NATIONAL HOUSING CONFERENCE

July 18, 2016

Regulations Division
Office of the General Counsel
Department of Housing and Urban Development
451 7th Street, SW
Room 10276
Washington, DC 20410-0500

Docket No. FR-5890-P-01
RIN 2501-AD75
Office of the Secretary, HUD.

Narrowing the Digital Divide through Installation of Broadband Infrastructure in HUD-funded new construction and substantial rehabilitation of multifamily rental housing

Re: Comments on proposed rule requiring broadband in HUD-funded multifamily housing

To Whom It May Concern:

The National Housing Conference (NHC) appreciates the opportunity to comment on the proposed rule to narrow the digital divide by requiring broadband infrastructure in HUD-funded multifamily housing. We welcome HUD's action as a forward-thinking and realistic approach to help ensure that affordable housing development makes more HUD residents receive the benefits of home internet access. We offer a few comments here in hopes of making the proposed rule more effective.

Our primary recommendations for improving the rule are that HUD should:

- Clarify eligibility of costs under various HUD programs
- Clarify the infeasibility exception
- Recognize greater variation in cost
- Coordinate with USDA for rural properties
- Specify how HUD will reflect changes in broadband definitions

I. About the National Housing Conference

The National Housing Conference represents a diverse membership of housing stakeholders including tenant advocates, mortgage bankers, nonprofit and for-profit home builders, property managers, policy practitioners, real estate professionals, equity investors, and more, all of whom share a commitment to

safe, decent and affordable housing for all in America. We are the nation's oldest housing advocacy organization, dedicated to the affordable housing mission since our founding in 1931. We are a nonpartisan, 501(c)3 nonprofit that brings together our broad-based membership to advocate on housing issues.

II. Housing can help bridge the digital divide

NHC with our Connectivity Working Group has conducted research on the digital divide which highlights the importance of providing low-income renters with home broadband access. Having a home computer and Internet access is increasingly important for individual and family well-being and self-sufficiency. The availability of Internet access is associated with greater student achievement, improved health outcomes, less social isolation and more economic growth. However, low-income individuals, and especially very low-income renters, are much less likely to have Internet access or a computer at home. This digital divide worsens economic inequality and risks leaving low-income families further behind.

In 2013, 74 percent of U.S. households had home access to the Internet but only 46 percent of extremely low-income renters had home access to the Internet. Only 54 percent of very low-income renters had home access to the Internet. The digital divide is even worse for older adults and disabled individuals. Only 26 percent of very low-income senior renters have home Internet access, and only about one-third of very low-income disabled renters have home Internet access. These data clearly illustrates the importance of this proposed rule to help address the digital divide.[1]

NHC's Connectivity Working Group, a group of national advocates, developers, public housing authorities, lenders, investors and others, developed policy recommendations that could expand connectivity in low-income housing, attached to this comment. Additionally, NHC developed two case studies on broadband in affordable housing, about a senior housing community developed by Eden Housing and in public housing with the Housing Authority of the City of Austin, also included with our comments.

While having broadband infrastructure in HUD multifamily properties is a significant first step to home internet for low-income residents, NHC hopes that HUD is also exploring ways to make connection more available and to make adoption a reality for more HUD residents. This proposed rule is a positive step forward but is only one part of the effort to connect HUD residents. Without assistance to pay for the unit connection, devices and digital literacy training, residents may not have meaningful internet access. As part of this effort, NHC encourages HUD to consider ways to leverage models and best practices from the ConnectHome initiative and other work being done by housing providers. HUD can also encourage partnerships with internet service providers who provide low-cost internet service for eligible households, like Comcast's Internet Essentials programs. Exploring ways to better utilize the Federal

[1] According to 2013 American Community Survey 1-year public use microdata

Communication Commission's Lifeline program that can now support broadband should also be an important element of this effort to bridge the digital divide.

III. Comments on the proposed rule

We believe the proposed rule helps affordable housing developers look to the future when developing new properties or making major renovations. Broadband infrastructure is most cost-effective to add as part of major construction activities. There is a wide and growing variety of broadband technologies, and the proposed rule is forward-looking by not prescribing particular technologies. The proposed rule also sensibly recognizes that in some instance, adding broadband infrastructure may be infeasible. Indeed, many states take a similar approach in their design standards for state-allocated affordable housing resources like Virginia which awards points for broadband infrastructure in its Qualified Allocation Plan and Michigan which requires a high speed Internet connection for its housing programs.

Our specific comments on the rule therefore highlight places to clarify without changing the overall approach.

A. Clarify eligibility of costs under various HUD programs

HUD has made good strides in clarifying that broadband is an eligible expense, like the recent guidance on broadband in HOME, CDBG, and the National Housing Trust Fund. HUD should continue these efforts for all multifamily development programs. Building on these initial steps, HUD should explore treating cost-effective basic broadband as a standard operating cost for affordable housing properties. This would affect all HUD properties, but would be most meaningful for those using a budget-based rent calculation, such as Section 202, some project-based Section 8, Section 811, and others. For it to meaningfully affect public housing, HUD would need to revise additional guidance possibly through an "add-on" expense under the asset management formula in sec. 990.190. Put more simply, if use of a program requires a property to install broadband infrastructure, the funds provided by that program should also be allowed to cover the cost.

B. Clarify the infeasibility exception

NHC appreciates HUD's acknowledgement that, given no additional funding, certain projects may find broadband infrastructure infeasible because of cost. Location, building type, scope of renovation, and other factors can all affect costs substantially. More clarity is needed around this exception so that developers can determine feasibility or infeasibility properly and then document their determination sufficiently. Because HUD may publish guidance later, NHC is concerned that projects may determine infeasibility once the rule is in place but then not meet HUD's standard for infeasibility set in guidance

published later. The final rule should specify what documentation developers should maintain about their determination of feasibility or infeasibility.

C. Recognize greater variation in cost

While HUD's cost estimate of $200 per unit may be reasonable for new construction, it is probably too low for existing properties. Members of NHC's Connectivity Working Group estimated that costs could range from $350 to $500 per unit, especially for existing properties undergoing substantial renovation.[2] This reinforces the need for the infeasibility exception and clear standards for applying and documenting it.

D. Coordinate with USDA for rural properties

In the proposed rule, HUD acknowledges that properties in rural locations may not be able to install broadband infrastructure, which highlights the challenge of getting rural communities as a whole connected to the internet. HUD should coordinate with USDA when possible to help get these communities connected. For instance, when HUD funds a multifamily property in a rural community that does not have the infrastructure to even support broadband, HUD should coordinate with USDA to see if the agencies could leverage their programs to address this "last mile" connection.

E. Specify how HUD will reflect changes in broadband definitions

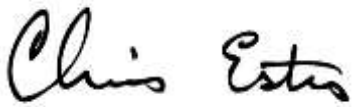
As HUD indicates in the proposed rule, the FCC definition for high-speed access will change as technology continues to improve. Properties, communities, and residents will benefit if new standards are applied quickly. HUD should specify how it will communicate and implement new speed standards as they emerge from FCC.

[2] Public housing guidelines for California's Advanced Services Fund allow for unit costs up to $600 per unit.

IV. Conclusion

This proposed rule is an important step toward closing the digital divide and helping ensure more low-income renters have Internet access. With additional clarity and resources from HUD, this rule will be part of the effort to ensure all affordable housing has internet access. To discuss any of these comments in further detail, please contact Rebekah King, Policy Associate, National Housing Conference, (202) 466-2121 x248, rking@nhc.org.

Sincerely,



Chris Estes
President and CEO

NATIONAL HOUSING CONFERENCE

NHC Connectivity Working Group April 2015

Broadband Connectivity in Affordable Housing

Policy Recommendations

Most of us use the Internet in all facets of our lives: for work, education, medical care, entertainment, shopping, and innumerable daily tasks. Having a reliable broadband connection at home makes all sorts of tasks easier, faster, and cheaper. Yet far too many low-income households do not have even a basic broadband connection at home, as we describe in the accompanying research brief, "The Connectivity Gap: The Internet is Still Out of Reach for Many Low-Income Renters." Making sure all households have an affordable connection plus the computing device and the digital literacy to best use it will create new economic opportunities: for households moving toward self sufficiency, for kids achieving in school, for businesses reaching new markets, and for communities building a higher-skilled workforce.

To help achieve affordable broadband connectivity for all, the National Housing Conference (NHC) convened a Connectivity Working Group to recommend policy changes. The group draws from affordable housing developers, public agencies, policy experts, capital providers, national intermediaries, and more, all committed to the shared mission of closing the digital divide for low-income people. The recommendations presented here draw on the expertise of the Connectivity Working Group, the policy briefs from NHC's Center for Housing Policy, and advice from other stakeholders. We recognize that achieving broadband connectivity for all will require action by many, including Congress, the President, the Federal Communications Commission (FCC), the Department of Housing and Urban Development (HUD), the Department of Agriculture, Internet service providers, state and local governments, and more. To ensure that the affordable housing community does its part, we recommend:

1. **Set a national goal for connectivity in connectivity in HUD and USDA properties as part of a national connectivity goal.** With a strong federal commitment of new resources and partnerships with the private sector, we believe all HUD-assisted and USDA-assisted rental housing properties could have affordable, cost-effective, basic broadband connectivity for all residents by 2020. There are innovative solutions in public housing and privately-owned assisted housing that we could encourage others to adopt. If states commit to this goal as well, we could also reach all Low Income Housing Tax Credit properties. Aligning broadband connectivity with existing initiatives such as Choice Neighborhoods and Promise Zones may help pave the way, but achieving the national goal will ultimately require a concerted effort nationwide.

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p 202 466 2121
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2. **Implement digital literacy and equipment support into broadband provision.** For access to broadband to transform lives, it must be more than just a plug in the wall or a wireless access point. Low-income residents need access to reliable equipment (particularly computers or tablets, not just smartphones, for a full range of education and work-related activities) and training in how to make the most of it. Successful examples of these solutions combine small contributions from residents with grants and owner contributions so that all share a commitment to the success of the effort.

3. **Treat broadband as an eligible expenditure in affordable rental housing.** As pilot programs are demonstrating, basic broadband provided at the property level can serve residents effectively while containing costs. HUD should issue guidance allowing properties to use available funds to implement cost-effective connectivity for residents and should support pilot programs to test different implementation methods. Building on these initial steps, HUD should explore treating cost-effective basic broadband as a standard operating cost for affordable housing properties. This would affect all HUD properties, but would be most meaningful for those using a budget-based rent calculation, such as Section 202, some project-based Section 8, Section 811, and others. For it to meaningfully affect public housing, HUD would need to revise additional guidance possibly through an "add-on" expense under the asset management formula in sec. 990.190. Ultimately, to implement basic broadband widely, Congress would need to provide additional funds, per recommendation 5 below.

4. **Support broadband in affordable housing through FCC actions.** The Federal Communications Commission (FCC) is uniquely positioned to reduce costs of broadband service for low-income households, encourage public-private partnerships to serve low-income communities, and make broadband part of coordinated neighborhood transformation strategies. For example, as the FCC considers the Comcast-Time Warner Cable merger, it should require both companies to:

   a. Work with HUD, state and local housing agencies, and affordable housing stakeholders to implement broadband access in publicly-subsidized housing developments including public housing, Section 8, Low Income Housing Tax Credit, and others.

   b. Contribute to independent funds to support broadband adoption at home and implement strategies to improve and expand Comcast's Internet Essentials program to all low-income families and individuals.

   c. Upgrade infrastructure in underserved areas and extend into unserved communities to improve broadband deployment, with special attention to low-income neighborhoods and multifamily buildings serving households below median income.

   d. Ensure that provider-supported connectivity programs reach all people in need, especially seniors and people with disabilities who may not be captured by school-related criteria for eligibility.

The FCC should consider these aspects in future mergers and consolidations that require approval.

5. **Provide federal funds to support broadband connectivity in affordable housing.** Existing resources are not sufficient to accomplish all that is needed, including capital installation, ongoing operation, equipment, digital literacy training, and technical support. As part of annual appropriations, Congress should allocate additional funding for public and assisted housing to pay for broadband costs in property operations, as well as large-scale pilots to refine best practices for implementing broadband at a property level. Tax incentives are an alternative mechanism for defraying the cost of broadband connectivity in affordable housing, if properly structured in a pay-for-performance model and not diverted from existing affordable housing programs.

6. **Use public resources to leverage private resources.** Private businesses can be part of the solution to the digital divide, through both corporate philanthropy and private investment for business purposes at the large and small scale. In-home connectivity can make property management more efficient for multifamily housing, deliver health care services efficiently, and allow telecommuting for workers. It can also bring low-income people into the economic mainstream as workers, consumers, and entrepreneurs. Scarce public resources should therefore leverage private contributions, of which there are many models, including community development financial institutions, tax credit incentives, loan pools, and in-kind contributions. Examples include Google Fiber projects in Austin and Comcast's Internet Essentials program.

The NHC Connectivity Working Group thanks the California Emerging Technologies Fund for its generous support.

NATIONAL HOUSING CONFERENCE

Broadband Connectivity in Affordable Housing April 2015

The Connectivity Gap: The Internet Is Still Out of Reach for Many Low-Income Renters

Having a home computer and Internet access is increasingly important for individual and family well-being and self-sufficiency. The availability of Internet access is associated with greater student achievement,[1] improved health outcomes,[2] and less social isolation,[3] as well as with more robust economic growth.[4] Connecting to the Internet is increasingly the way people learn, get health care information, share news, pay bills, and interact with government. Most Americans say that being online is essential for "job-related or other reasons."[5] However, low-income individuals and families—and particularly very low-income renters—are far less likely than others to have Internet access or a computer at home. The persistent digital divide in the U.S. exacerbates economic inequality and risks leaving low-income individuals and families further behind.[6]

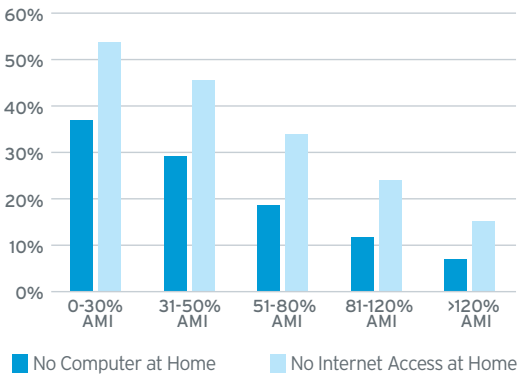
Low-Income Renters are Much Less Likely than Other Households to Have Home Computer or Internet Access

In 2013, 84 percent of U.S. households had a computer at home and 74 percent had home access to the Internet.[7,8] But there are significant variations across income groups, and low-income renters—including many served by federal housing programs—are among the least likely to have access to technology in their homes.

Thirty-seven percent of extremely low-income renters (with incomes below 30 percent of area median income) do not have a computer at home and 54 percent do not have home Internet access (Figure 1). Among renters with incomes between 31 and 50 percent of area median income (AMI), 29 percent have no home computer and 46 percent have no home Internet access. The likelihood of having access increases as households move up the income scale.

Very Low-Income Renters are Somewhat More Likely to Rely on a Smartphone Rather than a Laptop or Desktop Computer

While smartphones are useful for some Internet applications, a home laptop or desktop computer can be necessary for some important tasks, including accessing health information or doing schoolwork. Eleven percent of very low-income renter households (with incomes below 50 percent of AMI) rely solely on a smartphone or other handheld device for their at-home computer access, compared to nine percent of all renters (Figure 2). Higher-income renters are much more likely to have a desktop or laptop at home—70 percent of all renters compared to 55 percent of very low-income renters.



Source: 2013 American Community Survey 1-year PUMS file

FIGURE 1
Share of Renters with No Computer and No Internet Access at Home by Income, 2013

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Only Half of Very Low-Income Renters Have Home Internet Access

Among very low-income renters with home Internet access, the most common type of access is via a cable modem. Mobile broadband access is the second most common mode of home Internet access. However, the availability and speed of different Internet connections vary substantially around the country.[9]

Not only is having access to home Internet important, but having sufficient speed to use online education and training programs like streaming course lectures or to maintain a video connection with a health care provider is equally as important.

Very Low-Income Senior and Disabled Renters are Unlikely to Have Home Computer or Internet Access

Nearly 70 percent of very low-income senior renters do not have a computer and 74 percent do not have home Internet access. Very low-income disabled renters also lack access; more than half have no computer of any kind and about two-thirds do not have access to the Internet in their homes. A lack of access to technology can limit opportunities for seniors and disabled persons to stay connected to friends and families and precludes them from accessing Internet-based health care options.

Very low-income renters with children are more likely than other low-income renters to have both a home computer and home Internet access.

Part of the reason households with children are more connected is because of the focus on access and the integration of the Internet into education. For very low-income seniors and disabled renters, illustrating the benefit of home Internet access has been more of a challenge. However, as federal benefit programs like Social Security move online, Internet access will become critical for older adults and disabled persons.

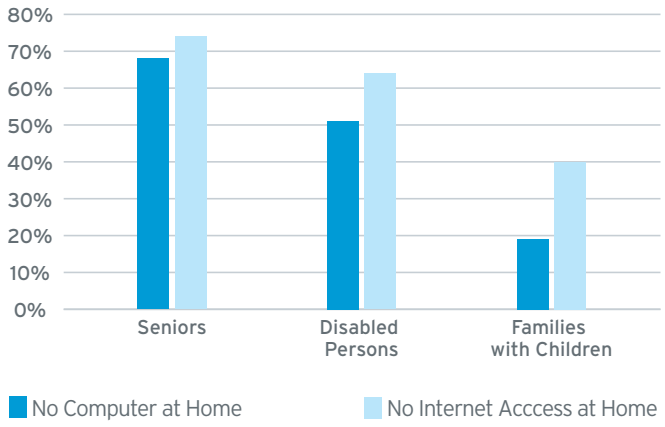
FIGURE 2
Computer and Internet Access Type

	SHARE OF HOUSEHOLDS	
	VERY LOW-INCOME RENTERS	ALL RENTERS
TYPE OF COMPUTER		
Smartphone only, no computer	11%	9%
Computer only, no smartphone	19%	16%
Both computer and smartphone	37%	53%
Neither computer nor smartphone	34%	22%
TYPE OF INTERNET ACCESS[a]		
Mobile broadband	20%	29%
DSL	12%	15%
Cable modem	30%	40%
Fiber optic	4%	6%
Other	4%	4%
No Internet access	50%	35%

[a]Numbers sum to more than 100 because households may have more than one source of home Internet access.

Source: 2013 American Community Survey 1-year PUMS file

FIGURE 3
Very Low-Income Renter with No Computer and No Internet Access at Home, 2013



Source: 2013 American Community Survey 1-year PUMS file

ENDOTES

1. Darling-Hammond, Linda, Molly B. Zielezinski and Shelley Goldman. 2014. *Using Technology to Support At-Risk Students' Learning*. Stanford Center for Opportunity Policy in Education. Online https://edpolicy.stanford.edu/publications/pubs/1241.
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5. Fox, Susannah and Lee Rainie. 2014. The web at 25 in the U.S. Pew Research Center. Online http://www.pewinternet.org/2014/02/27/the-web-at-25-in-the-u-s/.
6. Crow, David. 2014. Digital divide exacerbates US inequality. *Financial Times*. October 28. Online http://www.ft.com/cms/s/2/b75d095a-5d76-11e4-9753-00144feabdc0.html#axzz3Q97suiF0.
7. All data in this report were tabulated from the 2013 American Community Survey 1-year public use microdata sample (PUMS) file.
8. For this report, "computers" include desktops, laptops, notebooks, and smartphones as well as other handheld computers. Internet access includes wireless broadband, dialup, DSL, fiber optic, cable model and satellite Internet services.
9. NTIA. 2013. *U.S. Broadband Availability: June 2010-June 2012*. May. Online http://www.ntia.doc.gov/files/ntia/publications/usbb_avail_report_05102013.pdf.

NATIONAL HOUSING CONFERENCE

Broadband Connectivity in Affordable Housing September 2015

Unlocking the Connection in Austin, Texas

by Mindy Ault

Background

When Google Fiber selected Austin, Texas as the second US city to receive its gigabit broadband Internet service, it awarded free high-speed broadband connectivity to 100 community institutions, including the Austin Children's Shelter, United Way, the Red Cross, every public library in Austin, and the Housing Authority of the City of Austin's (HACA's) Booker T. Washington multifamily property. At Booker T. Washington, the Google Fiber plan calls for installing broadband access for residents in a community computer lab, which includes classroom space and a workforce development site.

The connection to Google Fiber's fiber-optic network led HACA executives to ask whether Google Fiber could help them make a two-year-old strategic plan a reality: While HACA properties provide basic broadband connections in their community centers, the relatively high cost of broadband subscriptions means only a small number of residents have Internet access in their homes. Could a joint effort with Google Fiber achieve HACA's goal of bringing basic broadband Internet into each and every home? Recognizing the importance of having in-home Internet access, HACA's leadership decided to establish a partnership with Google Fiber to provide free basic in-home broadband access for residents at all 18 HACA properties.

COURTESY OF HACA

Google Fiber representative helping a resident.

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The first six of HACA's 18 properties, should be outfitted with fiber-optic networks by June 2016.

As free broadband Internet becomes available to residents at HACA properties, increasing numbers of people will be able to enjoy the kinds of social advantages that come with connectivity: low-income families with children will be better able to keep up with schoolwork and communicate with teachers; adults seeking employment will be able to apply for more jobs online; and seniors and people with disabilities will be able to communicate with healthcare providers and prevent social isolation by keeping in contact with family members and loved ones.[1] Cost will no longer be an insurmountable obstacle for HACA residents when it comes to the benefits in-home Internet access can offer.

Unlocking the Connection

In an effort to achieve its strategic goal of digital inclusion, HACA developed the Unlocking the Connection project. Launched in November 2014, Unlocking the Connection is a community-based initiative to help low-income families gain access to opportunities afforded by in-home Internet connectivity, including improved capacity for employment searches, electronic communication with health care providers and teachers via email and online forms, and access to open-source educational materials. HACA's 501(c)(3) nonprofit subsidiary, Austin Pathways, is the entity charged with seeking funding and implementing the program.

Typically, each household subscribing to Google Fiber for in-home access would be required to pay a $300 connection fee, but Google Fiber agreed to waive that fee for all HACA residents. In addition, free basic Internet access will be provided to residents in their homes at all 18 HACA developments for 10 years. To complement this broadband access, Austin Pathways has developed an Earn A Device program that provides refurbished desktop computers for residents who complete digital literacy training. The computers come free of charge through a partnership with Austin Community College and are loaded with free open-access educational content.

Based on Google Fiber's rollout plan and barring unforeseen complications, the first six of HACA's 18 properties, located in the southern portion of the city, should be outfitted with fiber-optic networks by June 2016.

[1]Barbarotta, Linda. 2014. "Fighting Isolation with Technology," *LeadingAge Magazine*, July/August. Online http://www.leadingage.org/Fighting_Isolation_With_Technology_V4N4.aspx.

Financial Considerations and Partnerships

Altogether, the first phase of the Unlocking the Connection initiative is anticipated to cost approximately $1.4 million, including the cost of in-kind services contributed by Google Fiber. Sylvia Blanco, Executive Vice President for HACA, acknowledged preparation of some initial projections for the second- and third-year costs, but these are being modified based on observations and learnings about the cost of deploying the program during the pilot phase.

Funding for the initiative is provided in part by the Ford Foundation, the Open Society Foundation, and by key gifts from in-kind partners, including the following:

- **Austin Community College (ACC)** is providing refurbished desktop computers for every household in the first six HACA properties and for the foreseeable future will provide retired computers for all HACA units as they come online. HACA and ACC are exploring ways in which ACC students can provide technical support and training to residents in the future.

- **IBM** has provided in-kind strategic planning services.

- **Freescale,** a semiconductor manufacturer, and **Rackspace**, a managed cloud computing company, have contributed funds for K-12 STEM (science, technology, engineering, and mathematics) education that will enable children in public housing to gain valuable digital literacy skills.

- **The University of Texas Moody College of Communication** is evaluating the effectiveness of the Unlocking the Connection program through a formal evaluation.

- **EveryoneOn,** a nonprofit agency that works with telecom companies to ensure people in low-income areas have Internet access at discounted prices, is providing technical assistance to Austin Pathways.

Most recently, Austin Pathways was awarded grants from the City of Austin's GTOPs (Grant for Technology Opportunities) program and from the Central Texas Summer STEM Funding Collaborative, a consortium of funders that includes the KDK Harman Foundation. These funds enable Austin Pathways to provide a STEM initiative for children ages six through 14 and to fund a computer lab apprenticeship program to be offered to all HACA residents.

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Current Status

As of April 2015, the physical infrastructure—the fiber-optic cable—has been installed at the first site, Manchaca Village, and is nearly complete at Meadowbrook, the second property to implement the program. Internet modems have been installed in all the Manchaca Village units, and these are expected to go live by fall 2015. Digital literacy training has begun at Manchaca Village as well, and of the 33 households residing there, 18 now have an Internet-ready computer in their home, pre-loaded with software from **World Possible's RACHEL project** that provides free open-access educational content.

Implementation

In 2013, as part of a planning grant through the U.S. Department of Housing and Urban Development's Choice Neighborhoods Initiative, HACA conducted a household-level survey of public housing properties in East Austin with questions about technology use. The results indicated that in addition to very few residents having an email address, fewer than 30 percent of the households surveyed owned a desktop, laptop, or tablet device. Of those who did, only 28 percent had Internet access in their homes. While about 80 percent of residents surveyed reported having a smartphone, they also indicated this was their only access to the Internet.

It will take time to roll out this project across all HACA properties, but at the first site—the 33-unit Manchaca Village property for families—18 residents have elected to participate in the digital literacy classes offered by HACA as a pilot program with volunteer instructors from Austin Community College. To encourage participation in these classes, residents are offered the opportunity to earn their own computers by attending a minimum of 80 percent of the classes. Adult students at Manchaca Village with technical talent, or who are adept in assisting other learners, are now earning $200 every six weeks by working as assistant trainers in the digital literacy classes at other properties.

Potential Benefits

In addition to educational, health, and social benefits, broadband Internet access is expected to provide other, peripheral benefits. According to Catherine Crago, who leads strategic initiatives for Austin Pathways, there are additional advantages to having internet access at home, some of which could yield operational cost and time savings for HACA as a whole. For example:

- Eventual use of Internet-connected thermostat controls could facilitate regulation of interior temperatures and potentially lead to energy savings for HACA.
- Preventive emergency medical service savings could result for units housing seniors or people with disabilities if they are equipped with Internet-based devices to alert caregivers or case managers when a refrigerator or cabinet door has not been opened for a set period of time, indicating the resident has not taken necessary medication.
- Time savings for social workers in HACA's Family Self-Sufficiency Program could be achieved with the use of a web-based smartphone app to check the status of a client's public assistance application or request income verification from Social Security.

Obstacles

Austin's Unlocking the Connection program, the first initiative of its kind for a housing authority, represents a successful collaboration among community-based organizations. However, there have been challenges to overcome along the way. One of the main obstacles in implementing the Google Fiber project was a $10 household signup fee—separate from the $300 installation fee—required by Google Fiber from every household connecting to the network. Because Austin Pathways and Google Fiber are both committed to making fiber-optic network access completely free for HACA residents, Google Fiber provided a grant to enable Austin Pathways to cover the $10 registration fee for each resident.

Another challenge encountered by HACA was developing effective ways to promote the program to residents who may not see the need for owning a computer or accessing the Internet. As an alternative to staff members visiting each unit individually to share information about free in-home Internet access and digital literacy classes, HACA holds "Tech Ferias"—informational fairs about the broadband project—onsite at residential properties. The Tech Ferias are a way of introducing residents to the program in a group setting that is meant to be enjoyable as well as informational, and signing them up for broadband connectivity. At the first Tech Feria, held at the Manchaca Village property, computers were on display for residents to explore, and staff was available to advise residents about how they could earn a free device for their home just by signing up and attending digital literacy classes. In addition, HACA has utilized its monthly newsletter to communicate class schedules and dates for future Tech Ferias.

A Collective Effort

HACA's Sylvia Blanco described the significant collaboration required by Unlocking the Connection, emphasizing that such a program must be a collective effort involving participants from local government, nonprofit, and corporate sectors. She remarked,

> It takes a village. (A project like) this can't be handled by one entity; it has to be a collective effort. Make sure the mayor's office is on board (and that the) nonprofit and corporate community of your city is reached out to. It takes many hands to make this happen.

Blanco also stressed that such a program is not an overnight fix, stating that since it will likely take years to see the impact of this initiative, project sponsors and participants must be willing to maintain a long-term view in planning and implementation.

Ultimately, Austin Pathways, with significant contributions from Google Fiber and other local community partners, has created a successful model for bringing broadband Internet access to low-income households in Austin who stand to benefit from connectivity.

HACA's Sylvia Blanco described the significant collaboration required by Unlocking the Connection, emphasizing that such a program must be a collective effort involving participants from local government, nonprofit, and corporate sectors.

NATIONAL HOUSING CONFERENCE

Broadband Connectivity in Affordable Housing September 2015

Eden Housing's Cottonwood Place

by Mindy Ault

The Benefits of In-Home Internet Access for Seniors

As the Internet continues to gain relevance and importance in people's daily lives, benefits specific to seniors—those age 65 and older—are becoming more evident. In-home Internet access can provide an important connection to family and friends through email and social media, helping seniors to avoid social isolation,[1] a leading contributor to poor outcomes for seniors in both mental and physical health. A high-speed Internet connection, in particular, allows for video chats, which can provide a sense of closeness beyond what can be gained through email or telephone conversations.[2]

In-home connectivity can also improve health care delivery to older adults. The use of videoconferencing with medical professionals, for example, can broaden access to health services and improve health outcomes for seniors.[3] A study conducted by the Veterans Administration focused on patients receiving mental health services and showed that utilizing high-speed video conferencing to conduct therapy sessions substantially reduced hospital admissions and total hospitalization days among seniors.[4] These findings are promising for seniors' prospects of aging in place: having access to necessary health information and easier interaction with health care providers through online channels will likely increase seniors' ability to remain living in their homes independently.

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Cottonwood Place development in Fremont, CA.

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In-home Internet access for seniors can also enhance emotional and intellectual wellbeing. A 2009 analysis by the Phoenix Center for Advanced Legal and Economic Public Policy Studies determined that Internet use by senior citizens was associated with a 20-percent reduction in depression severity.[5] Researchers from the Semel Institute for Neuroscience and Human Behavior at the University of California, Los Angeles found that spending time on the Internet improved cognitive function by stimulating areas of the brain that control decision-making and complex reasoning in middle-aged and older adults with little Internet experience.[6]

Finally, in-home broadband access provides seniors with convenient and immediate access to interactive online tools that explain government programs (e.g., Social Security, Medicare, tax policy).[7] The ability to access explanatory materials at home provides more privacy and time, in a more comfortable environment, for digesting complex information or seeking answers to sensitive questions than would be possible in a public setting like a library or community computer lab.

According to recent findings from the Pew Research Center, the number of older Americans making use of the Internet is growing, but usage rates decline with income. The study found that of seniors with an annual household income under $30,000, only 39 percent report going online, compared to 90 percent of seniors with incomes over $75,000. This difference is even more pronounced when comparing rates of seniors with broadband connectivity in their homes: only 25 percent of those with annual incomes under $30,000 have in-home broadband access, compared to 82 percent of those with annual incomes over $75,000.[8]

Cottonwood Place

In Fremont, California, in 2012, affordable housing developer Eden Housing opened Cottonwood Place, a mixed-use development combining housing and health care services for low-income seniors age 62 and older. Cottonwood Place has 98 individual units, with 10 of these set aside for frail or higher-need seniors and comprises a partnership between Eden Housing, the City of Fremont, and On Lok Lifeways, a senior health services organization. On Lok staffs a clinic and day center on site and offers a PACE (Programs of All-Inclusive Care for the Elderly) program, which serves seniors with dual enrollment in Medicaid and Medicare, providing comprehensive medical and social services to help eligible residents live independently at home instead of in a nursing home.

Funding

Development of Cottonwood Place was originally funded through the HUD 202 Supportive Housing for the Elderly Program and the Low Income Housing Tax Credit (LIHTC) Program and is primarily supported on an ongoing basis by rental income from residents. Additional operating support is also provided by some public funding via residents' 202 rental subsidy vouchers and occasional grant funding (mostly from foundations) to support special resident services.

Broadband Access

Broadband Internet access is offered, free of charge, in every unit at Cottonwood Place, with Eden Housing paying the full cost of wired broadband access and providing a free modem to each unit. The cost for in-unit access property-wide is $190 per month; this charge is included as a line item in the property's general operating budget.

Initially, Eden Housing included free in-unit broadband access in their plan for the property because California's Qualified Allocation Plan (QAP) application for LIHTC tax credits awards additional points to applicants who offer in-unit broadband access to residents. However, Jennifer Reed, Director of Fund Development and Public Relations for Eden Housing, points out that Eden Housing "has a strong commitment to providing (Internet) access to residents" and may well have opted to include free broadband access to residents even without the incentive of additional QAP points if they could have found the means to finance it.

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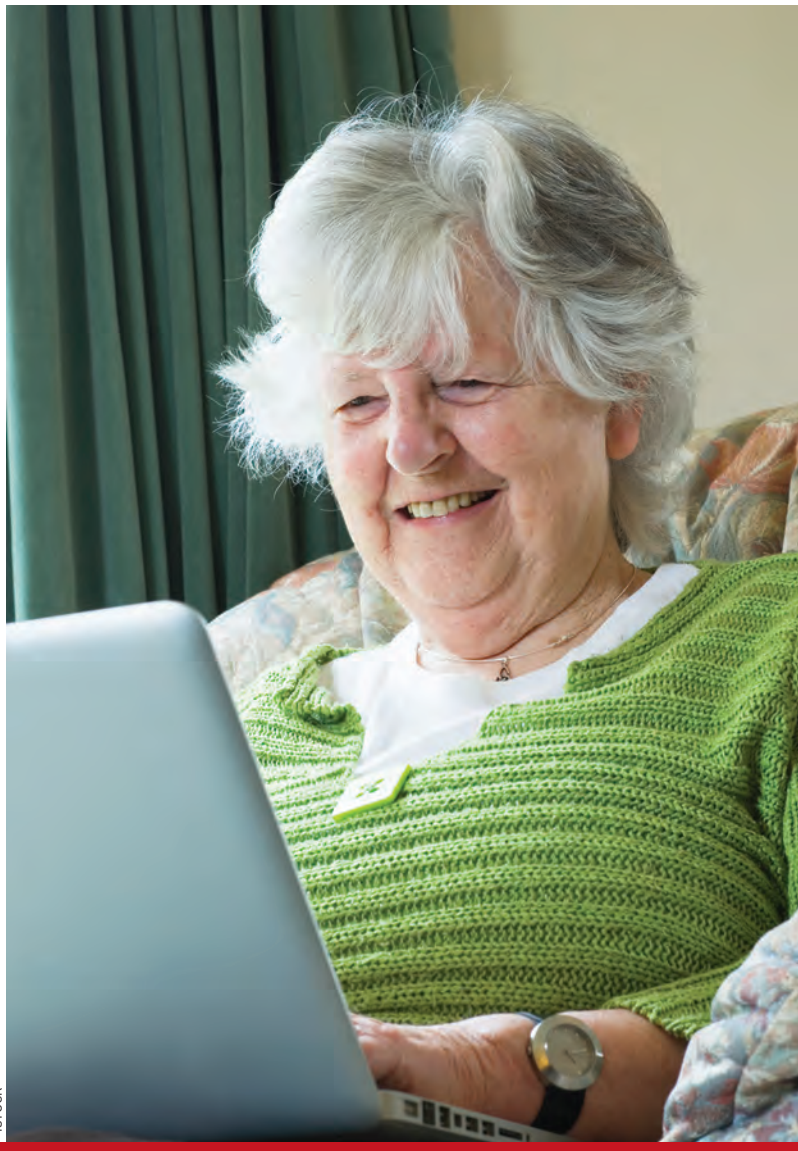
Broadband Usage and Digital Literacy at Cottonwood Place

In individual units, residents must use their own computer or tablet to access the Internet, but there is a computer lab on site at Cottonwood Place, with computers available for use by all so that residents who do not have a computer can still access the Internet. However, for those who do wish to have their own Internet device, Eden Housing offers low-cost options—starting at $75 for a tablet and $120 for a laptop—for purchase through its Communities Wired! initiative, a newly developed program that "promotes digital literacy and broadband adoption across all Eden Housing communities."[9]

Also through the Communities Wired! initiative, Eden Housing offers a digital literacy curriculum, the goal of which is to demonstrate the advantages of Internet connectivity and to instruct residents in how to access and benefit from



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their broadband connection. A study from 2009 showed that digital literacy courses proved to be quite effective in allaying anxiety and improving "computer confidence and computer self-efficacy"[10] in lower-income seniors. According to Reed, during the first year of operation at Cottonwood Place, a resident volunteer taught classes focused primarily on basic applications and social media. Starting this fall, Eden will be resuming classes with an outside volunteer.

Broadband usage records show that about 95 percent of Cottonwood Place residential units have connected a computer, tablet, or smartphone to the Internet using the free modems provided. This could be residents making use of the Internet, or visitors—family members, friends, or caretakers—using their own devices to go online. Reed estimates that 70 to 80 percent of Cottonwood Place residents have a computer or tablet of their own, and that many residents "use the Internet for more channels on their TVs." A number of residents at Cottonwood Place are immigrants and appreciate being able to access television channels broadcast from their native countries online. Fahim Merzaie, Property Supervisor at Cottonwood Place, estimates that most residents use their broadband connectivity to access email, mainly for staying in touch with friends and family, but also to browse the Internet, check account statements and benefits, and utilize online banking.

Overall, Reed emphasizes, the chief benefit of the in-unit broadband connectivity offered to Cottonwood Place residents is how it gives seniors more tools for aging in place. She points out that "across (Eden Housing's) portfolio with seniors, we think that less than 50 percent of our seniors are connected. But at Cottonwood, more than 90 percent of our seniors are (online)."

Challenges

According to Reed, there are two primary challenges involved with ensuring that connectivity at Cottonwood Place facilitates aging in place among residents. First, there is the rapid pace at which technology—both equipment and software—becomes obsolete and needs to be upgraded, making it difficult for low-income seniors to keep current with devices and software. Second, the level of bandwidth that is affordable for Eden Housing to provide free to residents generally is not sufficient to support streaming media. A potential solution to this second difficulty might be to tailor the amount of bandwidth provided to each unit based on individual unit usage levels; however, the level of connectivity currently provided does not allow for this type of customization.

ENDNOTES

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