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The Digital Divide

Lack of Internet Connection and How to Solve it

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**Introduction**

In the 2023 article, “What the 2022 American Community Survey Tells Us About Digital Equity”, by Katie Knox Mimoune, a deep look into a 2022 American community survey is done. It is revealed by the information in this survey that shockingly 24% of American households or 31.2 million do not have internet at home. In addition, 8 million of those households or a whopping 6% do not have any internet connection at all. To help illustrate this information, the article contains a map showing by state the percentages of households without wireline connection.

A map of the united states

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Figure Percentage of Households Without Internet Connection by State

As it can be seen in figure 1 above, all states have a percentage of at least 20%. This percentage includes even the more urban states, not just the rural states. This lack of internet connection is part of something bigger known as the digital divide. While the lack of internet connection posed by the digital divide is a large and daunting problem that seems hard to resolve, by building more broadband infrastructure and by reducing the cost of an internet subscription, alongside upgrading rural technology and making technology a priority in schools, the digital divide can be defeated.

**The Problem**

The digital divide itself refers to the gap between those with internet connection and access, access to technology and digital literacy, and those without. While that is a problem in general in this current year, in 2024 specifically this is an even bigger problem. Now more than ever, technology is very important for many people in many ways. This can include, but is not limited to, being used to communicate with people, being used daily at work to assist with or even preform required tasks or being used in an educational sense to allow access to education or even enhance it. Technology can also just be used in ways to relieve stress. All of this is to say that technology can be used in many ways in people’s lives to benefit them and all the more reason people should have access to internet connection that is reliable and affordable.

When trying to think of places in the United States without reliable internet, or without connection entirely, a good place to start is rural communities. In fact, a 2022 article on “pewtrusts.org”, by Anna Read and Kelly Wert, “Broadband Access Still a Challenge in Rural Affordable Housing”, backs up these assumptions and gives some evidence as to why that may be. The beginning of the article leads with a statistic that one in four rural Americans say that internet access is a major issue in their communities. As to why this is the case, in a paragraph in the article, it is stated that with rural houses being further from one another, building enough broadband infrastructure to connect them all is not worth the cost. In addition, ISPs are of the belief that there are fewer customers in rural communities as well, which only adds to their list of reasons as to why it is not worth the investments needed to expand broadband.

It’s not just the ISPs refusal to expand that is keeping good internet from the rural communities, but also the cost to subscribe. The Pew article also adds that while poverty happens in urban areas as well, poverty-stricken places are most commonly rural. They then add the fact that broadband bills can range from 50 to 70 dollars and even up to 85 dollars if taxes are included in the calculations. If these pieces of information are put together, the fact that ISPs do not see a benefit in expanding in rural areas alongside the costs and the higher poverty rate in rural communities, it is no wonder that they are lacking internet connection.

While lack of internet access is an issue in rural areas, that’s not to say they do not exist in urban areas well. To prove this, let’s look at another article, “Understanding the Urban Digital Divide”, by Alex Trollip from 2021. While the lack of internet expansion in rural areas is due to costs, people lacking it in urban areas primarily do not have internet because they believe they do not need it. This is despite all the benefits having an internet connection can provide. While it may seem like an odd thing to just decide internet connection is not needed, the article adds that based on research data collected by the “Pew Research Center”, most urban households, at least those with school age children, that do not have internet come from lower income households and minority households. This statistic would lead one to believe that despite the overwhelming availability of broadband connection in urban areas, the thing dividing people is cost. Something else interesting noted from the data collected by the “Pew Research Center” is that this lack of internet is causing a “homework gap”. From a 2018 survey they ran, it is revealed that 17% of teenagers from 13 to 17 are completely unable to complete their schoolwork due to a lack of reliable high-speed internet. As seen below, this group of people who are unable to do their schoolwork is clearly illustrated in this graph from the previously mentioned 2018 research survey that was conducted.A graph of a number of people

Description automatically generated with medium confidence

Figure Pew Research Center Homework Gap Graph

With all this information about the digital divide in both rural and urban areas, it should be very clear why this this is an issue and what the main causes of the digital divide are.

It should be made abundantly clear, if these causes are never resolved, there will be consequences in the long term, and they are all connected to each other. If ISPs do not build more infrastructure in rural areas, then they will remain unconnected. Even if ISPs do expand, if they don’t lower costs, they still won’t gain many new subscriptions since many rural households have a low income as well. As it was seen with urban communities as well, if people do not want to pay for it, they will just say they don’t need it. If the ISPs don’t do anything, this number of people without access will just increase. If the number increases, then so will the number of people who are digitally illiterate, just like the homework gap in the graph above will also grow. Those are some of the long term consequences that could occur, but they can be prevented.

**The Solution**

Despite this lack of internet that is part of the digital divide, the problem is big and will take some time to fix, but there is a way to fix it. The obvious solution is to build more infrastructure; more infrastructure means more people will at least have access to it. However, building broadband infrastructure is not cheap; fortunately the government has begun to help with costs. As covered in the Brookings article, “The benefits and costs of broadband expansion”, by Sophia Campbell, Jimena Ruiz Castro and David Wessel from 2021, it is revealed that President Biden planned to invest 100 billion dollars in broadband expansion. It was estimated by the Federal Communications Commission that 80 billion dollars would be needed for the expansion with half of it going to the hardest to connect locations. In the end, only 65 billion was obtained. That is no small amount though and the funds were given to state and tribal governments to use and invest in expanding broadband. With that amount of money here is a proposed solution.

First, begin the construction of broadband expansion in areas without internet connection, using as much as each as each state can, beginning in rural communities and moving towards urban places, that way these places with the least accessibility get it faster. In addition, use the funds to enhance the technology in rural communities, focusing on the technology in schools. This increase in expansion and upgrade in technology will likely lead to more subscribers for the ISPs in the areas. To help reduce costs, the ISPs can offer lower rates due to the lower income or even give households with students a discount since the plan also focuses on upgrading school technology. This solution of simply expanding in areas that need it, with a focus on schools with the implication that ISPs would lower prices or offer discounts may not seem like the best solution, but the benefits that this solution provides outweigh the negatives.

**Solution Defense**

The proposed solution above will undoubtedly help against the digital divide. It may seem like a risky idea for a number of reasons but it is worth it. First, it may seem like an expensive solution that focuses mainly on expansion. It may also seem like a strange idea to focus on upgrading school technology. Finally, some might even criticize focusing on rural areas first and not urban areas. All of these criticisms, while valid, can be countered once the benefits of the solution are explained.

The best place to start is with costs and money. The proposed solution is without a doubt expensive. Expanding broadband infrastructure and building more is not a cheap project, even including the funds given to the states by the government. While it may cost a lot, building broadband also provides a lot of jobs. In fact, the article, “Reimagining the broadband technology workforce”, by Nicol Turner Lee and Brady Tavernier from 2022, goes into all the different jobs it provides. Some of the of jobs they touch on include construction to build the infrastructure, installation, and maintenance jobs to make sure everything is running smoothly to customer service jobs to assist customers when they need it. They also add that many of these jobs are skill based not degree based so they could be easier to obtain. Even with the expense, the jobs it will provide will not only help the economy but it could help those in the area get a job that will allow them to afford internet.

Next, why this solution focuses on upgrading school in particular. While it may seem odd to focus also on expanding technology in and around schools as well, there are two very good reasons for it, education and digital literacy. In regards to the benefits towards education, these can be seen in the article, “Wi-Fi for School Districts: The Ultimate Upgrade Guide”, by Joe Flynn. In this article, Flynn touches on why Wi-Fi and reliable internet are very important for school. He adds that having good internet connection allows for many things, such as providing access to extra resources for students, enhancing online learning and tests and even allowing for better group collaboration. This also leads right into the next point. If schools had Wi-Fi, students would learn digital literacy. Digital literacy refers to someone’s ability to use a computer and is touched upon in the article, “Solutions to the Digital Divide: Moving Toward a More Equitable Future”, by Brad Kloza. In this article, Kloza touches on the fact that 40% of American students have little digital literacy and 23% of adults are not digitally literate. With this information, alongside the educational benefits, it should be clear why schools need to not be affected by the digital divide. The more students have internet access the more resources they have and the higher digital literacy will go.

Finally, it is time to address why rural areas are being focused on in terms of expansion over urban areas. Other than the fact that they are less popular with ISPs, people would also just benefit from being connected in rural areas. For instance, being connected to the internet can even provide rural residents with health benefits. Just what those benefits are can be seen in the article, “Broadband Connection in Rural Communities”, by Edgar Camero. In the article, it is stated that “For example, less than 11% of US physicians practice in rural communities”; quite frankly, that not a lot. If rural communities had internet connection, however, the article is of the belief that they at least would have access to telehealth and it would positively affect them. That is absolutely correct. With telehealth, even without physicians in the area, they could at least get medical questions answered, or even conditions diagnosed while being at home. Long term, this would also improve the health and quality of life of rural residents. That is also why rural areas are being focused on.

**Conclusion**

The digital divide as a problem, if not dealt with, will continue to grow. More and more households will be subject to not having a stable internet connection and many won’t have internet at all. The homework gap between those who can and do their digital work and those who cannot, due to connectivity issues, will get bigger and bigger and digital literacy will decrease. Not all hope should be lost though, things can change. If broadband connection grows, technology in areas currently without it will get an upgrade and schools in particular will become more technologically advanced. More expansion will not only help those in need of internet but it will also help pay for itself through the jobs it provides. Also, digital literacy will increase and people will have a better understanding of technology. Overall though, having internet connection will increase people’s quality of life, giving them access to a limitless pool of information and resources that can change their lives for the better.

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