

Students are still struggling to get internet. The infrastructure bill could help

By [Elissa Nadworny](#) • 7 hours ago



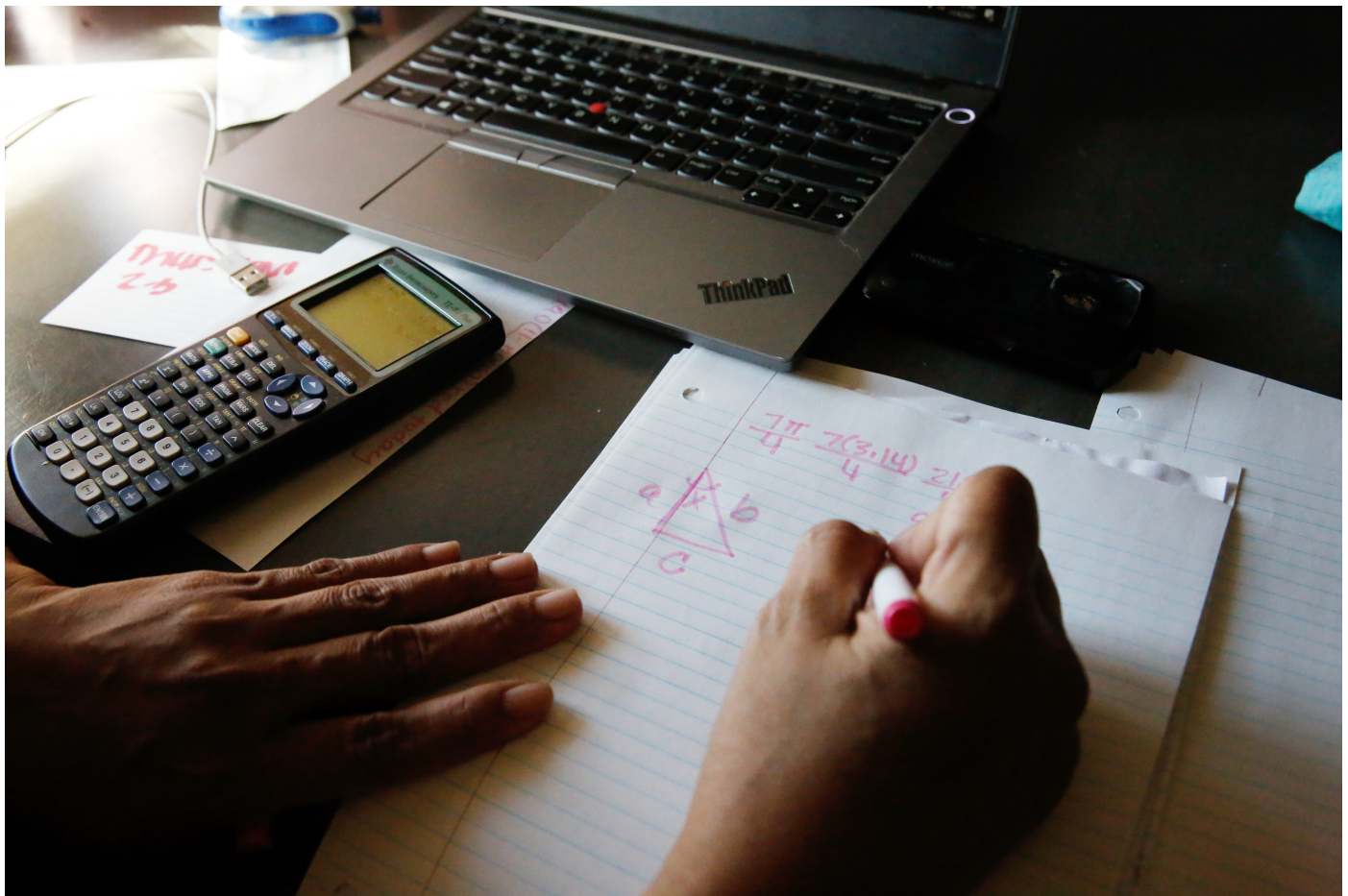
Internet access has always been a problem for Faylene Begay, a single mother of four living in Tuba City, Ariz.

Before the pandemic, she didn't have an internet connection at her home on the Navajo Nation Reservation — all she had was an old phone with limited data. Back then, her lack of connection was a nuisance as she worked her way through classes at Diné College.

But when her college campus closed in spring 2020, internet access

became a major challenge: She could complete all of her assignments, but uploading them required a strong internet connection, which she didn't have.

"Doing the work alone is a lot of work, but not even being able to submit it is just more tragic," she says. Her professors were understanding, but she knew if they couldn't see her work, she couldn't get credit for it.



"It was just beyond my power to submit my work," Begay recalls. "That alone just kind of depleted my purpose ... made me feel like I was defeated by the internet."

She made it through the semester without failing, but after that she was done. Begay didn't sign up for classes the next semester, despite being only a handful of credits away from her goal: an associate degree in health occupations.

In many parts of the country, access to a strong internet connection isn't a given. The Hope Center at Temple University [reported in March](#) that about 40% of college students have struggled with internet or computer access during the pandemic. The real number may be much higher: The report noted that, because the research relied on student responses from an online survey, "inadequate internet access could have contributed to low response rates."

But help is on the way. The newly passed infrastructure bill, which President Biden is expected to sign on Monday, includes \$65 billion for improving broadband. The majority of that money goes toward creating access and improving speed. It's poised to help students across the country, especially those living in rural areas and tribal communities, like Faylene Begay.

Rural college students are especially disconnected

The pandemic forced many colleges [to address their students' lack of access](#) to the internet, but experts say most schools still don't have good data on their students' home connections. For regional public universities, community colleges and commuter schools, that can be a hard blind spot to navigate. You can't fix a problem if you don't know the extent of it.

"There is this presumption of connectivity when you get to college, like, 'Oh, you'll just have it.' Well, that's not the case," says Christopher Ali, who studies internet access at the University of Virginia.

Rural students, like those living [in parts of Appalachia](#) and [in tribal communities](#), are particularly affected. Sixty-eight percent of people living in rural areas of tribal lands don't have access to broadband, [according to research](#) by the Federal Communications Commission, though a 2018 U.S. Government Accountability Office [report](#) indicates the real number may be even higher.



"In rural communities, tribal communities, the traditional logic has been there are not enough people and they live too far apart from each other to merit a high quality, high speed, affordable broadband," explains Ali. "But we know this problem is solvable because it's not a matter of technology, it's a matter of politics and market rate. By constantly prioritizing the private market and the largest providers who have no financial incentive to serve the Navajo Nation [and other Indigenous communities], they're not going to get served right."

Tribal colleges and universities (TCUs) — often some of the main places students and community members go for strong internet — are also underequipped when it comes to internet speeds. According to [a report from the American Indian Higher Education Consortium](#), on average, TCUs have more expensive, yet much slower internet than other U.S. institutions of

higher education.

A tribal college is trying to bring the internet to its students

Charles "Monty" Roessel is the president of Diné College, where Faylene Begay had been taking classes. When he thinks about the ideal student experience, he imagines a seamless transition between campus and home, life and study.

"Education is an extension of the home," he says from his office overlooking Diné's main campus, which is laid out in a circle, to represent a traditional Navajo home, or *hogan*.



"Education is the extension of the school, the community, everything."

But without good internet access, his ideal of a seamless transition is nearly impossible. "Because of technology, it's only where you have enough bars, right? And it just really creates a very different approach to education."

In recent years, Roessel has started to think of the internet as an essential service. He feels his college should play an important role in making sure his students have access to it. "Everyone has a right to the internet," he says, and by internet he means more than just two bars on your phone.

Established in 1968, Diné is America's first tribal college, serving more than 1,000 students. In addition to the main campus in Tsaile, Ariz., it has several satellite campuses throughout the Navajo Nation. The college's students are scattered across 27,000 square miles and multiple states, and it's not uncommon for students to live several hours from campus.



When the pandemic forced campuses to close, Roessel was impressed that professors and staff were able to transfer all their work and classes online so quickly.

"I remember sitting back in my chair, I said, 'We did it.' " he recalls. "But most of our students had to go home and use their phones. So they ran out of minutes. They ran out of data. They couldn't access anything."

He remembers thinking, "We didn't even solve the right problem here."

The problem was student access: "We were sending a signal out, but nobody's getting it."

So Diné College shifted its focus to student access. It used federal CARES Act money to help purchase Wi-Fi hotspots and laptops for students. It built two additional microcampuses with internet access — one in Aneth, Utah, and another in Newcomb, N.M. — so students wouldn't have to drive as far to get connected.

The college also upgraded the connection it already had. Before the pandemic, Diné's on-campus internet bandwidth was about 400 megabytes per second. "You can imagine that in the best of times, we were, you know, very, very slow. And in the worst of times, we were standing still and falling forward," Roessel says. CARES Act money allowed the college to increase the strength of campus internet to 2.5 gigabytes per second, a major improvement.



But off campus upgrades posed a greater challenge. Roessel points to the limitations of the Wi-Fi hot spots the college handed out. In some locations, they just don't work well — students have told him they have to drive to the top of a nearby hill to get a good connection, so they're still doing their homework in their car instead of at home.

"We've got to look at the big picture and not just these little wins," he says. "I know it's helpful. Don't get me wrong, it is helpful. But there's a larger issue here. And if we don't address that, then that was a waste of tragedy."

The infrastructure bill offers a one-in-a-lifetime fix

One way Roessel is hoping to address the larger issue — the lack of connectivity — comes in the form of President Biden's infrastructure bill. The

bill includes \$65 billion for broadband access, aimed at improving internet service in rural areas, including tribal communities. Of that, \$2 billion is set aside for the Tribal Broadband Connectivity Program, a federal grant program.

"This is going to be a once-in-a-lifetime opportunity to pour in this much money," says Christopher Ali at UVA. "For students who are un- and under-connected, this will hopefully make a tremendous difference in their online learning experiences or just in their educational experiences more generally."

He's hopeful the bill will help reframe the way we think about the internet. "It's no longer a luxury, but let's start thinking about it as infrastructure, as essential as a paved road or a sewer system."

Experts say getting good internet to rural communities may take a while. The challenge now lies in implementing programs at the state and local level, and maintaining them once they're established. While most states do have task forces or internet initiatives, as of June 2020, [only about 26 states](#) had a centralized internet or broadband office to facilitate such updates and improvements. And Ali says those offices are often understaffed.

Improved internet paved the way for one student to try again

Last spring, after taking time off from school, Faylene Begay decided it was time to go back.

"Everything just revolves around the internet. I can't get away from it. So you have to adapt. If you don't have it. It's kind of like" she trails off looking out the window. "You have to make sure that you do," she finally says.



In early November, when NPR visited her home — an hour and a half drive from Flagstaff, surrounded by desert — she was in the middle of a Zoom biology class, learning about whales. Diné College had provided her with a free Wi-Fi hotspot, and she had a home internet connection now, though neither option is particularly strong.

Begay says it's an incredible improvement over a year ago — but it still makes being a college student a real challenge. Her internet can cut in and out, especially when it's windy, and twice now she's had to give class presentations without her planned visuals, because the internet wasn't stable enough.

Her chemistry class requires a special program to do labs online, but those programs take up too much bandwidth for her to connect from home. For that, she drives to the Tuba City satellite campus, which is now open, though

with limited hours, to use the school's internet.

She says despite her current internet challenges, being back in classes has offered her a lifeline, and a connection to professors and classmates at a time when she has felt really alone. She mentions the Navajo word *hózhó* several times to describe her reenrollment at Diné. It means balance and beauty, a state of harmony.

"I went through a really bad depression during the time that the pandemic hit," she explains. She was dealing with domestic violence, homelessness and a recent miscarriage.

"This is my reality," she says, "I've been fighting to be in college for so long."

Her uncle also died of COVID-19, a grief she says she's still processing. It's

been hard to escape the toll the pandemic has taken on the Navajo people. Across the country, Native Americans have been [hit especially hard](#) by COVID-19.

Going back to school helped Begay process that grief, and a class on microbiology helped her better understand the virus. She says that knowledge was empowering. She used it to educate her family about how to protect themselves. She says her new goal is to earn a bachelor's degree in biomedical sciences and maybe go on for a master's degree.

Her persistence and focus has left an impression on her children. On her fridge, she's taped up a photo of herself in a lab coat, looking into a microscope.

She says when her son sees the photo, he declares, "My mom's a scientist. I'm going to be a scientist, too."

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