Digital Inclusion in Public Housing: The case of HACLA

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Case Study #2 | Nov 2022

1. Introduction

Public housing residents typically face a multilayered set of barriers for broadband access, ranging from limited disposable income to lack of affordable service options to limited digital skills.[1] These barriers are compounded by the fact that public housing sites are often located in areas where infrastructure investments are lagging, and services are provided through legacy networks that cannot support high-speed broadband.[2] Recognizing these challenges, public housing agencies have become increasingly involved in digital equity efforts. These efforts have expanded significantly since the Covid-19 pandemic, which exposed the extent of the unmet connectivity needs among public housing residents.

This report explores the digital equity efforts of the Housing Authority of the City of Los Angeles (HACLA). HACLA is one of the largest public housing organizations in the nation, owning and/or managing about 9,400 affordable rent units across Los Angeles. This includes 14 public housing communities owned and operated by HACLA, which total about 6,500 residential units.[3] The report traces the various connectivity initiatives that HACLA has implemented since the early 2010s, with particular attention to recent efforts that build on a community engagement initiative and a new private sector partnership. More generally, the report reflects on opportunities to scale-up efforts that combine housing and broadband subsidy programs.

The report is based on expert interviews conducted by the research team in early 2022, as well as a review of public documents from HACLA, HUD (U.S. Department of Housing and Urban Development) and other partners involved in the initiatives described below. A list of interviewees can be found in Appendix A.

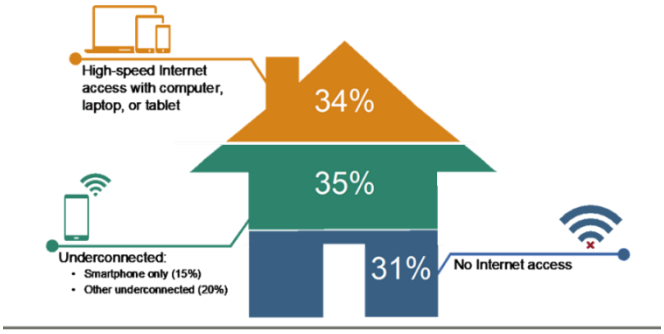
[1] See *Sounding the Alarm: Disparities in Advertised Pricing for Fast, Reliable Broadband*. California Community Foundation, October 2022.
[2] See Galperin, H. (2019). *Who Gets Access to Fast Broadband? Evidence from Los Angeles County 2014-17*. CCIG Policy Paper #4.
[3] See https://autl.assembly.ca.gov/sites/autl.assembly.ca.gov/files/hearings/HACLA.PDF

2. The state of connectivity in public housing

The extent of the connectivity challenges and needs among public housing residents is well documented in a 2016 study commissioned by HUD.[4] The study was designed to establish baseline indicators regarding the state of connectivity in public housing and was conducted as part of HUD's ConnectHome initiative. This federal initiative does not involve direct funding to housing agencies, but rather seeks to assist "selected communities to build place-based solutions for narrowing the digital divide so HUD-assisted residents can access affordable internet, devices, training, and 21st century opportunities."[5] It is worth noting that HACLA has participated in the ConnectHome initiative since it launched in 2015, as part of its first cohort of communities.

For the study, a sample of about 3,800 respondents was randomly drawn from residents of HUD-assisted communities around the country, with interviews conducted in person or by telephone. The results, while not surprising, reveal the multiple barriers for connectivity faced by HUD-assisted families. As shown in Figure 1, only about a third of public housing residents had residential ("high-speed") broadband at home. This represents less than half the adoption rate reported for the overall U.S. population in 2016.[6] About 35% of the residents are reported as underconnected, meaning that they depend on lower-quality mobile connections and devices for access. The remaining 31% reported not having any type of broadband access at home.

Figure 1: Residential broadband adoption among public housing residents

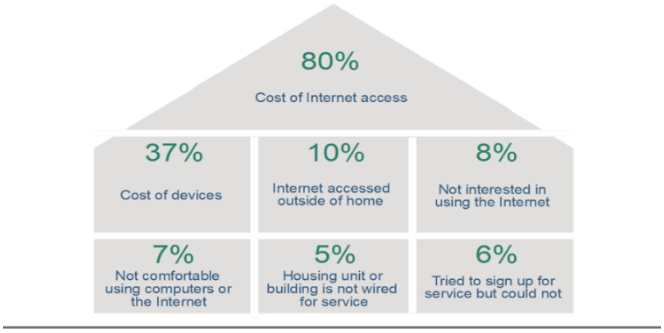


Source: ConnectHome Baseline Internet Access Survey (2016)

[4] The full study can be found at https://www.huduser.gov/portal/sites/default/files/pdf/ConnectHome-Brief.pdf.
[5] See https://connecthomeusa.org/faq-1.
[6] Source: American Community Survey 2016 (https://www.census.gov/content/dam/Census/library/publications/2018/acs/ACS-39.pdf)

When probed about the reasons for not having high-speed broadband at home, the vast majority of respondents cite affordability as the main barrier (Figure 2), with 80% referring to the cost of service and 37% to the cost of devices. This is consistent with other studies about lack of access among low-income households, which also point to affordability as the main connectivity barrier.[7]

Figure 2: Major reasons for not having broadband at home



Source: ConnectHome Baseline Internet Access Survey (2016)

Affordability barriers are further complicated by the limited service options available to public housing residents. Take the example of Nickerson Gardens, a HACLA community with over 1,000 units (the largest west of the Mississippi river) in the Watts area of South Los Angeles. Using deployment data from the CPUC (California Public Utilities Commission), it is possible to approximate the share of the population in Nickerson Gardens served by high-speed (residential) Internet in 2020, the most year available. The results reveal the presence of a single provider of high-speed broadband (at or above 100/20Mbps of download/upload speeds), with services available to just about two thirds of the residents.[8] Further, there is evidence that lack of competition results in higher prices in high-poverty areas in Los Angeles County.[9] This represents a familiar pattern of underinvestment in basic infrastructure in areas with a large share of affordable housing units, one that creates further barriers to broadband adoption for community residents.

[7] See the CETF-USC study "Statewide Survey on Broadband Adoption" (2021) and the Horrigan/EveryoneOn study "State of Digital Equity" (2022).
[8] Source: https://arnicusc.org/digital-divide-ca/ (census tract #242600).
[9] See https://www.calfund.org/wp-content/uploads/Pricing-Disparities-Report.pdf

3. Digital equity initiatives pre pandemic

HACLA's digital equity efforts before 2020 can be divided into three distinct types of interventions. The first are demonstrations projects aimed at revealing the benefits of connectivity as well as the unmet demand for services among residents. In 2013, the agency received a grant from the California Emerging Technology Fund (CETF), a statewide non-profit organization, to connect about 600 units in the Mar Vista Gardens community. Called the Smart Housing Pilot Partnership, the initiative sought to demonstrate the value of broadband connectivity for public housing residents. With a budget of about $300,000, all units at the Mar Vista Gardens community were connected, with an additional budget of $50,000 for digital literacy training. The result of the initiative was an almost immediate increase in broadband adoption by residents of the community from 48% to 79%.[10]

In addition, a partnership with Sprint and Human I-T, a nonprofit organization dedicated to digital equity and e-waste initiatives, provided refurbished computing devices, hotspots and digital literacy training to about 500 K-12 families at the Avalon Gardens, Gonzaque Village, Nickerson Gardens, Pico Gardens/Las Casitas, Ramona Gardens and Rancho San Pedro sites. Funding for the initiative relied on a combination of grants and private donations. The hotspots offered by Sprint included free Internet service for four years.

HACLA also operated computer labs in 10 of its 14 public housing sites. The labs offered shared Internet access and, in some cases, digital skills training and were located in common areas within the public housing community. Despite the availability of similar shared access options elsewhere (for example in public libraries), according to our interviews the onsite accessibility and the extended hours were highly valued by community residents. At the same time, the interviews revealed that the operating costs of computer labs were often higher than anticipated, and residents were at times frustrated by outdated equipment and limited connectivity services.

Finally, HACLA partnered with local ISPs (Internet Service Provider) to promote their affordable plans through community-engagement events across its sites. However, the interviews revealed that these plans were not always suitable for residents due to a combination of eligibility requirements (for example, having children enrolled in the National School Lunch Program), limited-service coverage, and burdensome enrollment procedures that deterred residents from subscribing.

[10] CETF Decade Report (2017).

4. Digital equity initiatives post pandemic

The onset of the Covid-19 pandemic in early 2020 required a shift in HACLA's priorities as it exposed the fragility of Internet access among its residents. In the initial weeks of the pandemic, HACLA received CARES (Coronavirus Aid, Relief, and Economic Security Act) funding to upgrade the existing shared Wi-Fi infrastructure at public housing sites. However, according to our interviews, this temporary solution did not meet residents' expectations or needs. As a result, HACLA began exploring a more sustainable strategy to connect residents to affordable broadband on a long-term basis.

Through its participation in the ConnectHome initiative, HACLA leaders were introduced to Starry, a start-up ISP that uses new fixed-wireless technologies to deliver high-speed service to multi-unit buildings.[11] In 2018, Starry launched Starry Connect, a low-cost, high-speed service aimed at residents of affordable and public housing. Partnering with public housing authorities and affordable housing owners to facilitate onboarding became a key part of Starry's expansion strategy.

HACLA and Starry agreed to launch a pilot in Mar Vista Gardens, a community of about 600 units adjacent to the wealthier areas of West Los Angeles. Another key partner in the pilot was Microsoft, which provided funding for the infrastructure work required within buildings. The new service launched in June 2020, offering a 6-month free trial for 30Mbps symmetrical speeds. After the trial period, the price was fixed at $15/month for a period of 5 years. Critically, Starry Connect did not require credit check or long-term contracts, and the service had no data caps, and no modem or installation fees.[12]

Within a few months, the take-up rate of the pilot was above 40%. This success led to the expansion of Starry Connect to other HACLA communities. As of today (November 2022), the service is available in nine out of HACLA's 14 public housing sites. Table 1 presents the subscription rate of the Starry Connect service in each of these communities as of October 2022. As shown, overall uptake is over 50%, a remarkable level given that legacy services by other ISPs (offering DSL and cablemodem service) continue to be available in many of these communities.

[11] Fixed wireless delivers broadband over the airwaves through towers that connect to fixed receiving devices in customers' residences.

[12] See https://www.hacla.org/en/news/housing-authority-city-los-angeles-hacla-partners-starry-bring-high-quality-low-cost-broadband.

Table 1: Starry service uptake in HACLA communities

HACLA community	Launch date	Units	Subscribers	Adoption rate	% ACP Enrolled
Mar Vista Gardens	6/9/2020	601	251	42%	69%
Imperial Courts	10/30/2020	498	217	44%	84%
Nickerson Gardens	12/11/2020	1,066	859	81%	69%
Pueblo del Rio	1/20/2021	670	257	38%	84%
Jordan Downs	2/4/2021	535	128	24%	80%
Estrada Courts	6/7/2021	414	194	47%	78%
William Mead	6/17/2021	449	202	45%	97%
Pico Gardens/Las Casitas	7/15/2021	298	195	65%	96%
Avalon Gardens	10/18/2021	164	72	44%	94%
San Fernando Gardens	6/9/22	448	326	73%	99%
Ramona Gardens	9/15/22	610	214	35%	98%
Total		**5,143**	**2,701**	**53%**	**90%**

Source: HACLA

A number of factors help explain the success of the HACLA/Starry partnership. First, in order to facilitate enrollment and reduce administrative burdens, it was decided that eligibility would be simply tied to residency in the community, thus obviating the need to certify eligibility through income or participation in other safety net programs. With the launch of the Emergency Broadband Benefit (EBB) program in May 2021, Starry combined its onboarding efforts with enrollment in EBB, which reduced the cost of service for families to near zero. According to interviews with Starry representatives, even before the launch of the EBB program the level of bill delinquency among its public housing subscribers was not different from the rest of Starry's subscriber base. As shown in Table 1, the vast majority of Starry subscribers in HACLA communities are enrolled in the Affordable Connectivity Program (ACP) that replaced the EBB subsidy program in early 2022.

In addition to the Starry partnership, HACLA also partnered with T-Mobile to provide 1,700 hotspots among its residents. This partnership focused on sites that at the time were not covered by Starry services, including Gonzaque Village, Ramona Gardens, and San Fernando Gardens. HACLA also carried out several efforts to distribute devices, with funding from various companies and nonprofit organizations. For example, in May 2020, the nonprofit organization Human I-T distributed 530 refurbished Chromebooks to HACLA families with three or more school-aged children. The Chromebooks were paired with one year of tech support and warranty, and Human I-T provided support for signing up to affordable Internet services available from legacy ISPs.

5. Community Engagement: The Digital Ambassadors Program

A key element in HACLA's post pandemic strategy was the strengthening of community engagement efforts. In the summer of 2020, HACLA launched the Digital Ambassadors program, modelled after a similar program focused on community health. Digital ambassadors are youth leaders (18-24 years old) recruited from within the community (proof of residence is required) that receive training on digital literacy, including training about affordable Internet programs available to community residents.

As described by HACLA, "digital ambassadors are trained to familiarize themselves and recommend resources that relate to digital equity and educate residents on how to use critical online services that provide guidance with food support, rent, education, employment, childcare, government benefits and more".[13] The training also involved information about "telehealth resources for seniors and families, and COVID-19 virtual education workshops in partnership with local health partners". Training was coordinated by EveryoneOn, a digital equity non-profit organization that is a key partner of HUD's ConnectHome initiative.

The program was initially launched at Nickerson Gardens, and by the end of 2021 a cohort of 20 digital ambassadors had been trained, serving as trusted messengers in digital equity efforts across HACLA public housing sites. According to interviews with HACLA representatives, a community saturation strategy was critical to the success of the Digital Ambassadors program and the HACLA partnership with Starry. The strategy is premised on amplifying key messages about residential connectivity for health, jobs and learning across the target communities.

6. Conclusion

There are about 1.2 million families living in public housing in the U.S. They represent some of the most vulnerable families – many of them seniors, veterans or people with disabilities – for whom the cost of high-speed broadband, and the equipment and software it requires, is often prohibitive.

This case study demonstrates the multiple potential synergies that exist between housing and broadband support systems. Housing authorities such as HACLA are uniquely positioned to offer connectivity solutions that match residents' needs. These efforts work by leveraging the multiple assets, from rights of way to trust relationships with residents, that are unique to public housing agencies. Further, housing authorities can function as

[13] HACLA Memorandum, October 28, 2021.

demand aggregators and transaction facilitators, partnering with ISPs that offer appropriate business models to offer sustainable connectivity solutions.

These opportunities are already being recognized by federal and state policymakers. In July 2021, California legislators expanded eligibility for the CPUC's Broadband Public Housing Account (BPHA). With a current budget of $15 million (FY 2022-23), the BPHA finances costs related to inside wiring and broadband network equipment in public housing and low-income housing sites.[14] Further, the state gives priority in the allocation of Low-Income Housing Tax Credit (LIHTC) funds to housing projects that include free broadband service to tenants for at least 15 years.[15]

At the federal level, a pending bill will add broadband to the list of utilities subsidized by federally assisted housing programs (currently, telecommunications services are explicitly excluded from HUD's utility allowance program). In addition, in August 2022 the FCC launched the "Your Home, Your Internet" program, a pilot program that provides support for housing authorities to offer targeted outreach and hands-on application assistance for families that receive federal housing assistance.[16]

The findings in this case study also speak to the critical role that trusted messengers play in connectivity initiatives for low-income families. Research shows that a combination of lack of awareness and distrust results in low uptake of low-cost plans offered by private ISPs.[17] By recruiting and training youth within the community, HACLA was able to overcome both informational and trust barriers. The Digital Ambassadors program offers a blueprint to scale up digital equity initiatives that builds on the unique assets (both tangible and intangible) that housing authorities can capitalize on to promote connectivity among public housing residents.

[14] See https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-public-housing-account.
[15] See Read, A. (2022). How to Make Broadband a Priority in Affordable Rental Housing Development. Details about the California LIHTC rules are available at www.treasurer.ca.gov/ctcac/programreg/2022/20220720/2022-Regulations.pdf.
[16] See FCC Third Report and Order, In the Matter of Affordable Connectivity Program, WC Docket 21-450 (August 8, 2022).
[17] See the Horrigan/EveryoneOn study "State of Digital Equity" (2022).

About the project

This policy brief is part of the Measuring the Effectiveness of Digital Inclusion Approaches (MEDIA) project, a research program that seeks to analyze existing broadband inclusion initiatives and provide evidence-based recommendations on how best to connect low-income households to broadband on a sustainable basis.

The program is supported by The Pew Charitable Trusts and includes the California Emerging Technology Fund (CETF) as a key research partner. The views expressed herein are those of the author(s) and do not necessarily reflect the views of The Pew Charitable Trusts or the California Emerging Technology Fund.

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Appendix A: List of interviewees (name, position, affiliation):

- Aracely Hernandez, Administrative Program Specialist, HACLA
- Britney Chine, Program Manager, HACLA
- Dina Lehmann-Kim, Program Manager, U.S. Department of Housing and Urban Development
- Jennifer Thomas, Assistant Director, HACLA, and Adjunct Instructor, USC Sol Price School of Public Policy
- Kurt Peluso, Senior Director of Programs & Partnerships, EveryoneOn
- Madelaine St. Onge, Director of Communications & Government Affairs, Starry
- Virginia Lam Abrams, Executive Vice President, Communications, Government Affairs and Strategic Advancement