City of Gainesville Policy Program
Preliminary Research & Analysis

TOPIC: **Digital Inclusion Initiative – Public Housing**

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EXECUTIVE SUMMARY

The digital divide is a form of inequity becoming increasingly pervasive in communities around the world. The digital divide refers to the growing gap between members of society, most commonly the poor, rural, elderly, and disabled populations, who do not have access to computers or the internet, in comparison to the wealthy, middle-class, and young populations living in urban and suburban areas who do have access to these tools.[1] It has also been established that the digital divide aligns with and exacerbates other forms of inequality, including economic, racial, and educational disparities.

Cities around the country have adopted digital inclusion initiatives in an effort to bridge the digital divide in their communities. These initiatives include a variety of different policy options, but they primarily focus on ensuring citizens have access to and an understanding of the Internet and technologies necessary to use the Internet. Due to the fact that these initiatives are focused on increasing equity in digital access within communities, cities have found public and low-income housing to be a natural starting point for these initiatives, as residents in these complexes generally do not have access to or cannot afford Internet services or new technologies. This lack of resources and education regarding technology can prevent these residents from receiving the education or skills they need to advance within their workplaces, and digital inclusion initiatives are attempting to help residents overcome these barriers.

Digital inclusion initiatives in public housing vary based on the municipality implementing them. Some cities focus on providing free or low-cost Internet access to residents, either through in-unit Internet or

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[1] https://cs.stanford.edu/people/eroberts/cs181/projects/digital-divide/start.html

through providing Internet services in apartment complex community rooms. These initiatives are generally more expensive and time consuming, particularly when an emphasis is placed on providing in-unit Internet, but they also address the root of digital inequity, which is that many individuals in low-income housing cannot afford a monthly or yearly Internet subscription. Some cities have also created partnerships to provide residents of low-income housing with new or refurbished computers and technical support. Finally, many cities have placed an emphasis on creating and providing trainings for residents so that citizens know how to use different forms of technologies, and additionally learn how their life can benefit from these tools. The latter approach requires the least amount of resources on the part of the City, but also does little to bridge the divide if residents do not have access to internet or computers.

These programs are supported not only for their efforts in decreasing inequity within communities, but also for creating additional jobs and spurring economic development among portions of the population who have faced a barrier to these opportunities due to their lack of access to and knowledge of technology. If the City of Gainesville chooses to create a digital inclusion initiative, either with or without an emphasis on public and low-income housing, the City will likely need to rely on significant partnerships for these initiatives, both for funding purposes and for the creation and provision of resources.

HISTORY/BACKGROUND INFORMATION

City of Gainesville

The City of Gainesville has been aware of and working to close the digital divide for several years now, as the City created a Digital Divide Task Force in October of 2014. The City has partnered with the Gainesville Housing Authority (GHA) on a variety of initiatives related to digital inclusion.

In 2014, organizations from around the region came together to open three computer labs at Gainesville Housing Authority properties. These labs are open from 3-6PM, and were sponsored by groups including Alachua County, Alachua County NAACP, Alachua County Public Schools, Boys & Girls Club, Brame Architects, City of Gainesville, Cox Communications, Oelrich Construction, University of Florida, North Florida Technology Consultants, Patrick Mitchell Complete Landscape, Pest Control Authority, Santa Fe College, and Saxon, Gilmore, Carraway & Gibbons, P.A.[2]

Additionally in 2014, the City of Gainesville, through former City Commissioner Yvonne Hinson-Rawls, attempted to collaborate to upgrade the public housing wiring and establish technology labs in all eight of the GHA properties. That project, though, met significant financial barriers and was not fully implemented.[3]

Cox Communications participates in the program Connect2Compete, a non-profit dedicated to bridging the digital divide. Through this, Cox offers two plans to bring high-speed Internet to low-income Americans. Cox delivers high-speed Internet to families who participate in SNAP, TANF, and the National

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[2] http://gainesvillehousingauthority.org/event/computer-lab-ribbon-cutting/
[3] https://www.businessmagazinegainesville.com/closing-digital-divide/

School Lunch Program, and for residents of HUD-assisted housing with school-age children for $9.95/month.[4]

Partners/Funding Options

Nearly every municipality that has created a digital inclusion initiative has relied on partnerships from both local and national organizations to provide the resources and funding for these initiatives. Below are a series of the most common national partners in these initiatives, in addition to a few local partners with which the City of Gainesville could work on this initiative.

- Broadband USA – Tallahassee, Florida received a grant of $1,212,020 to implement a strategy to use broadband technology to enhance workforce skills, educational opportunities, and digital literacy among low-income, low-literacy residents. They plan to provide new and refurbished communities and train residents on technology literacy.[5]
- EveryoneOn – National non-profit that creates social and economic opportunity by connecting everyone to the internet. This organization helps local communities to find low-cost internet providers and partners in their area.[6]
- ConnectHomeUSA – movement to bridge the digital divide for public housing residents in the United States. This program is a partnership between EveryoneOn and the U.S. Department of Housing and Urban Development. This effort collaborates with public housing agencies, local government, internet services providers, and non-profit organizations, and has provided 37% of HUD-assisted households with children in partner communities with internet access. The partner communities are given access to stakeholder commitments, monthly webinars, mentorship opportunities, and additional resources from communities with established digital inclusion plans. The 2019 application process has closed, but the 2020 application period will open in May of 2020 and close in July of 2020.[7] The applications are generally completed by the local Housing Authority in collaboration with the municipal government.
- United Way – United Way has partnered with several cities and counties around the country to close the digital divide through access to technology, access to the internet, and technology literacy.[8]
- University of Florida/Santa Fe College – the City of Gainesville may be able to leverage its connections with colleges and universities in the community, who independently have access to significant amounts of resources, to create a digital inclusion initiative. Professors and students from these institutions may assist in developing and providing technology trainings for residents, and additionally may assist in the provision of technology to residents. In Austin, Texas, the local community college partnered with the city to provide residents of public housing with refurbished laptops, an initiative that may be mirrored in Gainesville.

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[4] https://www.cheapinternet.com/low-income-internet/cox
[5] https://www2.ntia.doc.gov/files/grantees/city_of_tallahassee.pdf
[6] https://www.everyoneon.org/
[7] https://connecthomeusa.org/2019application
[8] https://www.unitedwayuc.org/news/digital-inclusion

Understanding the Technology

If the City of Gainesville wants to implement the provision of internet access into the digital inclusion initiative, there are several important elements to consider. Since the City of Gainesville currently does not have a municipal broadband system, the internet would need to be provided by an established provider, likely Cox Communications who has worked with the City of Gainesville in the past on bridging the digital divide.

The first question that will need to be answered is whether internet will be provided in-unit, where every resident has access to the internet within their personal apartment, or whether internet will be provided in a community room or building-wide. The latter option is significantly less expensive than providing in-unit access, however the latter option also does not reduce the digital divide as substantially as providing in-unit access would. If the internet access is shared by all residents, the connection could be less secure than a private connection, and there may be significant slowdowns based on how much other residents use the service. One option the City of Gainesville may take is to begin with the provision of complex-wide internet, and gradually shift to the provision of in-unit services.

The next discussion would need to be whether the initiative provides wired connection, wireless connection, or a combination of the two. Wireless technology is much easier to install and is less hassle for the residents. However, this connection is more subject to interference from other radios, weather, or construction, and generally has slightly slower connection speeds. Wired connection tends to be more secure, however it is significantly more difficult and expensive to install.[9]

It is recommended that regardless of the type of internet provided, the installations of the new services be coordinated with the complexes to take place at the same time as any other utility renovations or improvements, so as to reduce any inconveniences experienced by residents.

PRELIMINARY RESEARCH AND FINDINGS

Austin, Texas

The Housing Authority of the City of Austin (HACA) launched Unlocking the Connection in 2014, an initiative designed to close the digital divide for the 4,300 people living in public housing. This program is led by HACA's non-profit subsidiary, Austin Pathways. This effort intends to provide an affordable Internet connection, access to devices, basic computer skills training, and opportunities to understand how they can use the Internet in their daily lives to residents of Austin public housing. A number of partners, including Freescale, IBM, the KDK Harma Foundation, and Microsoft and supported the initiative.

One of the largest initiatives within Unlocking the Connection is the provision of free basic Internet access to 1,838 residential public housing units through a partnership with Google Fiber. This partnership began when one of Austin's public housing complexes was selected to be a part of Google Fiber's

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[9] https://ilsr.org/wp-content/uploads/2019/03/sf-broadband-public-housing-2019.pdf

Community Connections program, which provides Internet to organizations like libraries, community centers, and non-profits, and from this program Google Fiber agreed to partner with the City of Austin in their digital inclusion initiative.[10] Google Fiber agreed to provide a free fiber connection to any existing HACA property in a neighborhood that reached its signup goal to get Google Fiber. If a family in one of the properties signed up for the Basic Service, they received an in-home Internet connection at basic broadband speeds, free for ten years after construction. Google Fiber additionally provided computers to HACA education and training centers, and assisted the non-profit Austin Free-Net in providing digital literacy training at HACA properties.[11]

Unlocking the Connection has several additional elements, including the provision of digital literacy services to HACA residents, and enabling every HACA household to earn a refurbished computer device through a partnership with Austin Community College. Austin has received funding from several sponsors to provide digital literacy services, including United Way, Skillpoint Allince, Latinitas, Goodwill of Central Texas, Boys and Girls Club, Austin Free-Net, and American YouthWorks.

Phase I of the initiative began in summer of 2014, at six public housing properties which housed 1,423 residents in 500 households.[12] Approximately 80% of these households registered for free broadband Internet provided by Google Fiber, more than 150 households received at least 50 hours of digital literacy training, and 150 families received a free refurbished computer. Austin is additionally a Mentor City to the communities participating in HUD's ConnectHome broadband initiative.[13]

San Francisco, California

The City of San Francisco, California created a partnership with the independent internet service provider (ISP), Monkeybrains, to provide high quality, affordable internet services to residents of San Francisco public housing. This initiative first began when the non-profit San Francisco Housing Development Corporation (SFHDC) took over several housing complexes in the city, making the complexes eligible for Rental Assistance Demonstration (RAD), a U.S. Housing and Urban Development (HUD) program that offers funding to help transfer low-income housing from public to private ownership. The SFHDC began renovating these complexes in 2016, and began soliciting bids to update the buildings' internet connectivity.

Several internet service providers bid on the project, including Comcast – which proposed a single Wi-Fi access point for each building for approximately $200/month. Monkeybrains, an independent ISP, offered free installation of both wireless access points and wired access to each individual unit, at a cost of $10/month to SFHDC and no cost to residents. In order to achieve this low price, Monkeybrains was able to secure approximately $80,000 in funding from the California Advanced Services Fund, which offers state-allocated funding towards project aiming to close the digital divide. This original collaboration was between the SFHDC and Monkeybrains, however after seeing the success of the

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[10] https://fiber.google.com/blog/2013/fast-free-internet-for-100-austin-community-organizations/
[11] https://fiber.google.com/blog/2014/unlocking-the-connection-for-austins-public-housing-residents/
[12] http://austinpathways.org/unlocking-the-connection/
[13] https://www.hacanet.org/award-accomplishment/haca-named-a-leader-in-digital-inclusion/

initiative the City of San Francisco began a pilot program to improve digital access in other affordable housing complexes.[14]

Since the initial program, the city has worked on connecting affordable housing complexes, including the Robert B. Pitts housing complex, directly with the city's fiber. The Robert B. Pitts complex has 213 units in 34 buildings, and the estimated cost of providing wired internet to the units was approximately $20,000 (this number is slightly higher than average due to the fact that installation in individual buildings is more difficult than installation in a single building with more units).

Once the City became involved in the initiative, they split resource provision evenly with the ISP, where the City provided the resources necessary to rewire the complexes while Monkeybrains donated the hardware, switches, and labor. Additionally, the City coordinated construction efforts to ensure that the renovations were occurring in tandem with other unit renovations, so as to reduce hassle for the residents and to streamline costs.[15]

There are several key pieces of information to note from the San Francisco program. The first is that this program specifically aimed to provide residents with wired internet connection, as it is not subject to the same lagging/over-usage issues as a building wireless connection is. The second is that the success of this project was dependent on the contributions of the independent ISP, Monkeybrains, as larger ISPs such as Cox were not willing to provide such high quality service for such a low price. Finally, this project began as an initiative that was independent of the City of San Francisco, and the City joined in after seeing the success of the original collaboration between the San Francisco Housing Development Corporation and Monkeybrains.

Santa Monica, California

Santa Monica's Digital Inclusion Pilot launched in 2015, and the program received an initial $175,000 in funding as part of the City Council's Strategic Initiatives to establish a model for addressing the digital divide. With this first round of funding, the city connected ten affordable housing buildings to residential internet. After the success of the initial wave, the City collaborated with HUD and received $1.85 million through the Community Development Block Grant to expand the program to an additional 29 buildings. This expansion began in 2018, and when it is complete, over 900 low income housing families will have access to free Gigabit broadband delivered to their community room or will be able to purchase affordable Gigabit broadband delivered to their unit for $48/month, and will additionally be able to participate in no cost technology workshops.[16] Santa Monica additionally provides opportunities for low-income housing residents to assume citizen leadership roles by testing out new "smart city" technology and sharing data with the city.[17]

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[14] https://www.bbcmag.com/multifamily-broadband/a-digital-inclusion-blueprint-for-public-housing
[15] https://ilsr.org/wp-content/uploads/2019/03/sf-broadband-public-housing-2019.pdf
[16] https://www.santamonica.gov/press/2018/07/18/santa-monica-s-digital-inclusion-pilot-wins-top-25-programs-in-american-government-award-by-harvard
[17] https://www.innovations.harvard.edu/digital-inclusion-pilot

The internet service which residents of low-income housing in Santa Monica receive through the Digital Inclusion Pilot is CityNet, which is Santa Monica's fiber optic network. This broadband service is notably the fastest residential broadband available in the United States. Santa Monica shows how a municipality can utilize public housing to expand their own municipal broadband service, and if the City of Gainesville wants to implement their own broadband service Santa Monica shows that public housing can serve as a beneficial starting point.[18]

Louisville, Kentucky

Louisville, Kentucky was selected as one of U.S. HUD's ConnectHome cohorts in 2017. Through this initiative, Louisville created their own digital inclusion initiative which focused on three primary areas – improving connectivity, teaching digital skills, and providing hardware.

The first prong of the initiative is focused on ensuring all citizens have access to affordable, convenient, reliable, fast, and full internet. By 2022, Louisville intends to increase home internet access by 15%, and in 2017 the city connected over 400 families to the internet. Louisville found that the challenges the city has faced in meeting this goal is partly due to infrastructure and partly due to affordability. To achieve these goals specifically in public and low-income housing, Louisville ensured that Wi-Fi was made available at every community center, many of which were public housing centers, in the city.

The second prong of Louisville's initiative emphasizes training residents in digital skills which will increase their employability and ability to participate in modern society. This initiative includes supporting existing programs which educate and hire individuals in tech-related fields, and additionally creating programming courses at the free public libraries.

Finally, the third prong of this program focuses on providing the technology and technical support residents need. To do this, Louisville has provided 15 Community Services clients in the self-sufficiency program with a mobile Wi-Fi hot spot and a Google Chromebook for 12 months. Louisville encouraged local businesses to donate used devices to the program, and additionally partnered with local refurbishment and repair clinics to ensure that residents were receiving useful and efficient technology.

Louisville partnered with a variety of local organizations to ensure the success of their program, including the local public library, the Louisville Housing Authority, several departments within the City of Louisville government, the National Digital Inclusion Alliance, and the Civic Data Alliance.[19]

Within one year of Louisville's initiative being started, the city signed up over 400 families for low-cost internet, provided over 350 individuals with a refurbished computer, and trained approximately 40 individuals in digital skills. The entirety of this work was done through donated resources and grant funding. One important barrier that Louisville has noted is that their digital inclusion initiative has no full-time staff, which they believe has limited their ability to bridge the digital divide further.[20]

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[18] http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2018/03/Closer-Look-Santa-Monica-CA.pdf
[19] https://digitalinclusion.louisvilleky.gov/
[20] https://medium.com/louisville-metro-opi2/digital-inclusion-impact-year-1-recap-b082131731f9

PRELIMINARY COST/BENEFIT ANALYSIS

Costs
- Resources
  - Will need to partner with organizations for funding and resources
- Difficulty of installing new internet services
  - GHA buildings may need to be re-wired
- Short-term inconvenience to residents
  - Installation process

Benefits
- Increasing digital equity
- Provides additional economic/educational opportunities to residents

PRELIMINARY AND ILLUSTRATIVE LIST OF POTENTIAL STAKEHOLDERS

- Lavera Davis – Gainesville Housing Authority
- Jacqueline Richardson – Housing and Community Development Division
- Gainesville Housing Authority
- Alachua County Housing Authority
- Cox Communications
- United Way
- ConnectHome – HUD
- EveryoneOn
- Broadband USA
- Connected Gainesville

RECOMMENDED POINTS FOR FURTHER RESEARCH/DISCUSSION

- Access to internet, access to technology, or technology literacy (or any combination thereof)
- Access to internet
  - Wired versus wireless
  - In-unit versus building wide
- The role of the City of Gainesville
  - Oversee the process? Provide funding? More hands-on?