the-district-a-brief-history/
[114] American Community Survey 5 2021 5-year estimates
[115] 2021 NTIA internet use survey
[116] Ibid.

Region-specific insights captured in listening sessions and local government digital equity plans

Local government digital equity plans

The **State of the Digital Divide Report** indicates affordability continues to be a leading obstacle for people without home broadband service. Available home broadband and wireless solutions are cost prohibitive for many low-income families. As a result, the digital divide is particularly stark amongst the District's low-income, working poor, and unemployed populations. According to OCTO's Broadband Adoption Survey, low-income Internet users are significantly more likely to use Internet somewhere other than home.[117]

Listening sessions

A CFSA Lived Experiences session highlighted infrastructure and governmental Challenges, emphasizing infrastructure development should consider connectivity for low-income communities because streamlining processes to access the internet is necessary for widespread access.

An OCTO listening session highlighted barriers to internet access and digital literacy, particularly for low-income communities in DC, include limited tech training for seniors, a lack of awareness about reliable internet access points, and affordability issues. Collaborative efforts are needed to address these barriers and improve digital literacy, especially among those with limited literacy skills.

[117] State of the Digital Divide, 2015

Individuals with a language barrier

Covered population: Individuals with a language barrier		
Demographic information (ACS 5-year data, 2021)		
Size of covered population	35,000	
Wards with high share (5%+) of covered population	Ward 1, Ward 2, Ward 4, Ward 5	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	56%	77%
Device access	72%	83%
Needs and barriers assessment		
Communities with language barriers (including Spanish, Amharic, and French-speaking communities) faced the following challenges related to internet access and usage: Internet affordability and accessibility: Members of these communities often do not have reliable, fast internet connections at home, with some relying on limited, phone-based services. The cost of internet services is a significant barrier for community members, impacting their ability to access the internet effectively. Limited awareness of digital programs: Community members might not be aware of existing programs that aim to improve digital skills or provide affordable internet access. Reliability and connectivity issues: Community members experience reliability and connectivity problems with their internet services, affecting their ability to access online content		
Region-specific insights captured in listening sessions and local government digital equity plans		
Listening sessions Many members of these communities highlighted the affordability barrier: "*Do not have fast or reliable internet at home…internet's price is the biggest challenge.*" "*Everything is expensive however, I do have a personal plan on my* phone" "*Yes, I have internet, but it is not fast. It might be because of the money I pay. In Ethiopia, if you pay more, your internet is faster and vice versa*"		

Incarcerated individuals

Covered population: Incarcerated individuals

Demographic information (ACS 5-year data, 2021)		
Size of covered population	~1.6K in DC Jail; ~ 9K parole population	
Wards with high share (5%+) of covered population	n/a	
Digital equity baseline data (ACS 5-year data, 2021)		
	Covered population only	State-wide
Broadband adoption	n/a	77%
Device access	DC Jail provides incarcerated individuals with some access to tablet; and limited access an intra-net (with very limited content)	83%

Needs and barriers assessment

Insights from DC Mayor's Office of Returning Citizens:

Significant intersection between the incarcerated and returning citizen populations with low income, racial and ethnic minorities, disabled individuals.

While incarcerated, there is a need for both devices and digital skills training to improve readiness for accessing and applying for jobs, job skills, accessing essential government services, basic life skills upon release.

>90% of returning citizens return to someone else's home, and typically those homes are also underserved and may not have home internet access due to affordability challenges, and digital skills gaps.

A barrier for incarcerated populations to gaining digital skills is the low-level of skills they may have as a result of how quickly technology evolved during the time when they were incarcerated; and lower confidence / embarrassment in the depth of the need.

Digital skill needs range from the very basic, to digital skills that can improve the job readiness of formerly incarcerated individuals:

- Focus on the basic: how to work their phones, save documents, attach documents; set passwords (basic digital literacy training)
- Website development classes
- Coding; app dev
- Digital marketing
- Social media training
- Graphics

Training for the families of returning citizens is also highly valuable, and would increase the ability of the formerly incarcerated individual and his/her entire family to succeed.

Region-specific insights captured in listening sessions and local government digital equity plans
Local government digital equity plans The **State of the Digital Divide Report** states citizens returning from incarcerations typically are given very limited, if any, exposure to advanced forms of technology. They are faced with a rapidly changing, technology-dependent society with advanced, high-tech tools and applications that are vital to today's competitive economy are completely foreign and unfamiliar to some. As a result, they face obstacles to find employment, housing, and access to social services.[118]

[118] State of the Digital Divide, 2015

3 Collaboration and Stakeholder Engagement

4.1 Coordination and Outreach Strategy

This section identifies the key external stakeholders and outlines how the District plans to collaborate with them.

4.1.1 Key external collaborators

This section summarizes the partners that are engaged in the development and / or the implementation of the broadband plan, including district wide organizations and state agencies, non-profits, industry partners, and academic institutions.

Table 8. Partners

Partners	Description of current or planned role in broadband deployment and adoption
TechTogether DC (TTDC)	TechTogether DC is a values-led partnership among DC government, the non-profit community, academia, and industry working to bridge the digital divide through access, training, and opportunity. The TechTogether group has been a pillar of the stakeholder engagement process for the BEAD 5 Year Action Plan and the State Digital Equity Plan (three meetings - including an ISP summit - planned for May-Sept 2023).
Starry (TTDC pledge partner)	As part of the TTDC program, Starry is conducting the following initiative: • Starry Connect Program: help increase broadband adoption and usage for residents in public and affordable housing and support digital literacy and device access.
Ward 6 Mutual Aid (TTDC pledge partner)	As part of the TTDC program, Ward 6 Mutual Aid is conducting the following initiatives: • Serve Your City / Ward 6 Mutual Aid Digital Liberations Program: provide families with high-speed internet for the 2020-2021 school year in Wards 5, 6, 7, and 8. • Train Black organizers to procure, refurbish and distribute devices, and to provide technical support in wards 5, 6, 7, and 8. • Provide DC students with digital devices in wards 5, 6, 7, and 8.
Connected DMV (TTDC pledge partner)	As part of the TTDC program, Connected DMV is conducting the following initiative: • Connected DMV: Increase awareness of Emergency Broadband Benefit.
District Department of Transportation (DDT) (TTDC pledge partner)	As part of the TTDC program, DDT is conducting the following initiative: • Smart Street Lighting: install wireless access points and lights in streets, alleys, and other public spaces in DC.
District Department of Lighting (TTDC pledge partner)	As part of the TTDC program, District Department of Lighting is conducting the following initiative: • Internet First: brings affordable, high-speed Internet to low-income households. Provides service at $9.95 with 2 months free.

RCN (TTDC pledge partner)	As part of the TTDC program, RCN is conducting the following initiative: • Internet First: brings affordable, high-speed Internet to low-income households. Provides service at $9.95 and 2 months free provided.
Office of State Superintendent of Education (OSSE) (TTDC pledge partner)	As part of the TTDC program, OSSE is conducting the following initiative: • Internet for all: provide internet access for DC residents.
ETTE (TTDC pledge partner)	As part of the TTDC program, ETTE is conducting the following initiative: • Pilot Projects in Public Housing: deploy indoor Wi-Fi, accessible in-unit, for public housing residents at two public housing locations in Ward 6.
DC Housing Authority (DCHA) (TTDC pledge partner)	• As part of the TTDC program, DCHA is conducting the following initiatives: • Pilot Projects in Public Housing: deploy indoor Wi-Fi, accessible in-unit, for public housing residents at 2 public housing locations in Ward 6. • Resident Education and Training: provide digital literacy workshops, introductory computer skills trainings, workforce development, STEM/STEAM learning, workplace development and placement in Ward 6. • EnVision Center Training: provide basic digital literacy training workshops for residents in DCHA managed facilities in Ward 6.
Latino Economic Development Center (TTDC pledge partner)	As part of the TTDC program, the Latino Economic Development Center is conducting the following initiative: • Online Business Bootcamp: boost online presence for business owners, leveraging technology offered by Google.
Comcast (TTDC pledge partner)	As part of the TTDC program, Comcast is conducting the following initiatives: • Internet Essentials: brings affordable, high-speed Internet to low-income households. • Free Xfinity public Wi-Fi hotspots: increase access to free internet. • Lift Zones: create Wi-Fi enabled zones for students from low-income families and for residents in homeless shelters. • Affordable computers program: offering an opportunity to purchase affordable devices. • Digital skill training program: provide digital skill training online and in-person.
Gensler (TTDC pledge partner)	As part of the TTDC program, Gensler is conducting the following initiative:

	• Ending the Digital Divide in DC: increase access to devices for low income residents, with focus on wards 5, 7, and 8.
Wild Tech (TTDC pledge partner)	As part of the TTDC program, Wild Tech is conducting the following initiatives in partnership with the Department of Aging and Community Living: • Senior iPad Project: provide over 500 iPads to seniors with training and support needs across district, with focus on Wards 5, 7, and 8. • AFTRR AT&T grant: provide 2,000 computers to residents across the District, with a focus in Wards 5, 7, and 8.
Crown Castle (TTDC pledge partner)	As part of the TTDC program, Crown Castle is conducting the following initiatives: • Contribution to the DC Education Equity Fund: fund the purchase of laptops and hotspots for public school students • Crown Castle contribution to LGBT Tech: provide information, education, strategic outreach and job training to LGBT communities • Crown Castle partnership with UrbanEd: provide a paid virtual job training focused on certified IT support (cloud computing, network engineering and cybersecurity) in wards 5, 7 and 8.
DC Public Library (DCPL) (TTDC pledge partner)	As part of the TTDC program, DCPL is conducting the following initiatives: • DCPL-ECF (Emergency Connectivity Fund) program: providing devices to DC residents, leveraging ECF funding for device procurement and distribution. • Digital Navigators: help DC Public Library customers find solutions to their technology needs through focused classes and onsite and virtual help.
Department of Human Services (DHS) (TTDC pledge partner)	As part of the TTDC program, DHS is conducting the following initiative: • USDA funds, Temporary Assistance to Needy Families (TANF) workforce program: Provides laptops and job readiness training to program participants.
Byteback (TTDC pledge partner)	As part of the TTDC program, Byteback is conducting the following initiatives: • USDA funds (TANF) workforce program: Provides laptops and job readiness training to program participants • Free Digital Literacy and IT training: provide free digital literacy training to DC residents, especially Black and Brown communities.
Department of Corrections (TTDC pledge partner)	As part of the TTDC program, the Department of Corrections is conducting the following initiative:

	• Department of Corrections device program.
Department on Disability Services (DDS) (TTDC pledge partner)	As part of the TTDC program, DDS is conducting the following initiative: • DDS device project: provide devices to DC residents with disabilities.
Mayor's Office on Returning Citizen Affairs (TTDC pledge partner)	As part of the TTDC program, MORCA is conducting the following initiative: • Basic to Intermediate Computer and Software Training: provide in person and online training for underemployed adults ages 35-60 in Wards 6, 7, and 8. • Distributed Chromebooks in partnership with DC Public Library
Tech Turn up (TTDC pledge partner)	As part of the TTDC program, Tech Turn up is conducting the following initiative: • InteracTech Summer Camp: provide DCPS students in Wards 5, 6, 7, and 8 with a five-week digital literacy summer camp.
Department of Aging and Community Living (DACL) (TTDC pledge partner)	As part of the TTDC program, DACL is conducting the following initiative: • Senior Wellness Center Trainings: conduct trainings at the 6 wellness centers in the District in Wards 1, 4, 5, 6, 7 and 8. • Distributed iPads and 100 Chromebooks
DC Infrastructure Academy (DCIA) (TTDC pledge partner)	As part of the TTDC program, DCIA is conducting the following initiative: • Cisco Networking Academy: provides learning programs ranging from exploratory IT courses to career networking and programming courses in Wards 7 and 8.
Cisco (TTDC pledge partner)	As part of the TTDC program, Cisco is conducting the following initiative: • Cisco Networking Academy: provides curriculum programs ranging from exploratory IT courses to career networking and programming courses in Wards 7 and 9.
University of DC Community College (TTDC pledge partner)	As part of the TTDC program, University of DC Community College is conducting the following initiative: • DC Broadband Education, Training and Adoption (DC-BETA) : provide computer skills and education program targeted to underserved individuals.
The Washington Home (TTDC pledge partner)	As part of the TTDC program, The Washington Home is conducting the following initiative: • Expanding Seniors Tech Skills: understand technological needs and challenges of DC's older adult communities and provide training.

4.1.2 Stakeholder engagement plan

The DC SBDEO is executing a Stakeholder Engagement Plan to ensure a holistic and inclusive BEAD-SDEP process. A list of the stakeholder engagement events can be found below in Table 9.

Table 9. Events in the BEAD-SDEP Stakeholder Engagement Plan

Type of event	Events
In person	1. Anacostia Library 2. Carol Rosario International School 3. Carol Rosario International School – Amharic 4. Carol Rosario International School – French 5. Carol Rosario International School – Spanish 6. Commission on Aging 7. DC Assistive Technology Program 8. DC Dept of Disability Services 9. Digital Literacy Class 10. Hattie Holmes Wellness Center 11. Tech 101: Model Cities 12. Ward 6 Internet Safety Workshop 13. Ward 7 Faith Leaders 14. Ward 8 Faith Leaders 15. Washington Senior Wellness Center
Virtual	1. Byte Back Introductory meeting 2. Child and Family Services Agency (CFSA) Lived Experience Advisory Council 3. Cornell Wise & Associates 4. DC Dept of Health Care Finance 5. DC Infrastructure Academy 6. Digital Equity in DC Education 7. Family First DC Leaders 8. Golden Triangle Business Improvement District (BID) 9. National Collaboration for Digital Equity 10. Schools, Health & Libraries Broadband (SHLB) Coalition 11. Unidos DMV
Survey Informational Sessions	1. DC State Fair 2. Maternal Health Summit 3. Internet Safety Workshop

Type of event	Events
One-on-one interviews	1. DC Dept of Disability Services (x2) 2. DC Dept of Employment Services (DOES) 3. DC Dept of Veterans Affairs 4. DC Public Library 5. DC Workforce Investment Council (1/2) 6. Deputy Mayor for Planning and Economic Development (DMPED) 7. Mayor's Office of Returning Citizens Affairs (MORCA) 8. Office of Racial Equity 9. Office of the State Superintendent of Education (OSSE) 10. Ward 7 Councilmember 11. Ward 8 Councilmember

The Stakeholder Engagement Plan was developed with these considerations:

1. Meaningfully **engaging under-represented groups and covered populations**: Stakeholders relevant to all under-represented, covered populations were included in the Stakeholder Engagement Plan. Figure 33 and Figure 34 demonstrate how each event and interview in the plan are tied to a covered population. Ultimately, there will be at least three touchpoints with each covered population.

Figure 33. Stakeholder engagement events aligned to DC covered populations

		Covered population						
Type	**Event**	Covered household	Aging (60+)	Incarcerated	Veterans	Individuals with disabilities	Language barrier	Racial / ethnic minorities
In-person Sessions	Anacostia Library	✓		✓	✓			✓
	Carol Rosario International School	✓						✓
	Carol Rosario International School – Amharic	✓					✓	✓
	Carol Rosario International School – French	✓					✓	✓
	Carol Rosario International School – Spanish	✓					✓	✓
	Commission on Aging	✓	✓					✓
	DC Assistive Technology Program		✓			✓		✓
	Dept of Disability Services		✓			✓		✓
	Digital Literacy Class		✓					✓
	Hattie Holmes Wellness Center				✓	✓		✓
	Tech 101: Model Cities		✓					✓
	Ward 6 Internet Safety Workshop		✓					✓
	Ward 7 Faith Leaders	✓	✓	✓	✓	✓		✓
	Ward 8 Faith Leaders	✓	✓	✓	✓	✓		✓
	Washington Senior Wellness Center		✓		✓			✓

		Covered population						
Type	**Event**	Covered household	Aging (60+)	Incarcerated	Veterans	Individuals with disabilities	Language barrier	Racial / ethnic minorities
Virtual Sessions	Byte Back Introductory meeting	✓						
	Child and Family Services Agency (CFSA) Lived Experience Advisory Council	✓	✓					✓
	Cornell Wise & Associates					✓		
	DC Dept of Health Care Finance	✓	✓					✓
	DC Infrastructure Academy	✓						✓
	Digital Equity in DC Education	✓						✓
	Family First DC Leaders							✓
	Golden Triangle Business Improvement District (BID)							✓
	National Collaboration for Digital Equity							
	Schools, Health & Libraries Broadband (SHLB) Coalition							
	Unidos DMV						✓	✓
Survey Informati-onal Sessions	DC State Fair						✓	✓
	Maternal Health Summit	✓	✓	✓	✓	✓	✓	✓
	Internet Safety Workshop		✓					✓

Figure 34. One-on-one interviews aligned to DC covered populations

		Covered population						
Type	**Event**	Covered household	Aging (60+)	Incarcerated	Veterans	Individuals with disabilities	Language barrier	Racial / ethnic minorities
One on One Inter-views	DC Dept of Disability Services (x2)		✓			✓		✓
	DC Dept of Employment Services (DOES)							
	DC Dept of Veterans Affairs				✓			
	DC Public Library	✓						✓
	DC Workforce Investment Council (1/2)	✓						✓
	Deputy Mayor for Planning and Economic Development (DMPED)							
	Mayor's Office of Returning Citizens Affairs (MORCA)							
	Office of Racial Equity							
	Office of the State Superintendent of Education (OSSE)	✓						✓
	Ward 7 Councilmember							
	Ward 8 Councilmember							

2. **Engaging with diverse stakeholder groups**: Stakeholders from different types of entities were included in the Stakeholder Engagement Plan (e.g., government entities, internet service providers, other private companies, residents, non-profits, and community organizations). Government agencies were prioritized if they directly engage with covered populations (e.g., Mayor's Office on Returning Citizen Affairs) or if they have stated broadband priorities and initiatives (e.g., DC Public Library). These agencies are included in the Stakeholder Engagement Plan:

    a. DC Public Library
    b. DC Dept of Disability Services (x2)
    c. DC Dept of Employment Services (DOES)
    d. DC Dept of Veterans Affairs
    e. DC Public Library
    f. DC Workforce Investment Council
    g. Deputy Mayor for Planning and Economic Development (DMPED)
    h. Mayor's Office of Returning Citizens Affairs (MORCA)
    i. Office of Racial Equity
    j. Office of the State Superintendent of Education (OSSE)
    k. Ward 7 Councilmember
    l. Ward 8 Councilmember

Figure 35 and Figure 36 demonstrate how each stakeholder engagement group is to be reached via multiple touchpoints.

Figure 35. Summarized engagement plan for government entities

Stakeholder group	Engagement methods	Volume of activities
Government entities	• In-person Sessions	• 1 session with Commission on Aging • 1 session with DC Assistive Technology Program • 1 session with DC Dept of Disability Services
	• Virtual Sessions	• 1 session with Child and Family Services Agency (CFSA) • 1 session with DC Dept of Health Care Finance • 1 session with DC Infrastructure Academy • 1 session with Digital Equity in DC Education • 1 session with Golden Triangle Business Improvement District (BID) • 1 session with Family First DC Leaders • 1 session with National Collaboration for Digital Equity • 1 session with Unidos DMV
	• Survey Informational Sessions	• 1 survey in collaboration with DC State Fair • 1 survey in collaboration with DC Maternal Health Summit
	• One-on-one Interviews	• 2 interviews with DC Dept of Disability Services • 1 interview with DC Dept of Employment Services (DOES) • 1 interview with DC Dept of Veterans Affairs • 1 interview with DC Public Library • 1 interview with DC Workforce Investment Council • 1 interview with Deputy Mayor for Planning and Economic Development (DMPED) • 1 interview with Mayor's Office of Returning Citizens Affairs (MORCA) • 1 interview with Office of Racial Equity • 1 interview with Office of the State Superintendent of Education (OSSE) • 1 interview with Ward 7 Councilmember • 1 interview with Ward 8 Councilmember

Figure 36. Summarized engagement plan for service providers, other private companies, residents and organizations that serve them, and non-profits and community organizations

Stakeholder group	Engagement methods	Volume of activities
Service providers	• Survey Informational Sessions	• 1 workshop focused on Internet Safety
Other private companies	• Virtual Sessions	• 1 session with Cornell Wise & Associates
Residents and organizations that serve them	• In-person Sessions	• 1 workshop with Ward 6 leaders focused on internet safety • 2 sessions with Wards 7 & 8 Faith Leaders
Non-profits and community organizations	• In-person Sessions	• 1 session with Anacostia Library • 1 session with Byte Back • 4 sessions with Carol Rosario International Schools • 1 class focused on digital literacy • 1 session with Hattie Holmes Wellness Center • 1 session with Washington Senior Wellness Center • 1 session with Tech 101 focused on model cities
	• Virtual Sessions	• 1 session with Schools, Health & Libraries Broadband (SHLB) Coalition

3. **Using multiple awareness and participation mechanisms**: To drive awareness, stakeholders are being engaged through several modes of communication (e.g., online, and written surveys, in-person forums, live virtual webinars, one-on-one interviews with government leaders). The DC SBDEO is also using posters in local CAIs, emails from trusted community leaders and organizations, social media, and press releases.
4. **Full geographic coverage, addressing all wards, with a priority on wards with broadband and digital equity gaps**: All wards are being invited to attend in-person and virtual sessions. Wards with a high concentration of covered populations, or with low broadband adoption and device access (e.g., Wards 1, 4, 5, 7, and 8) have multiple in person events, planned with local community partners.
5. **Transparency of the processes**: An overview of all opportunities to engage is being published on the DC SBDEO website and is being shared in paper formats in local CAIs.

4 Implementation

5.1 Implementation Strategy and Key Activities

Core implementation activities have been determined based on the vision, goals, and objectives outlined in Section 2. These activities will address existing digital equity gaps within the District and include:

1. **State-led programming** such as a telehealth pilot program, Tech 101 workshops, a digital navigators program, and Affordable Connectivity Program (ACP) outreach
2. **Public-private partnerships** such as DC Tech Hubs, omni-channel tech support and a break/fix ecosystem, and device-lending and distribution programs

3. **Digital Equity Grant program**
4. **Stakeholder engagement.**

These core activities are detailed in the following sections.

As required by the Bipartisan Infrastructure Law, this State Digital Equity Plan will be evaluated and updated by leveraging, analyzing, and synthesizing the tracking and reporting described in the sections below.

5.1.1 State-led programming

The DC State Broadband and Digital Equity Office (SBDEO) currently runs multiple programs to advance digital equity in the District, including partnerships with other state agencies. As part of the implementation strategy, the DC SBDEO may use funds to implement the State Digital Equity Plan, to scale existing programming (e.g., Tech 101 workshops, ACP outreach, and other programs described in the asset inventory in Section 3.1), and to collaborate with other state agencies including universities on new programming and research (e.g., a telehealth pilot program and a digital navigators program, longitudinal research on impact of programming).

To ensure that these activities are sustainable and effective, the DC SBDEO will:

- Secure additional sources of federal or local funding to maintain current programs.
- Select partners with expertise and community knowledge to share resources and to deliver programs effectively.

To ensure that these activities are regularly evaluated and updated, the DC SBDEO plans to:

- Define and regularly track KPIs for each program and tie them to the KPIs defined for the DC State Digital Equity Plan.
- Periodically survey program participants for feedback and suggestions on program improvement.

5.1.1.1 Telehealth pilot program

Research suggests that telehealth can be equivalent to, or more clinically effective than, in-person care.[119] The benefits of telehealth include increased patient satisfaction, efficient and high-quality care, and lower costs.[120]

The DC SBDEO aims to support programs that can improve outcomes for covered populations by partnering with DC's Department of Health (DC Health), and potentially with local universities, to expand access to telehealth across the District in a telehealth pilot program. Given the two agencies' common focus on increasing healthcare opportunities and achieving health equity in DC, the proposed partnership would ideally provide additional healthcare options to historically disadvantaged communities with limited access to adequate health insurance and medical care.[121] The options included in the state-led telehealth pilot could range from primary care to expanded treatment opportunities in areas such as mental health.

Pilot objectives may include:

- Providing equipment for telehealth services and facilities
- Ensuring access to reliable devices and internet service with the bandwidth necessary for real-time interaction between patients and healthcare professionals
- Providing digital learning and/or digital navigator support to help participants use new devices and applications
- Increasing the use of, and satisfaction with, remote healthcare among covered populations through awareness and education programs
- Providing real-time access to mental health counselors for K-12 students in the school district.

5.1.1.2 Tech 101 workshops

The DC SBDEO plans to continue its current Tech 101 workshops. These digital skills workshops are free for DC residents and hosted across the District. The DC SBDEO currently estimates that 120,000-130,000 DC workers may have at most "limited"

[119] https://pubmed.ncbi.nlm.nih.gov/34184580/
[120] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7577680/
[121] Health Equity Report for the District of Columbia (DC HER) 20181

digital literacy skills,[122] but a 2021 assessment of the number, type, and capacity of digital skills programs in DC showed a capacity of just 34,000. Skills programming is clearly needed, particularly in Wards 5, 7, and 8.[123]

Current workshop topics include:[124]

- **Smartphone 101**: This workshop helps participants to develop a basic understanding of web-enabled mobile devices. Topics include text messaging, downloading apps, accessing the internet, and setting privacy restrictions.
- **Social Media 101:** This workshop teaches participants how to use social media. Topics include common uses of social media, popular platforms, frequently used terms, and other useful instruction.
- **Cybersecurity Awareness:** This workshop teaches participants how to stay safe online. Topics include important definitions, protecting personal information, tips for browsing safely, and advice for parents who want to protect their children online.

In addition to the above sessions, specialized training sessions for small and large groups are available throughout DC. These sessions give residents an opportunity to ask for help with specific topics that may be unique to them and their community. If ongoing funding is secured for this program, and it is scaled up as part of the implementation of the State Digital Equity Program (SDEP), workshops could be held more frequently, the topics covered could be expanded, and specialized training could be developed for small and large groups.

5.1.1.3 Digital navigators program with DC public libraries

Digital navigators are trusted community resources who help to resolve basic technology issues. The DC public library system has a digital navigator program at four libraries. The program offers support for computers, laptops, tablets, and phones, as well as for email and internet use, online applications and forms, PDFs and printing, and other topics.[125]

[122] https://nationalskillscoalition.org/wp-content/uploads/2020/12/Digital-Skills-Racial-Equity-Final.pdf
[123] TechTogether DC 2021 analysis of digital skills training capacity by Ward
[124] https://octo.dc.gov/page/technology-training
[125] https://www.dclibrary.org/using-the-library/digital-navigators

In partnership with the DC SBDEO, this program could expand to additional library locations, including a call center where residents could talk to digital navigators from their homes rather than visiting a library in person. Support could be offered in multiple languages.

5.1.1.4 ACP outreach

The DC SBDEO has an existing ACP strategy that is funded by the ACP Outreach Grant Program and entails hosting in-person enrollment events, digital and print advertisements, and using residents' benefits portal homepage (the page residents use to apply for TANF and other essential benefits). The plan includes offering in-person enrollment assistance in targeted neighborhoods to reach low-income residents, minority residents, and other hard-to-reach groups. All local internet service providers and relevant community-based organizations will be present to simplify the sign-up process.

The program's goal is to increase ACP sign-ups for the following groups:

- Individuals who received devices through a library partnership
- Youths and members of covered populations who are residents of Wards 5, 7, and 8.

Scaling and continuing this program could involve increasing the number of events as well as increasing the volume and frequency of digital and print advertisements.

5.1.2 Public-private partnerships

Through stakeholder engagement efforts, multiple innovative ideas for:

- Increasing digital literacy, digital skills, online privacy, cybersecurity, accessibility, and inclusivity
- Expanding access to devices and broadband and giving residents easy access to resources that would allow them to better engage in digital life.

To make these ideas a reality, the DC SBDEO plans to work through public-private partnerships, including but not limited to:

1. DC Tech Hubs
2. Omni-channel tech support and break/fix ecosystem

3. Device-lending and distribution program

To ensure that these activities are sustainable and effective, the DC SBDEO plans to:

- Select public and private partners who have the expertise and community knowledge to share resources and to deliver programs effectively. Public sector partners may include other DC agencies and universities.
- Collaborate with partners who can contribute resources (financial and otherwise) to continued efforts.

To ensure that these activities are regularly evaluated and updated, the DC SBDEO will:

- Define and regularly track KPIs for each program and tie those KPIs to the KPIs defined for the DC State Digital Equity Plan.
- Periodically survey program participants for feedback and program iteration.

5.1.2.1 DC Tech Hubs

"DC Tech Hubs" could serve as accessible, welcoming spaces that meet DC residents' broadband and digital inclusion needs. Tech hubs are physical, public spaces that would be primarily located in Wards 5, 7, and 8 (the areas of highest need with the lowest broadband adoption rates and the lowest rate of access to devices) and would serve covered populations.[126] Tech hubs present a great opportunity to partner or co-invest with a private company.

The physical spaces would include:

- Small study rooms and workspaces equipped with internet-connected devices and multi-media technology for remote learning
- Private call areas that are suitable for telehealth appointments or other private conversations
- Large-group training rooms outfitted for in-person and virtual skills development courses for adults
- Collaborative community and event space

[126] 2021 American Community Survey 5-Year estimates

- High-speed Wi-Fi
- Hours allowing for community use.

Programming may include:

- Training for staff/volunteers to become digital navigators who could assist community members in internet adoption, device use, software use, applications, and the internet
- Broadband sign-up assistance and programs that provide technology support
- Multi-lingual outreach to support adoption and digital literacy
- User training in cybersecurity, privacy, and other digital safety matters
- Digital literacy/upskilling (from beginner-level to advanced)
- Computer science, coding, and cybersecurity education programs
- A device-lending library and device demonstrations
- Resources and courses for small businesses (with topics such as "how to build a website" and "how to grow a social media presence").

5.1.2.2 Omni-channel tech support and break/fix ecosystem

In partnership with the District of Columbia and private organizations, a responsive, omni-channel customer service center could be set up to serve as a "one-stop shop" for all residents. This program would be a step toward a mature ecosystem in DC for affordable tech repair and refurbishing services. Participants would better understand how to *use, trouble-shoot,* and *fix* their devices, and residents would have a way to maintain and service their devices – especially devices distributed through the device-lending and distribution program described in Section 5.1.2.3. This solution is considered to be "omni-channel" because residents would be able to get live help in person or by phone, and they could drop off their devices for repair.

5.1.2.3 Device loan/distribution programs

DC has existing device distribution and lending programs, such as the recently piloted DC Public Library device distribution program, which has distributed over 8,000 Chromebooks to residents, and the Department of Aging and Community Living's Senior iPad program. (See Section 3.1.4 for a full list.) In cooperation with private

partners, DC could assist the 17 percent of residents without access to a device, particularly those who belong to covered populations.[127]

In one potential model for this program, companies and residents could donate their old devices. In partnership with sponsoring companies and non-profits, the devices could be refurbished and lent or distributed to residents in need.

Due to the cost of devices, private partnership, and guidelines for determining residents' qualifications would be necessary. Devices could be distributed through an online ordering system, through non-profits and other partners, or through tech hubs (Section 5.1.2.1). To ensure sustainability, devices could also be offered at low cost, and subsidized repairs would be available. Residents could choose the type of device they would like to use (e.g., an iPad or a Chromebook), and devices could come pre-loaded with relevant apps and bookmarks (such as a bookmark for DC's essential services).

5.1.3 DC digital equity grant program

The DC SBDEO recognizes that many local and community organizations are already actively engaged in digital equity work with various covered populations throughout DC. To support and enable DC residents to further benefit from the work already underway, the SBDEO will use a portion of BEAD funding to launch a Digital Equity Grant Program.

To ensure an effective program, the SBDEO will conduct a fair, open, equitable, and competitive selection process that prioritizes the programming most needed by DC's covered populations and that has stated community support. While each sub-grantee's approach and focus may differ, the program's outcomes are intended to support and expand digital equity initiatives across the District.

Eligible sub-grantees may include (but are not limited to) community and economic development agencies, educational institutions and programs, and nonprofit organizations. Both new and existing partners are encouraged to participate. The

[127] 2021 American Community Survey, 5-year estimates

selection process will encourage the participation of minority-owned businesses and other socially or economically disadvantaged, individually owned businesses.

To qualify for a grant, potential sub-grantees should:

- Have a clear plan for measurable impact, and the data and metrics they will track to show the program's progress.
- Demonstrate relevant experience and expertise through proven success in broadband and digital equity programs or through innovative ideas.
- Have a community presence – with strong relationships in the population they intend to serve – and community support for the application.
- Have access to funding outside DC digital equity grant programs to ensure sustainability, and/or have a plan to achieve sustainability.

Potential programming that may be funded includes:

- User training in cybersecurity, privacy, and other digital safety matters
- Remote learning or telehealth services/facilities
- Digital literacy/upskilling (from beginner-level to advanced)
- Computer science, coding, and cybersecurity education programs
- Broadband sign-up assistance and programs that provide technology support
- Multi-lingual outreach to support adoption and digital literacy
- Prisoner education to promote pre-release digital literacy, job skills, online job acquisition skills, etc.
- Digital navigators.

To ensure that subgrantees' activities are sustainable and effective, the DC SBDEO plans to take the following measures:

- Require sub-grantees to demonstrate their qualifications for digital equity funding, including:

    - The ability to carry out activities funded by the subgrant competently and in compliance with all applicable federal, Eligible Entity, and local laws.
    - The financial and managerial capacity to meet the subgrantee's commitments under the subgrant and the requirements of the program.
    - The technical and operational capability to provide the services promised in the subgrant in the manner contemplated by the subgrant award.
- Provide technical assistance to potential sub-grantees.

To ensure that subgrantees' activities are regularly evaluated and updated, the DC SBDEO plans to adopt the following mechanisms:

- Require potential subgrantees to define and regularly track KPIs for each program and tie them to the KPIs defined for the DC State Digital Equity Plan.
- Oversee and regularly audit sub-grantees' activities (e.g., require reports from grant awardees on their program's progress and success).
- Require sub-grantees to collect feedback from program participants and incorporate the feedback into their reporting.

The DC SBDEO may conduct site visits and supplemental interviews and surveys of participants to further assess programs' impact.

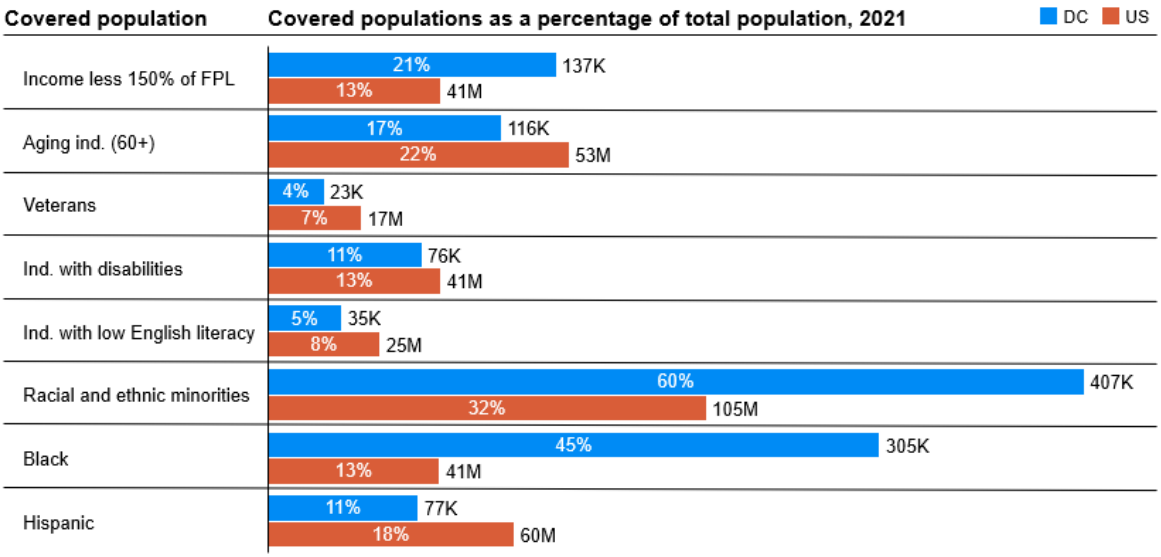
5.1.4 Stakeholder engagement

Critical to designing, executing, refining, and improving an effective digital equity program is feedback from stakeholders. This feedback must first come from the residents whom the SBDEO seeks to enable, especially covered populations; of its total population, DC has higher percentages of low-income residents, racial and ethnic minorities, and Black individuals than the overall US does (Figure 37[128]). Feedback should also be gathered from the multiple resident groups, non-profits, and other community organizations whose priorities align with the DC SBDEO's vision for

[128] 2021 American Community Survey, 5 Year Estimates

broadband access and digital equity, as well as from government agencies, ISPs, private businesses, and academic institutions. To ensure that all core activities and

Figure 37. Covered populations as a percent of DC population vs. US population, 2021



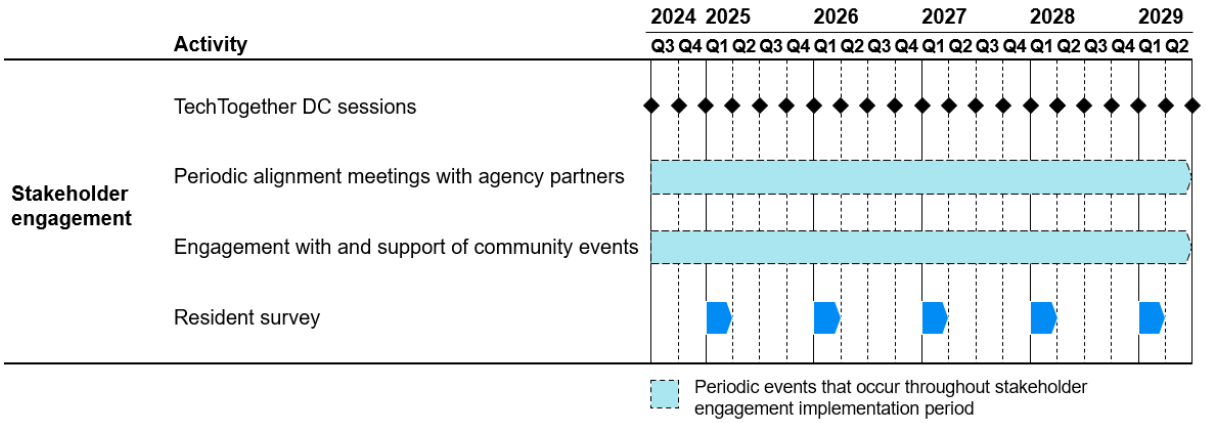
strategies are implemented with a holistic view of the community and stakeholders, the DC SBDEO will continue to engage stakeholders throughout the implementation period.

Stakeholders will be engaged through the following channels during the implementation process:

1. **TechTogether DC:** TechTogether DC is a values-led partnership among the DC government, non-profits, academia, and the broadband industry. The partnership works to bridge the digital divide by offering access, training, and opportunity. TechTogether has been a pillar of the stakeholder engagement process for the BEAD Five-Year Action Plan and the State Digital Equity Plan. As shown in Figure 38 below, the SBDEO plans to host bi-monthly TechTogether DC meetings through the end of 2024.
2. **DC SBDEO engagement with and support of community events:** As implementation proceeds, the SBDEO will actively engage with the community and provide opportunities for live feedback.

3. **Periodic alignment meetings with agency partners:** The SBDEO will have regular touchpoints with government agencies that have aligned priorities or serve as partners on initiatives.
4. **Regular resident surveys, with a focus on covered populations:** The SBDEO will regularly survey residents, targeting covered populations and Wards 5,7, and 8. This survey will measure residents' satisfaction with programs (in alignment with Goal #2 and subsequent objectives) and explore digital literacy topics.

Figure 38. BEAD and SDEP stakeholder engagement implementation timeline



To ensure that this activity is sustainable and regularly evaluated, the DC SBDEO will adhere to the above calendar (Figure 38), which incorporates regular evaluations. Effectiveness will be measured by regular survey results.

Timeline

Figure 39 below shows the overall timeline of the BEAD Program and the State Digital Equity Plan.

Figure 39. BEAD and SDEP 2023-2029 timelines

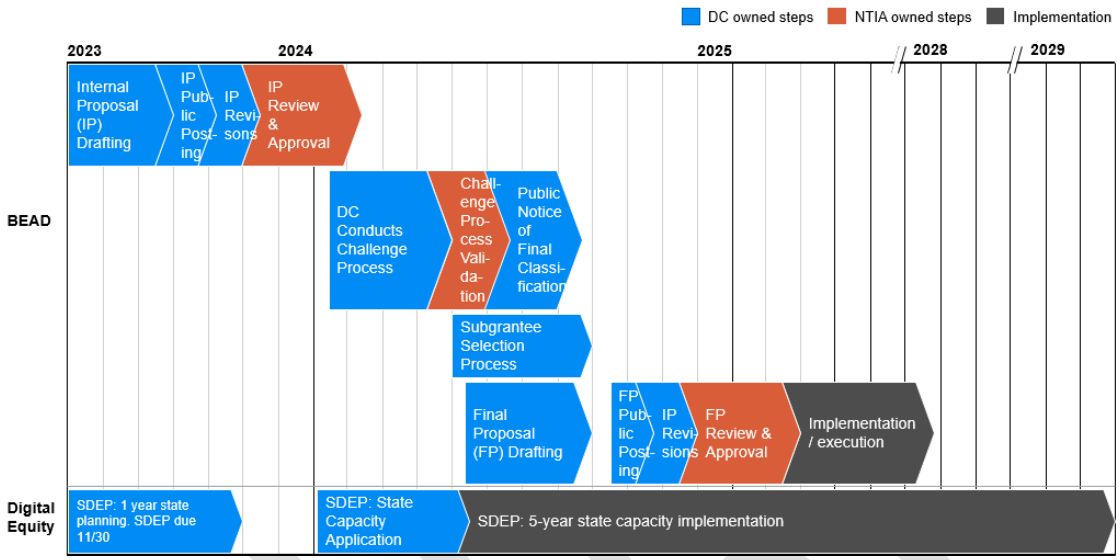
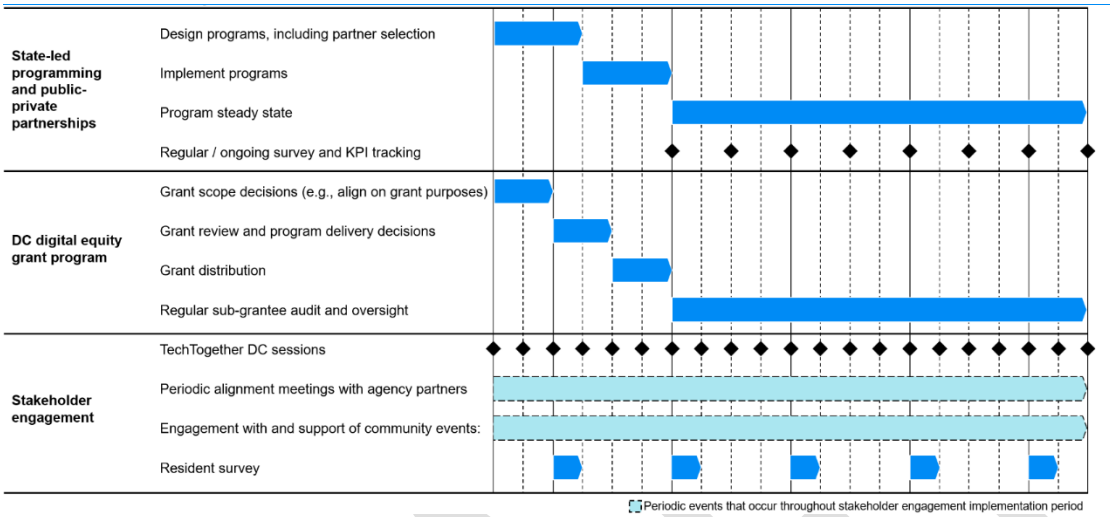


Figure 40 below shows the timeline for implementing key activities in the State Digital Equity Plan.

Figure 40. Timeline for implementing key activities



5 Conclusion

The District of Columbia's State Digital Equity Plan has an ambitious vision, strategy, and objectives for ensuring that every resident and every business, in every corner of DC, can live, work, and thrive in the digital age – without bias or barriers. To implement this plan, the District has a broad and diverse set of digital inclusion-focused programs and other assets, broadband infrastructure, and multiple broadband and digital equity partners. This document lays out the current needs of today, the barriers to digital equity that must be overcome to achieve the plan's vision, and an implementation strategy and plan.

By leveraging the findings in this plan DC's broad asset base, and partnerships with broadband and digital inclusion stakeholders, the DC SBDEO can achieve its vision of bringing digital equity to everyone in the District of Columbia.