An Exploration of the

Digital Divide

Albuquerque, NM

Next Century Cities

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Contents

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Tucked in almost the exact center of New Mexico, and just Southwest of the state's capital, is Albuquerque. The most populous city in New Mexico, Albuquerque is the fourth largest city in the American Southwest. The area traces its history back centuries to the Tanoan and Keresean people who occupied the mountain range and surrounding areas for centuries before Europeans arrived on the Eastern shore of North America. As Spanish explorers travelled westward, La Villa de Albuquerque was founded in 1706 as an outpost for the kingdom of Santa Fe de Nuevo México. Over the coming centuries, Albuquerque would face many changes and eventually become a part of the United States and the state of New Mexico.[1] Presently, the population of the city is approximately 4.6% American Indian or Alaska Native, a significant figure compared to the nationwide average of 1.3%.[2]

Albuquerque is currently a home to technology, science, and innovation. The community houses aerospace development, manufacturing, electronics, and more. The city is also home to both the University of New Mexico and Central New Mexico Community College. These industries and opportunities draw many people to the Albuquerque metropolitan area for work and education, but the area still faces a major digital divide.[3] In fact, data from the U.S. Census Bureau indicates that almost 1 in 4 residents still lack access to broadband internet and 12% lack access to a computer in their home. For a community that focuses on technology and innovation, a significant number of residents still lack the ability to join in this pursuit.[4]

Methodology

The American Indian Policy Institute (AIPI) was a primary resource when Next Century Cities sought out to explore Albuquerque's digital divide, and this research was a success because of its generosity. AIPI is a think tank housed at Arizona State University with deep expertise on broadband access and adoption. Aside from its research and policy expertise, the organization has consistently elevated the need to expand broadband connectivity for Indigenous populations across the U.S.

Next Century Cities' Team spoke with various community and municipal leaders across Albuquerque's greater metropolitan area. Research began with the Albuquerque City government, a Next Century Cities member municipality, to examine previous work carried out by that office. We also explored work being done by the Albuquerque School District which had to transition students into digital learning programs as a result of COVID-19. Beyond government activities, our team explored work being done by nonprofits and other non-governmental organizations in the region to gather local insights from community leaders.

An important part of this case study assesses the work being done by the community's urban Native population. Fortunately, our team was able to speak with leaders in this community to understand urban Native stories in Mesa.

COVID-19 brought national attention to gaps in broadband access and adoption. It also highlighted the role that digital literacy and devices play in a community's readiness for digital opportunities. Meanwhile, city leaders continue to play a central role in providing residents with the digital access and tools that they need to get online by developing collaborative, forward-thinking, and inclusive digital solutions.

In Albuquerque, school and local leaders are continuing to battle the ongoing pandemic while ensuring their community can successfully transition to digital citizenship. New Mexico continues to battle coronavirus cases. At one point, Bernalillo County, which houses Albuquerque, saw 662 cases of COVID-19 added in seven days.[5] Local officials and community leaders are now working to close the digital divide, reaching out to students who were unprepared for distance learning while battling the worst pandemic of a lifetime.

Municipal Government's Leadership on Closing the Digital Divide

In Albuquerque, the Mayor's office and the Economic Development Board have been taking actions to close the digital divide in their community by focusing on digital literacy and digital equity. Under the mayor's leadership, the City is specifically focused on closing connectivity gaps within the "next generation" so that residents are prepared to participate in Albuquerque's digital future. The economic development board hopes that this program, and a focus on workforce development through technical skills, will develop "an economy for everyone."[6]
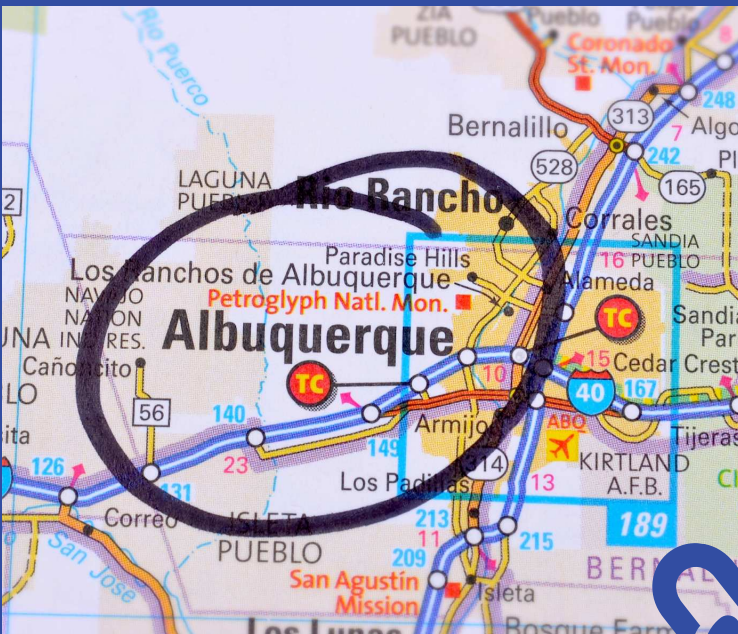
Partnering with Comcast

In 2019, the Albuquerque government announced a partnership with Comcast's Internet Essentials program. Through their partnership with the municipal government, the program provides digital tools to students in the community while granting $50,000 to local Albuquerque nonprofits that are working to increase broadband adoption. Additionally, Albuquerque and surrounding communities were able to see almost 6,000 new customers come online as a result of the program, many of whom are connecting for the first time.[7]

Albuquerque Public Schools

As a result of the the Coronavirus Aid, Relief, and Economic Security (CARES) Act passed in March 2020, the Albuquerque Public School System received approximately $26 million to purchase devices, connectivity solutions, and health safety products. The public school system is supporting low-income students and Title I schools by ensuring each school receives the necessary technology and support to successfully implement a hybrid learning system. Although the New Mexico state legislature moved to cut the funding provided to the school district, local officials opposed the change.

In a letter to the New Mexico legislature before their June 2020 session, the Superintendent of Albuquerque pleaded with the governing body to ensure public schools receive the funding they need.

"We never dreamed that we would be budgeting for staggered school days, face masks and thermometers, additional cleaning and sanitation, online learning, home computers, and internet connectivity."[9]

The school system has worked previously worked on digital inclusion strategies for students in need. However, as the superintendent underscored, their goals are increasingly urgent. The public school system hoped to allocate "$11 million for online learning devices and support" to address needs for the 2020-2021 school year.[10] This falls short of what it would take to connect the 1 in 4 households lacking broadband connectivity. Nonetheless, it would be a significant step for residents in Albuquerque, by far, the most populous city in New Mexico.

ALBUQUERQUE GIGAPOP

A project of the University of New Mexico, Albuquerque GigaPoP was designed and launched to deploy more high-bandwidth broadband to higher education institutions across the state. GigaPoP was largely designed to create new jobs, stimulate economic growth, and improve educational outcomes. The program focuses on partnerships with colleges and universities, but also created a special partnership with Albuquerque Public Schools where all students are encouraged to take a dual credit or distance learning course with a nearby higher education institution.[11] This program not only introduces students to college-level education, but provides an opportunity for all students to participate remotely. However, the digital divide that GigaPoP was designed to help address is the very reason why many residents in greatest need of digital opportunities are unable to benefit.

Aside from connecting students with educational opportunities, GigaPoP also works to connect city and school services, educators, and parents so that all stakeholders can have access to data and information. Together, this network of participants and supporters are ensuring that all corners of Albuquerque, and New Mexico at large, are capable of receiving the best, fastest, and most accurate information possible in the digital age.[12] Still, digital literacy and access to devices are ongoing obstacles to adoption.

In 2020, the Albuquerque municipal government announced a partnership with Cultivating Coders, a national nonprofit that focuses on teaching digital and STEM skills to students in youth. This organization provides a unique approach to closing the divide in Albuquerque by traveling to those users who need it the most. Often, resources of this type are provided in city centers or to select, small communities. Instead, Cultivating Coders and municipal officials locate historically underserved and unserved communities, and bring innovative solutions directly to them. Their goal in Albuquerque is clear:

"Cultivating Coders will open its program for the first time to a larger portion of the public to include students' high school aged and up, but there is no set criteria or requirements to get into the program. Students will have an opportunity to gain digital skills in a wide variety of digital formats and platforms. Participants will be able to use these learned skills and the appropriate technology to communicate and collaborate with peers, employers, family, and the public. Along with the ability to use these skills to actively participate in civic society, they will be able to contribute to a vibrant informed and engaged society."[13]

The collaboration between the City of Albuquerque and Cultivating Coders creates pathways for hard to reach communities to obtain access to digital opportunities and, importantly, participate in highly trained workforce. The COVID-19 pandemic also revealed that many businesses and employees had to transition online on a condensed timeline. Without the requisite investments in digital infrastructure and training, many Albuquerque business owners and residents are simply unable to adapt.[14]

"The younger generation of our workforce, especially in underserved communities, can face a skills gap that creates a barrier to fully participating in our community," said Mayor Keller. "We're working with Cultivating Coders to empower the next generation of Albuquerque workers with the skills and experience local employers are looking for. Together we're building an economy that works for everyone."

The Cultivating Coders program is only a temporary solution. It must be supported by a continued investment in community anchor institutions. COVID-19 emergency funding and other government programs, such as E-Rate, could provide critical resources.

At the federal level, the E-rate program, in conjunction with state level subsidy programs, could make information services more affordable for schools and libraries in cities across New Mexico, including Albuquerque. It is a Universal Services Fund program which allows eligible schools and libraries to access funding for telecommunications services, and internet access, as well as internal connections, managed internal broadband services, and basic maintenance of internal connections. [15] These services are intended to complement the state and local government efforts to bring internet access and increased capacity to schools and libraries. In light of remote learning mandates, public interest advocates have urged the FCC to expand the definition of classroom to provide support for hot spots and other devices while schools and libraries have reduced capacity.

Congress is also considering funding opportunities that could help cities like Albuquerque to expand broadband access and adoption. For examples, under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), state libraries can use funds to expand digital network access, purchase internet accessible devices, and provide technical support services to their communities. [16] Additionally, the proposed Health and Economic Recovery Omnibus Emergency Solutions Act (HEROS Act) that passed the House of Representatives in May 2020, which has yet to be codified into law, could provide 1.5 billion additional dollars for schools and libraries to prevent, prepare for, and respond to the COVID-19 pandemic. [17] This money would have to be related to COVID-19 prevention, preparation, and response efforts. However, this will likely include the purchase of internet capable devices, internet service, and other digital services.

Equipping Urban Native Communities for Future Success

In the wake of COVID-19, the Federal Communications Commission made spectrum available in the 2.5 GHz band to expand broadband in Native American and other Indigenous communities.[18] Spectrum supports wireless broadband solutions, providing options to upgrade existing wireless network capabilities. It is useful for both mobile coverage and fixed point-to-point uses, and is currently used to provide broadband service by legacy educational licensees and commercial providers that lease the spectrum.[19]

Native American communities have faced obstacles in being able to use spectrum available in Tribal areas. To prioritize access for rural tribal communities, the Commission opened up a Rural Tribal Priority Window from February to September 2020 for any federally recognized Tribe or Alaska Native Village may apply for spectrum.[20] New spectrum could help, but will not eliminate the stark digital divide that exists within Tribal communities. Currently many children that live on Tribal lands and attend New Mexico public schools, including in Albuquerque, rely on the Wi-Fi provided by the school system. However, when they return home they are subject to decreased connection capacity if they have any access at all.
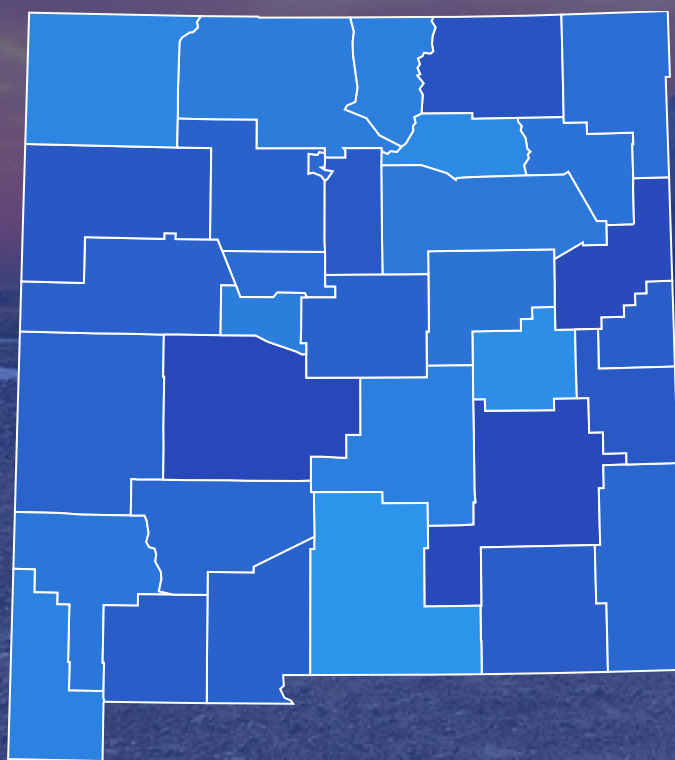
SUCCESS
In Albuquerque

Across New Mexico, school districts and local governments are adapting to a new normal by supporting students and young adults preparing to enter the workforce. While officials have been working to close the digital divide for years, additional funding from the CARES Act and state resources are allowing Albuquerque officials to pursue innovative solutions that can close the divide with greater efficiency.

These goals are not being achieved strictly through the government's work. Instead, municipal leaders identified key community partners who are experts at equipping residents with both technology and digital resources.

Albuquerque GigaPoP is an example of the local-level partnerships that provide necessary infrastructure and network support, the bedrock of a connected community. As these partnerships become available, Cultivating Coders, Albuquerque Public Schools, and other community partners are stepping in to complete the mission.The 2020-2021 school year will be pivotal for Albuquerque officials to measure progress on digital inclusion, ensuring that students do not fall behind, and preparing their local economy for both recovery and the future.

Cities nationwide are working to expand broadband access and increase broadband adoption. In Albuquerque, like the others, there is no single step that can be taken to fully close the digital divide. Local government officials, public interest groups, and private stakeholders are working to meet residents where they are, developing solutions with, not only for, those with the greatest connectivity needs.

ENDNOTES

1. City of Albuquerque, History, https://www.visitalbuquerque.org/about-abq/history/ (last visited Oct. 26, 2020).

2. U.S. Census Bureau, Quickfacts: United States; Albuquerque city, New Mexico, https://www.census.gov/quickfacts/fact/table/US,albuquerquecitynewmexico/PST045219 (last visited Oct. 26, 2020).

3. Albuquerque Economic Development, Key Industries, https://www.abq.org/industry-targets.aspx (last visited Oct. 26, 2020).

4. See U.S. Census Bureau supra note 2.

5. The New York Times, New Mexico Covid Map and Case Count, https://www.nytimes.com/interactive/2020/us/new-mexico-coronavirus-cases.html (last visited Oct. 26, 2020).

6. City of Albuquerque, Workforce Development Programs, https://www.cabq.gov/economicdevelopment/workforce-development, (last visited Oct. 27, 2020).

7. The Deming Headlight, Low-Income Broadband Initiative Sees Success in New Mexico (Oct. 23, 2019), https://www.govtech.com/network/Low-Income-Broadband-Initiative-Sees-Success-in-New-Mexico.html.

8. Shelby Perea, APS anticipating $26M from CARES Act (June 3, 2020), https://www.abqjournal.com/1462812/aps-anticipating-26m-from-cares-act.html.

9. Albuquerque Public Schools, A Letter to NM Legislators on the Session that Begins Thursday, June 18 (June 16, 2020), https://www.aps.edu/news/coronavirus/a-letter-to-nm-legislators-on-the-session-that-begins-thursday-june-18.

10. Id.

11. Albuquerque Public Schools, APS partners with local colleges to offer eligible students dual credit courses. Learn more about dual credit opportunities at CNM or UNM, https://www.aps.edu/counseling-services/college-career-readiness-ccr/dual-credit#:~:text=Dual%20credit%20is%20an%20opportunity,credit%20for%20the%20same%20class (last visited Oct. 26, 2020).

12. University of New Mexico, UNM/ABQG and APS collaborate to Bridge the Digital Divide, http://it.unm.edu/about-it/files/UNM-ABQG-and-APS-Collaborate-1203.pdf (last visited Oct. 26, 2020).

13. City of Albuquerque, City and Cultivating Coders Partner to Bridge the Digital Divide in Albuquerque, http://www.cabq.gov/economicdevelopment/news/city-and-cultivating-coders-partner-to-bridge-the-digital-divide-in-albuquerque (last visited Oct. 26, 2020).

14. Id.

15. Id.

16. Press Release, Institute for Museum and Library Services, IMLS Announces New Stimulus Funding for Communities Across America (Apr.

13, 2020) (available at https://www.imls.gov/news/imls-announces-new-stimulus-funding-communities-across-america).

17. The Hero's Act, H.R. 6800, 116th Cong. § 10302(g) (2020).

18. Federal Communications Commission, 2.5 GHz Rural Tribal Window (last visited Oct. 26, 2020), https://www.fcc.gov/25-ghz-rural-tribal-window.

19. Id.

20. Id.