

Bridging the digital divide through digital equity offices

Actionable Ideas for Economic Recovery in American Cities Essay Series

Adie Tomer and Lara Fishbane | July 2020

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COVID-19 METRO RECOVERY WATCH

ABOUT THE COVID-19 RECOVERY WATCH

The COVID-19 Metro Recovery Watch is aimed at informing local and state recovery strategies from COVID-19's historic economic impacts in ways that link near-term resilience to longer-term economic transformation, racial equity, and economic inclusion.

Check out the website.



Overview

The American economy continues to digitalize at an astounding pace, but tens of millions of American households cannot access the digital economy due to physical gaps in local broadband networks, unaffordable subscription plans and personal devices, and a lack of digital skills. Digital equity offices would aim to address these structural barriers and ensure the digital economy reaches all local households.

Building on the experiences from established digital equity efforts, each new office would work collaboratively with other agencies and regional stakeholders to establish clear goals, co-design solutions, and measure progress. Establishing a digital equity office will create a permanent administrative unit to prioritize historically disadvantaged groups and neighborhoods, build trust, and create interventions to directly benefit those who have struggled the most to digitally compete. Local digital equity offices allow for local governments to be more in touch with the needs of their communities and give them the authority to negotiate with internet service providers in their region.

Challenge

Broadband has become essential infrastructure for the 21st century. Just as entire industries and personal activities developed around electricity in the 20th century, the same level of economic and social transformation is underway using digital services today. Schools, offices, retail stores, and governments all rely on online platforms, offering people significant time savings and new ways to prosper.¹ Meanwhile, digital skills are increasingly necessary for a growing number of jobs.²

However, broadband can only deliver benefits to those who can connect to it, afford it, and know how to use it. By these measures, broadband is still far from a universal service in American cities. The Census Bureau found that 27.9 million urban households—or 10.8% of the urban population—lived without a broadband internet subscription in 2018.³ The gaps are especially pronounced for Black and Latino or Hispanic households (Figure 1). Research also regularly finds substantial gaps based on income and educational attainment.⁴

The lack of universal subscription is attributable to a range of factors. Broadband is still relatively expensive, and survey results regularly show price as the number-one barrier to broadband adoption.⁵ Many also lack digital skills—a slight majority (52%) of U.S. adults are still "relatively hesitant" when it comes to new technologies and digital skills, meaning they have low levels of digital skills, limited trust in the internet, or don't often turn to it as a source.⁶ Finally, there are still physical network gaps that make a broadband subscription outright impossible.⁷



Figure 1. Urban broadband subscription rates by race, 2018

Source: Brookings analysis of 1-year American Community Survey data

Now, with the COVID-19 pandemic pushing even more activities online, broadband inequities have been cast into sharper relief. At least 124,000 U.S. public and private schools have closed, affecting some 55.1 million students.⁸ With 14% of households with school-aged children lacking a wired subscription in the home, millions of students now face a structural disadvantage in learning and keeping pace with their peers.⁹

The shift to telework has created a similar division, allowing some people to safely work from home while forcing others to keep commuting to work and putting their health at risk. These same issues extend to telemedicine, e-commerce, distant socializing, and even media streaming. With so much economic activity now taking place online, every household without digital service or skills cannot participate. A full economic recovery will require everyone having access to markets and services from their home.

The challenge facing state and local governments, then, is how to address these digital inequities. The traditional role of state and local governments was to regulate telephone companies, negotiate access to public right of way for network construction, and help connect anchor institutions. There was no commitment across all state and local governments to fund digital skills programs, offer discounted subscriptions and devices to at-risk households, or even to liaise directly with disadvantaged communities to understand their needs. Now is an ideal time for communities to focus on building the digital equity infrastructure they may be missing.

Response

To address these challenges, local governments should establish digital equity offices to deliver households the tools to physically access and use broadband and related digital services. Each office would be led by a digital equity officer who reports directly to the top elected executive as a member of the cabinet. The office would be responsible for publishing a Digital Equity Plan for the jurisdiction. That plan would set performance targets, establish strategies, collect data, and plan coordinated activities across multiple agencies, including those responsible for information technologies, economic development, social services, health care, and others. Digital equity offices would also serve as the lead office to liaise with state-level peers, ideally with a similar equity office at the state level.

While every jurisdiction has varying needs, there is a common set of activities that every digital equity office would conduct. Digital equity offices are a relatively new idea that formalizes and consolidates many of the emerging digital equity efforts happening in a range of cities across the country (examples below).

Address network gaps

A digital equity office would ensure that every resident—regardless of income, race, ethnicity, or any other demographic characteristic—can subscribe to wireline and wireless service. Depending on state law and the given telecommunications technology, the office would serve as either the lead or co-lead when negotiating the geography that internet service providers (ISPs) would be obligated to serve. The office would also be responsible for monitoring service levels, including the provision of customer-facing tools to report service issues. Ensuring that ISPs do not conduct digital redlining (purposefully excluding certain communities) is essential, and persistent and thorough data monitoring is critical to avert service inequities. Finally, depending on local willingness, the digital equity office could also help coordinate the construction of any publicly owned broadband networks. Local examples of such implementations include:

- The city of Boston is working to expand high-speed internet to more homes and businesses by extending the Boston Fiber Optic Network to reach every public school, working across city departments to streamline infrastructure build-outs, making the city's fiber assets more accessible to companies, encouraging more market entrants, and expanding free Wi-Fi access points within Boston's main streets.¹⁰
- North Carolina's Broadband Infrastructure Office is working to close the digital divide by allowing ISPs and electric membership cooperatives to compete for funding to increase broadband in rural areas. Moreover, nearly \$10 million was awarded to 20 ISPs working to facilitate the deployment of broadband service in designated counties.¹¹

Promote affordable subscriptions and devices

A digital equity office would co-design and co-operate programs that make broadband and related devices more affordable for lower-income households. The office would serve as the chief negotiator with ISPs over pricing and/or targeted subsidies, including any concessions the local government would be willing to make for specific pricing benefits (within the bounds of current FCC rules). The office would also serve as a resource for schools, housing departments, libraries, and other agencies that bulk purchase network and computing devices. In this capacity, the office would share data from their Digital Equity Plan and—combined with other economic indicators—establish procurement needs for the entire jurisdiction.

 San Francisco's Digital Equity Strategic Plan has the goal of ensuring that all San Franciscans have affordable, reliable, and high-quality internet. Their strategy includes working with ISPs to expand free and low-cost internet options, partnering



with public agencies to advertise low-cost options, and creating a pipeline for city departments and companies to donate surplus digital devices to high-need communities.¹²

- Rhode Island's digital equity initiative is working to get everyone in the state connected to the internet by expanding programs that give low-income residents free and low-cost devices, publicizing and expanding public Wi-Fi access points, working with ISPs to create a lowcost network option, and working with community organizations to disseminate information.¹³
- The New Orleans city government is working to better connect the city by promoting federal Lifeline options and helping residents identify providers. The city is also facilitating a device donation program, which helps low-income residents acquire computers.¹⁴

Coordinate digital skills interventions

A digital equity office would support programs that build the digital skills of local households and support regional employers. The office would use performance data and local relationships to establish training needs. The office would then help support digital skills trainings operated by agency peers such as the local library system and external partners such as nonprofit community groups, including through the use of public funding and technical capacity. The office would work with workforce boards and peers to ensure trainings reflect employer needs where sensible. The office would also serve as the lead agent to coordinate state and federal skills grants, including applying for grants and distributing funds to agency peers.

• The city of Seattle is working toward ensuring that all residents have the digital skills necessary to participate in online spaces. Their strategy includes identifying barriers to skills acquisition, increasing the availability of digital skills programs, increasing the capacity of instructors and volunteers, and providing additional resources and support for the community.¹⁵

 Louisville, Ky.'s Digital Inclusion Plan includes training residents in digital skills by identifying challenges, bringing in community perspectives, and supporting and expanding existing digital skills training programs.¹⁶

Understand and represent community interests

A digital equity office would offer a platform for community members—especially from historically disadvantaged communitiesto directly engage in a broadband-needs assessment and plan related interventions. Based on prior Brookings research, some elected executives and public officials may not realize the extent of the digital divide across the communities they serve. To overcome this potential blind spot, the digital equity office would proactively engage with community advocates and other interested constituents to understand their needs and build trust. The office would then be responsible for designing specific policies to represent their interests around major decisions.

- Portland, Ore. is building a Digital Inclusion Network, which is empowering communities to help in the effort to bridge the digital divide. This includes bringing in a diverse, countywide, and communitybased work group as well as engaging community and neighborhood leaders on the development and implementation of their Digital Equity Action Plan.¹⁷
- To better understand the issues and how to address them, San Francisco conducted a citywide survey with over 1,000 residents as part of its Digital Equity Strategic Plan, followed by a community-needs assessment with over 400 participants at community fairs, affordable housing meetings, food pantries, schools, and community centers. The entire strategy is deeply integrated with the community, including approaches that build the digital capacity of community-based organizations, support community-led innovation challenges, and continuously collect community feedback.¹⁸

Funding

Digital equity office budgets will vary significantly based on the scope of proposed activities and internal staffing levels. Establishing data monitoring systems, purchasing equipment, funding skills trainings, and other fixed costs all need to be scaled based on local funding capacity. Likewise, staffing levels will need to scale based on local budget capacity. There are also opportunities to share costs if multiple local governments could combine resources into a single office (whether hosted inside a city, county, or metropolitan government). Based on conversations with two localities already conducting some of this work, an annual budget could range from less than \$500,000 (to cover a streamlined staff) to over \$1 million (if the office supports a larger staff and more programming), or even higher figures if the office manages capital projects.

Regardless of the budgetary size, a common refrain was to create durable funding streams based on public revenues.

Establishing a digital equity office would also position cities to successfully compete for future federal funding. Federal broadband policies traditionally do not offer direct funding to local governments to address affordability, skills development, or other community engagement activities. The major exception was the Broadband Technology Opportunities Program (BTOP), which the 2009 American Recovery and Reinvestment Act funded for multiple years.¹⁹ With multiple federal bills and key legislators now proposing renewed investment in digital equity, there is optimism that new competitive grants will be available in the future.



Potential impact

Digital equity offices need to be especially attuned for reaching underserved residents. Adults who are not digitally literate, children living in digitally disconnected homes, households without access to private vehicles, and single parents with limited free time all face structural economic disadvantages and would directly benefit from new digital equity programming. An effective digital equity office will be able to demonstrate progress around reaching targeted populations, including through higher subscription rates, greater device availability, higher attendance at digital skills trainings, and more efficient job placements. Any city, metro area, or state that can demonstrate that kind of progress will build a more inclusive society and competitive economy.

confidence that equity-focused interventions can work. An internally funded evaluation of the BTOP program found positive results from investments in public computing centers, adoption programs focused on vulnerable populations, and physical network expansions.²⁰ Similarly, cities such as New Orleans²¹ and Seattle²² have demonstrated impact from their local programming. So far, the city of Seattle has funded 23 local organizations to provide digital skills trainings to residents from disadvantaged backgrounds, leveraged eight city departments to help improve digital equity, and created a tool to allow residents to more easily find free and discounted programs and benefits. Meanwhile, New Orleans granted its first Digital Equity Challenge Award to the Arts Council, which taught young residents basic art and technology concepts as well as relevant digital media skills.



Precedent should give local governments

Endnotes

1 Adie Tomer, Lara Fishbane, Angela Siefer, and Bill Callahan, "Digital prosperity: How broadband can deliver health and equity to all communities" (Washington: Brookings Institution, 2020).

2 Mark Muro, Sifan Liu, Jacob Whiton, and Siddharth Kulkarni, "Digitalization and the American workforce" (Washington: Brookings Institution, 2017)..

3 Brookings analysis of American Community Survey 2018 1-year data.

4 Federal Reserve Bank of Kansas City, "Disconnected: Seven Lessons on Fixing the Digital Divide", 2019.

5 Monica Anderson, "Mobile Technology and Home Broadband 2019" (Washington: Pew Research Center, 2019).

6 John B. Horrigan, "Digital Readiness Gaps" (Washington: Pew Research Center, 2016).

7 While not without data issues, even the FCC's official reporting shows tens of millions of households without physical access to in-home broadband. For example, see the 2020 Broadband Deployment Report available at https://docs.fcc.gov/public/attachments/FCC-20-50A1.pdf [accessed July 2020].

8 "Map: Coronavirus and School Closures", *Education Week*, March 6, 2020. Available online at https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html [accessed July 2020].

9 Lara Fishbane and Adie Tomer, "As classes move online during COVID-19, what are disconnected students to do?" (Washington: Brookings Institution, 2020).

10 City of Boston, "Broadband and Digital Equity", 2020. Available online at https:// www.boston.gov/innovation-and-technology/broadband-and-digital-equity [accessed July 2020].

11 State of North Carolina, "State Broadband Office Expanded Broadband Access, Worked to Close the Digital Divide in 2019", January 3, 2020. Available online at https://it.nc. gov/news/press-releases/2020/01/03/state-broadband-office-expanded-broadband-accessworked-close-digital [accessed July 2020].

12 City and County of San Francisco, "Digital Equity Strategic Plan: 2019-2024", 2019. Available online at https://sfmohcd.org/sites/default/files/SF_Digital_Equity_Strategic_ Plan_2019.pdf [accessed July 2020].

13 State of Rhode Island, "ConnectRI 2019 Plan Overview", 2019. Available online at https://static1.squarespace.com/static/5ac65eef1aef1df1fe019e0f/t/5c65875e4e17b6600b880 a4a/1550157662568/ConnectRI+2019+Plan+Overview.pdf [accessed July 2020].

14 City of New Orleans, "Digital Equity Resources", 2019. Available online at https://nola. gov/iti/digital-equity-overview/resources/ [accessed July 2020]. **15** City of Seattle, "Digital Equity Initiative Action Plan: Final Report", 2016. Available online at https://www.seattle.gov/Documents/Departments/Tech/DigitalEquity_PhaseII.pdf [accessed July 2020].

16 City of Louisville, KY, "Louisville's Digital Equity Plan", 2017. Available online at http:// digitalinclusion.louisvilleky.gov/sites/digitalinclusion.louisvilleky.gov/files/Louisville_Metro_ Digital%20Inclusion_Plan_May%202017.pdf [accessed July 2020].

17 City of Portland, OR, "Digital Equity Action Plan", 2016. Available online at https://www.portlandoregon.gov/oct/article/643895 [accessed July 2020].

18 City and County of San Francisco, "Digital Equity Strategic Plan: 2019-2024", 2019

19 National Telecommunications and Information Administration, "BTOP Fact Sheet", 2013. Available online at https://www.ntia.doc.gov/other-publication/2013/btop-fact-sheet [accessed July 2020].

20 National Telecommunications and Information Administration, "Final Report: Social and Economic Impacts of the Broadband Technology Opportunities Program", Order Number D10PD18645, 2014.

21 City of New Orleans, "Promoting Digital Pathways to Opportunity: Outcomes", 2019. Available online at https://www.nola.gov/iti/digital-equity/dig-eq-challenge-outcomes/ [accessed July 2020].

22 City of Seattle, "Digital Equity Progress Reports", 2020. Available online at https:// www.seattle.gov/tech/initiatives/digital-equity/digital-equity-progress-report/past-progressreports [accessed July 2020].

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