The Digital Divide

The internet plays a major role in many aspects of our lives. It can be used to entertain, educate, communicate, and run businesses or offices. The most of us in the United States are being provided with broadband in our homes. We pay a monthly fee in exchange for access to the internet. However, many people in the United States have unsatisfactory service or no broadband service at all. In the wake of the COVID pandemic the U.S. broadband system has revealed issues with its reliability, access, and affordability.

**Transition:** Today, I will be introducing the factors that have contributed to the broadband inequality and how the pandemic has contributed to what is called “The Digital Divide”.

What is the Digital Divide?

The Digital Divide is "the gap between those who have access to digital technology and those who do not." Technology including smartphones, computers, and the internet. In 2019 the FCC's Broadband development report projected that the number of Americans that do not have access to wired or wireless broadband internet is 21.3 million. The gap is represented by economic, gender, age, disability, and race.

**Transition:** To first see the problem, we should focus on how the divide is possible by starting to analyze the system in place where we all live.

Focus on California Broadband Infrastructure

California, as we all know, is the most populated state in the U.S. In California we have 187 different residential ISP providers. However, the majority of them are being offered in the most populous cities including Los Angeles, San Francisco, San Diego, and Sacramento. According to the FCC, 76% of Californians do not have internet access meaning that being outside of these major cities the number of ISPs becomes more limited. With California being so large the rural areas are the first to suffer by being limited with 1 or 2 ISP’s.

If you happen to live in an area that has multiple ISP's you still may not have fast or reliable internet. Based on the FCC standards for broadband internet, California's broadband is %60 below the federal standard. The standard is used to determine how to distribute government funds to extend or improve internet service. Meaning that the standard is used to help with determining where to deploy broadband to underserved communities. California sets their own standards basing it off of the California Advanced Services Fund (CASF). CASF is funded by a surcharge on consumer phone lines (about $300 million a year) meaning that it is essentially taxpayer funded. The funds are then distributed to companies in the form of grants. Then with the promise of meeting the minimum service in the low-population market, the company can then receive the grant. Without any competition in these underserved areas however, there is no incentive to offer higher speeds and instead ISP’s will do the bare minimum and not update the infrastructure in the area.

**Transition:** The California infrastructure and regulation has been lacking to help the problem. The ISP’s need to be held accountable to follow through with their plans and need to create more alternatives to the traditional ISP’s. Unfortunately, unprecedented times only exacerbated the divide.

COVID impact on The Digital Divide

During the COVID lockdown we were put in a difficult position by having to transition to an exclusively online environment for our daily lives. With millions of Americans working from home in unprecedented times our broadband needed to adapt as well. During the pandemic, broadband traffic increased by 20%-40% as Americans began the transition to all aspects of life. COVID also revealed that rural America broadband infrastructure is still lacking. One quarter of Americans living in rural areas do not have access to at least 25Mbps download internet. Those residents who have home internet may only have one service provider option. The lack of competition forces customers to accept the limited or insufficient technological offerings.

Children also faced the challenge of going to school at home. K-12 schools had to scramble to have teachers set up an entirely new online system for their students. The children had to then become accustomed to going to class online. However, those in lower income households may not have had the technology needed to access those classes. According to the Pew Research Center 77% of parents who have a student in K-12 say that they have had their child do homework on a cellphone. With 37% of lower income households being more reliant on cell phones. 38% of parents also say that their child had to rely on public wi-fi to complete assignments at home due to not having a reliable connection at home. The pandemic revealed to us the importance of having access to the internet.

**Transition:** The pandemic contributed to the gap by revealing the need for an upgraded broadband infrastructure. Children during the pandemic struggled to attend class, study, or even do basic homework. There is a need for alternatives to traditional broadband and, more importantly, the need for action is more apparent than ever.

How WISPs are helping to bridge the gap

A WISP is a Wireless Internet Provider working within a fixed network to provide a relatively inexpensive way for customers or organizations to build better Internet service for their communities. Currently WISPs are able to provide inexpensive internet to rural areas. It is also something that anyone can get into and set up their own business. WISPs are generally run by small or medium sized entrepreneurs who are a part of the community that they serve. Many of these entrepreneurs have built their own networks and are run by staff that they employ. During the pandemic, the wireless internet provider association (WISPA) reported a 36% increase in traffic and a 33% increase in additional subscribers. By making WISP’s reliable and affordable to customers in fixed locations it helps bridge the gap by serving those who are hardest to reach and bringing an affordable alternative to urban areas.

President Biden’s Infrastructure Investment and Jobs Act

President Biden last year introduced the American Jobs Plan which planned on allocating a $550 billion investment into America’s bridges, roads, water infrastructure, and broadband. In August of 2021 the bill was passed with a new name; The Infrastructure Investment and Jobs Act (H.R.3684). The law allocated $64 billion to fix and build new infrastructure in broadband limited areas across the U.S. The plan is to fix and expand broadband infrastructure by working with ISP’s on creating DATA maps that will help determine where the broadband should be added. The maps will follow a defined set of guidelines including:

1.) Areas that have no access to broadband service; or lack access to reliable broadband.

2.) Or lacks access to reliable broadband a speed of not less than 25 Mbps per second for downloads; and 3 Mbps per second for uploads.

After assessing areas for the maps ISP’s, under the supervision of the federal government, can apply for grants that will allow them to start the labor itself. The program is set to authorize funds for all the programs of H.R. 3684 through the fiscal year of 2026. According to the United States Congress, “This allocation of funds is critical for the access to affordable, reliable, high-speed broadband is essential to the participation in modern life in the United States.”

**Transition**: Focusing on the issue and allocating funds with a plan on how and where to implement the infrastructure is critical for the people who have been underserved.

Conclusion

As we try to return to a normal life on the other end of a pandemic, we have become more aware of the infrastructure that has contributed to the digital divide. Without the contributions of local businessmen creating inexpensive alternatives to normal ISP’s and the allocation of funds to fix and expand our broadband infrastructure it would not be possible to reach those in need. By having more accessible, reliable, and affordable internet people in these communities that have been underserved for so long can begin to thrive.

Work Cited

<https://wispa.org/how_to_start_a_wisp.php>

<https://www.fiberbroadband.org/page/funding-374>

<https://www.allconnect.com/blog/can-you-become-your-own-isp>

<https://www.connectcalifornia.com/internet-service/wisps-fixed-wireless-providers>

<https://en.wikipedia.org/wiki/Digital_divide> “The Digital Divide”

https://startyourownisp.com/

<https://web.archive.org/web/20210728175342/https://www.npr.org/2021/07/28/1021768174/bipartisan-senate-negotiators-say-they-reach-a-deal-on-infrastructure-after-hicc>

<https://www.fcc.gov/reports-research/maps/residential-fixed-internet-access-service-providers-by-census-block/>

<https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/02/updated-fact-sheet-bipartisan-infrastructure-investment-and-jobs-act/>

https://www.pewresearch.org/internet/2021/09/01/the-internet-and-the-pandemic/

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7675734/>

<https://www.fcc.gov/about-fcc/fcc-initiatives/homework-gap-and-connectivity-divide>

https://www.pewresearch.org/fact-tank/2021/10/01/what-we-know-about-online-learning-and-the-homework-gap-amid-the-pandemic/