TESTIMONY REGARDING "EVALUATING THE CITY'S PLAN TO CONNECT ALL NEW YORKERS TO INTERNET"

BEFORE THE NEW YORK CITY COUNCIL'S COMMITTEE ON TECHNOLOGY

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Executive Summary

New York City is a well-connected city. In this testimony, the ACLP respectfully offers the Council, the Mayor, and other stakeholders in city government five foundational recommendations for developing focused, forward-looking broadband policy:

- **Recommendation #1 (p. 3-4)**: Define broadband connectivity terms like "access" and "adoption" accurately.
- **Recommendation #2 (p. 4-7)**: Understand what the data say about broadband connectivity in NYC. These data make clear that (1) broadband is available to 99.98% of households and (2) broadband adoption rates have plateaued in recent years despite the availability of subsidies to offset subscription prices.
- **Recommendation #3 (p. 7)**: Inventory existing efforts to close NYC 's digital divide. The city can and should engage more and more effectively with the expert private and nonprofit firms working to bring more people online and delivering critical digital literacy training.
- **Recommendation #4 (p. 7-9)**: Understand the costs and benefits of city actions to address broadband issues. Numerous past endeavors by city government underscore that NYC is poorly suited to build broadband infrastructure but well positioned to support targeted demand-side programming.
- **Recommendation #5 (p. 9)**: Use these inputs to develop a strategy that positions city government as an enabler of the successful efforts of others to close the city's digital divide.

Introduction

Thank you for the opportunity to offer testimony today.

My name is Michael Santorelli. I am the director of the Advanced Communications Law & Policy Institute (ACLP) at New York Law School.[1] The ACLP has been actively involved in broadband issues in New York City for the past 20 years. During that time, we have had numerous opportunities to work with stakeholders in the public, private, and nonprofit sectors on broadband connectivity challenges facing communities across the city.[2]

Today, the Council is addressing a question that has been asked and answered in different ways by a variety of Council Members, Mayors, and other stakeholders over the last two decades, namely: what can the city do to "achieve universal, affordable, and equitable access to internet in homes" across NYC?[3] The framing of this question seems to suggest:

1. New York City still lacks "universal, affordable, and equitable" internet access across the five boroughs, and
2. City government must play a lead role in achieving these goals.

Data, however, tell a much different story about the state of broadband in NYC and the most impactful role for government vis-à-vis enhancing connectivity. In this testimony, we respectfully urge the Council – and city government more broadly – to use data to precisely calibrate its actions in the broadband space. Doing so will ensure that city government plays only a limited role in addressing connectivity challenges, one that supports, rather than supplants, the efforts of stakeholders in the private and nonprofit sectors to bring more New Yorkers online.

This testimony offers the Council, the Mayor, and other stakeholders in city government 5 recommendations for addressing broadband challenges facing New Yorkers:

- **Recommendation #1**: Define terms accurately.
- **Recommendation #2**: Understand what the data say about broadband connectivity in NYC.
- **Recommendation #3**: Inventory existing efforts to close NYC 's digital divide.
- **Recommendation #4**: Understand the costs and benefits of city actions to address broadband issues.
- **Recommendation #5**: Use these inputs to develop a strategy that positions city government as an enabler of the successful efforts to close the city's digital divide.

Each recommendation is discussed more fully below.

Recommendation #1: Define Terms Accurately

Broadband discussions in NYC and elsewhere tend to be muddled by the misuse of key terms and concepts describing broadband connectivity. To assure productive discussions and support impactful planning, it is critical that all stakeholders define and deploy these terms correctly.[4]

Access & Adoption. For example, the Council and other stakeholders often confuse broadband "access" with "adoption."[5] Like most terms discussed here, these are terms of art in the broadband space, which means they have specific definitions. In general, "access" is typically used interchangeably with "availability" – *i.e.,* broadband is accessible to a consumer if a connection is readily available. "Adoption," on the other hand, indicates when a person or household subscribes to broadband. Adoption requires access to an available broadband connection.

Affordability. Similarly, broadband "affordability" is often mistakenly used in broadband policy discussions as a synonym for low-cost or free internet access. This, in turn, incorrectly suggests that the affordability of broadband is solely a function of how much it costs. As the ACLP has discussed extensively elsewhere:

> "Deciding whether something is "affordable" is almost entirely subjective and hinges on a variety of personal factors, like the extent to which someone views a good or service as necessary. For these reasons, affordability is typically viewed as a consumer sentiment rather than an objective economic indicator. Unfortunately, these nuances rarely come up in conversations about broadband. Instead, policymakers, commentators, and others continue to assert, despite ample data to the contrary, that the "affordability" of broadband is the primary, if not sole, impediment to more robust adoption and use. Sadly, this misinformed view has begun to influence policy.
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> "A leading example comes from the $42.5 billion BEAD program. A creature of the Bipartisan Infrastructure Law, BEAD represents the largest ever expenditure of federal resources for broadband. A goal of BEAD is to bolster "affordable" broadband by requiring grant recipients to offer low-cost broadband service at a set price – typically in the range of $30-$60/month – to qualifying low-income households.
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> "The explicit linkage of price and affordability – that low prices automatically make something affordable – reflects the reductive thinking about broadband adoption that has prevailed for years. It also underscores the need for having a more exacting focus on the many other factors that influence whether people subscribe to high-speed internet service."[6]

As discussed more fully below, data on broadband adoption trends in NYC over the last few years support this more nuanced view of affordability, one that revolves around subjective notions like relevance rather than solely on how much broadband costs.

Digital Equity & Digital Inclusion. Finally, numerous stakeholders have begun to incorporate notions of equity into broadband connectivity discussions. The Council, for example, wishes to assure "equitable" internet access.[7] The Council, however, leaves this term undefined. "Digital equity" was recently defined by Congress as "the condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States."[8] This is a flexible definition encompassing the critical notion of people having a meaningful opportunity to harness or benefit from the transformative power of broadband. The Council might wish to adopt this definition.

In addition, the Council might wish to also use the term "digital inclusion," which describes the mechanics by which digital equity can be achieved.[9] Congress has defined "digital inclusion" as "the activities that are necessary to ensure that all individuals in the United States have access to, and the use of, affordable information and communications technologies" and includes critical activities like digital literacy training and similar demand-side interventions.[10] Digital inclusion seems to be a more precise term in the context of broadband connectivity discussions and might also be appropriate.

Recommendation #2: Understand What the Data Say About Broadband Connectivity in NYC

Too often, broadband discussions in NYC and elsewhere are not sufficiently informed by the latest data regarding broadband availability and adoption. Fortunately, present discussions about broadband connectivity come at a time when data collection has improved significantly due to the ongoing planning for allocating federal grant funding, notably via the BEAD program.

Broadband Availability in New York City. Data collected by the New York State broadband office (aka ConnectALL) as part of the BEAD Challenge Process indicates that broadband of at least 100/20 Mbps is available to 99.98% of households across the city.[11] This means that, across NYC's 3.9 million locations capable of supporting a broadband connection, the vast majority of which are households, there are 723 locations that lack access to a broadband connection capable of delivering 25/3 Mbps or faster service and only 17 locations that lack access to a connection of at least 100/20 Mbps or faster.[12] The following table identifies where these gaps remain.[13]

Borough	Remaining Unserved & Underserved Locations
Bronx	82
Brooklyn	217
Manhattan	229
Queens	176
Staten Island	36

These data should be seen as authoritative because they have been scrutinized by federal and state officials, as well as ISPs, residents, and other community stakeholders.[14] Indeed, community stakeholders were given numerous opportunities to challenge the veracity of this information. Accordingly, as of early 2025, these data make clear that broadband is just about universally available across the city.

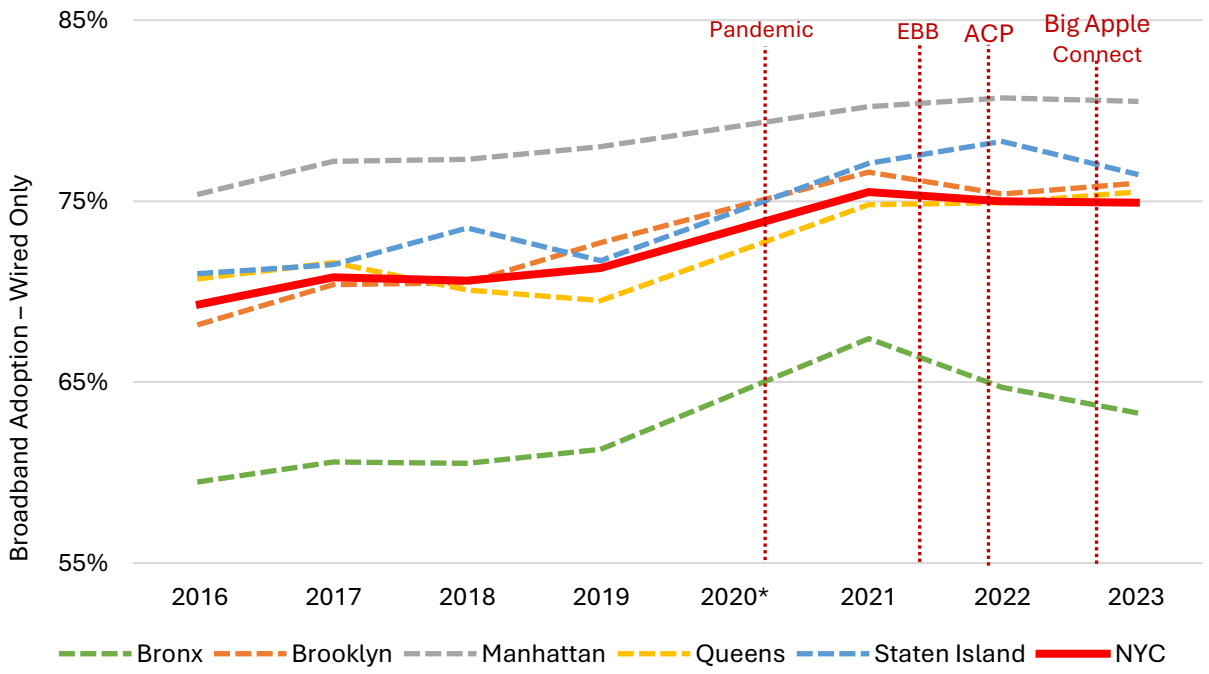
Broadband Adoption in New York City. Broadband adoption data are not quite as fresh as availability data because adoption data is collected nationally and processed by the Census Bureau, creating a lag of several years between data collection and release. Even so, the latest broadband adoption data for NYC (from 2023) offer several important insights that should inform policy discussions at the Council going forward.

The first insight is that broadband adoption has continued to tick up in recent years. Per the Census Bureau's American Community Survey, adoption rates of both broadband "of any type" (*i.e.*, anything-but-dialup, including wireless connections) and wired broadband (*i.e.*, "cable, fiber optic or DSL") have increased since 2016. The following table summarizes these data.[15]

	Wired & Wireless Adoption	Wired Adoption
2023	91.8%	74.9%
2022	89.5%	75.0%
2021	90.0%	75.5%
2019	85.1%	71.3%
2018	84.0%	70.6%
2017	82.4%	70.8%
2016	80.0%	69.3%

The second insight is that these gains appear to be driven in part by the availability of subsidies to offset the cost of a broadband subscription. The chart below depicts the growth

of broadband adoption in NYC along with the timing of previous interventions aimed at boosting take-rates.



Source: US Census Bureau ACS 1-Year Estimates **Data for 2020 is imputed*

This chart demonstrates that pandemic-era interventions, notably the provision of significant monthly subsidies to offset the cost of a broadband subscription, first via the Emergency Broadband Benefit (EBB) and its successor, the Affordable Connectivity Program (ACP), helped to increase adoption rates by several percentage points. Those programs were aimed at making broadband more "affordable" by lowering the cost to zero in many cases when the subsidies were combined with low-cost offerings by ISPs like Charter and Verizon.[16]

The third insight is that broadband adoption rates will only increase so much even when broadband is available at discounted prices or for free. One recent study found that ACP yielded a 3% overall increase in broadband adoption.[17] Survey data collected by the FCC confirms this dynamic: Only about 20% of ACP enrollees used their subsidy to purchase their first internet connection; all other enrollees used their subsidies to purchase *additional* broadband services (*e.g.,* to upgrade a service offering, add another mobile broadband plan to their bill, etc.).[18]

These data make clear that government interventions that focus on bringing down the cost of broadband will only yield minimal improvements to the overall broadband adoption rate. *Indeed, some surveys have found that, even when offered for free, many people will still choose to remain offline. Why? Because they do not see broadband as relevant to their life.*

As such, they are less willing to invest any amount of money in broadband or accept it for free. This is eye-opening but not shocking because relevance has long topped the list of reasons why people remain unconnected to broadband.[19] *Unfortunately, policymakers at every level of government continue to ignore this core finding and choose instead to focus on making broadband more "affordable" by trying to lower its cost – rather than increasing it relevance*. A more robust focus on increasing the value proposition to digital holdouts is thus necessary – and long overdue – in NYC.

Recommendation #3: Inventory Existing Efforts to Close NYC's Digital Divide

New York City has long been home to an impressive array of private and nonprofit organizations that have helped close the digital divide and deliver much-needed training to broadband users across demographics. Many of these entities participated in the state's digital equity planning processes, providing input to inform New York's strategy for leveraging available digital equity grant funding to expand the reach of new and existing offerings.[20] However, it does not appear that the city has endeavored to inventory all the organizations, let alone seek to understand what they offer, how they operate, and what the city can do to extend their reach. The mayor's recently released "Digital Equity Roadmap" does not appear to acknowledge the robustness of the city's social infrastructure, which has proven incredibly effective at delivering tailored outreach and training programs in under-adopting communities across NYC.[21]

Creating an inventory of organizations that have helped and are helping close the digital divide – and developing strategies to help extend the reach and efficacy of those organizations – is an important next step.

Recommendation #4: Understand the Costs & Benefits of City Actions to Address Broadband Issues

As the Council and Mayor contemplate whether and how to engage in broadband planning, examining the outputs of the many previous attempts by the city to develop and implement broadband strategies is instructive. The Council and Mayor should endeavor to use the lessons of these past activities – including failures – to inform its efforts going forward.

In terms of broadband planning efforts, there have been many over the years, including, among others:

- Bloomberg-era Telecommunications Action Plan (2005) developed by DOITT, DSBS, and EDC with the support of a task force comprised of experts from the private and nonprofit sectors and academia.[22]
- NYC Council legislation (2006) establishing a broadband advisory committee that was tasked with convening hearings in each borough and delivering a report to the

mayor.[23] Hearings were convened between 2006 and 2009; a formal report was never issued.

- Mayor Bloomberg's Roadmap for the Digital City report (2011)[24] and subsequent Digital Leadership Roadmap (2013).[25]
- A de Blasio-era Broadband Task Force (2015), which does not appear to have issued any formal reports or recommendations.[26]
- Mayor de Blasio's Internet Master Plan (2020), which baselessly called for the city to invest $2+ billion to overbuild existing broadband infrastructure with a citywide open access fiber network.[27]
- Mayor Adams's Digital Equity Roadmap (2025).

In addition to these activities, the city has also played a variety of supporting and lead roles in attempting to address broadband challenges. These have included, among others:

- Administering $40 million in federal BTOP grants focused on bolstering broadband adoption in underserved communities (2009-2010).[28]
- Investing nearly $1 billion to build a public safety wireless network (NYCWiN) that teetered on the brink of failure several years ago because of the city failed to upgrade its software.[29] Since then, the city has forged a public-private partnership with T-Mobile to enhance wireless services for public safety.[30]
- LinkNYC (2016), a public-private partnership initially hailed as a primary means of closing the city's digital divide. Over time, however, the project has faltered numerous times and failed to achieve any of its initial goals.[31] Subsequently, the city has attempted to revive this struggling initiative by rebranding it as Link 5G and repurposing some LinkNYC kiosks as miniature (or not so miniature) wireless towers capable of housing 5G antennae.[32]
- During the pandemic (2020-2021), the city partnered with a variety of ISPs to deliver low-cost connectivity and free hardware (*e.g.,* tablets) to help assure adequate connectivity for remote work, schooling, and healthcare.[33]
- In 2022, Mayor Adams launched Big Apple Connect, a program that, in partnership with cable ISPs, provides free broadband connectivity to over 100,000 NYCHA residents.[34]

The primary lesson learned from these activities – including numerous costly failures – is that the city is best positioned to serve as a supporter of efforts by private and nonprofit partners to bring more people online. In the past, such supportive, demand-side efforts have yielded sizeable gains in broadband adoption – from BTOP-era programs administered by DOE and DOITT through Big Apple Connect.

As evidenced by the myriad, costly failures of the city to try to build broadband infrastructure, the city is poorly suited to play the lead-role in addressing these issues. There has never been a need for the city to build public broadband networks, as broadband has been widely available for years. Further, broadband is now universally accessible. That the city has achieved 99.98% broadband availability without having to build city-owned broadband infrastructure should be celebrated. It should not be interpreted as an invitation to meddle in what by every measure is an incredibly vibrant and intensely competitive local market for wireline and wireless broadband services.

Recommendation #5: Use These Inputs to Develop a Strategy for Positioning the City as an Enabler of the Successful Efforts of Others to Close NYC's Digital Divide

In view of the above, the optimal role for city government vis-à-vis enhancing broadband connectivity is to continue: (1) facilitating broadband expansion and encouraging network upgrades by private ISPs; and (2) supporting the expansion of programs and approaches that have succeeded in bringing more people online and delivering digital literacy training.

The preceding analysis also demonstrates that the city's broadband challenges lie solely on the demand-side – *i.e.,* lagging broadband adoption in certain communities, a need for more robust digital literacy offerings, etc. Unfortunately, the city, for too long, has underinvested in addressing these demand-side issues. It has taken laudable steps in recent years, notably launching Big Apple Connect, and during the pandemic, it also facilitated partnerships with ISPs and others to deliver access devices and connections to those who needed them most. Significantly more coordination and support for these kinds of initiatives that are led by expert private and nonprofit firms is needed to make continued progress towards bringing as many New Yorkers online as possible.

Conclusion

In sum, the city alone cannot close the digital divide, enhance digital literacy, upskill the work force, or otherwise prepare New Yorkers to thrive in the modern digital world. Achieving these goals will require the collaboration of dozens of organizations across the public, private, and nonprofit sectors working in concert to deliver programming and services to under-adopting communities across the city. Making progress on this front requires knowledge of the myriad potential partners already working to connect the unconnected and deliver digital literacy training. Identifying and partnering with these firms must be the priority for the city going forward.

Thank you again for the opportunity to offer testimony today.

Notes & Sources

[1] For additional information, please visit www.nyls.edu/aclp and www.broadbandexpanded.com.
[2] The ACLP has testified before the City Council numerous times regarding these issues. *See, e.g.,* Michael Santorelli, *Testimony Before the Committee on Technology Regarding Broadband and the Digital Divide,* Oct. 13, 2020, http://comms.nyls.edu/ACLP/Santorelli%20-%20Testimony%20re%20Broadband%20and%20the%20Digital%20Divide%20-%20NYC%20Council%20-%20October%2013%202020.pdf.
[3] *A Local Law to amend the administrative code of the city of New York, in relation to a plan for expanding home access to broadband internet*, Int. 1122-2024, https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=7029043&GUID=1796A95A-4157-4070-A45C-3281D9637135&Options=&Search= ("*Int. 1122-2024*").
[4] For further discussion on these and related topics, please see *State and Local Policymaker's Broadband Planning Tool Kit*, ACLP at New York Law School (Oct. 2022), https://broadbandexpanded.com/files/toolkit/ACLP%20-%20Broadband%20Planning%20Tool%20Kit%20-%20October%202022.pdf ("*Broadband Planning Tool Kit*").
[5] *See, e.g.,* https://council.nyc.gov/data/internet-access/.
[6] Michael Santorelli, *Why It's Time to Get Over the Broadband Affordability Fixation,* Sept. 26, 2024, Forbes, https://www.forbes.com/sites/washingtonbytes/2024/09/26/why-its-time-to-get-over-the-broadband-affordability-fixation/ ("*Affordability Fixation*").
[7] *See, e.g., Int. 1122-2024*.
[8] Bipartisan Infrastructure Law § 60302 (10).
[9] For further discussion, *see Broadband Planning Tool Kit*.
[10] Bipartisan Infrastructure Law § 60302 (11).
[11] Data and analysis on file with the ACLP.
[12] Data and analysis on file with the ACLP.
[13] Data and analysis on file with the ACLP.
[14] For an overview of this process, see https://broadband.ny.gov/new-york-state-broadband-challenge-process.
[15] Data sources and analysis on file with the ACLP.
[16] For an overview of those offerings, *see Broadband Planning Tool Kit*.
[17] Hernan Galperin et al., *A Preliminary Assessment of the ACP Program,* Aug. 2024, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4913528.
[18] *Measuring the Impact of ACP: Survey Results,* FCC, https://www.fcc.gov/sites/default/files/ACP-Survey-Results.pdf.
[19] *Affordability Fixation*.
[20] *See generally New York State Digital Equity Plan* (June 2024), https://broadband.ny.gov/system/files/documents/2024/06/final_new-york-state-digital-equity-plan-accessible.pdf.
[21] *The New York City Digital Equity Roadmap* (March 2025), https://www.nyc.gov/assets/oti/downloads/pdf/DE-Roadmap.pdf.
[22] On file with the ACLP.
[23] Local Law 126 of 2005.
[24] See https://www.nyc.gov/html/media/media/PDF/90dayreport.pdf.
[25] See https://www.nyc.gov/office-of-the-mayor/news/338-13/mayor-bloomberg-releases-to-digital-roadmap-plan-ensure-new-york-city-remains-leading#/0.
[26] See https://www.nyc.gov/office-of-the-mayor/news/226-15/de-blasio-administration-escalates-efforts-close-digital-divide-drive-down-cost-internet.
[27] See https://www.nyc.gov/assets/cto/downloads/internet-master-plan/NYC_IMP_1.7.20_FINAL-2.pdf.
[28] For an overview of these programs, see https://nycdoitt.tumblr.com/post/88280937187/nyc-connected-programs-honored-at-the-first-ever.
[29] Michael Santorelli, *Better Ways to Expand Broadband: City and State Can Expand Access Without Wasting Public Funds,* March 27, 2021, N.Y. Daily News, https://www.nydailynews.com/2021/03/27/better-ways-to-expand-broadband-city-and-state-can-expand-access-without-wasting-public-funds/.
[30] *See, e.g.,* Keely Quinlan, *NYC Selects T-Mobile as City Operations, First Responder Network Carrier,* Feb. 26, 2025, State Scoop, https://statescoop.com/t-mobile-nyc-carrier-deal-2025/.
[31] *Id. See also* Michael Santorelli, *Testimony Before the Committee on Technology Regarding LinkNYC,* May 3, 2022, https://broadbandexpanded.com/files/policy/Santorelli%20-%20Testimony%20re%20LinkNYC%20-%20NYC%20Council%20Hearing%20-%20May%203%202022.pdf.
[32] Id.
[33] *See, e.g., id.*
[34] NYC, Big Apple Connect, https://www.nyc.gov/assets/bigappleconnect/index.html.