

# WHAT IS BROADBAND?

**Broadband** is defined by the Federal Communications Commission (FCC), a government entity that regulates telecommunications, as an internet connection that is always on and faster than dial-up.

## DO I HAVE BROADBAND?

While the definition is a bit vague, it really means that if internet service available at your address (home business, organization, etc.) is slower than 25 megabits per second or Mbps download and 3 Mbps upload (Mbps refers to the amount of data that can be handled by your internet connection), 25/3 for short, then you are considered unserved. If you do have 25/3 Mbps service but not 100/20 Mbps available, then you are considered underserved. If either of these is the case, your address could be eligible for funds to provide service of at least 100/20 Mbps. In case you were wondering, “gig” service refers to speeds of 1,000 Mbps.

The FCC unveiled a new map and needs your help to make sure your address and internet service offered are accurate. Read more on how to review your address by reading this blog post: [3 Steps to Bring Better Broadband to Indiana – Purdue Center for Regional Development](#)



## WHAT TYPES OF BROADBAND TECHNOLOGIES ARE THERE?

Broadband technologies vary resulting in different internet speeds and reliability measured in Mbps per technology, but the most common ones include:

### DIGITAL SUBSCRIBER LINE (DSL)

This one uses your copper phone line to provide an internet connection.



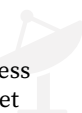
### CABLE

This one is usually offered by cable companies and rely on a combination of fiber-optic and coaxial cable.



### SATELLITE

This technology also requires an antenna at your address and line of sight with the satellite providing the internet connection. However, please note that this technology is not considered broadband by the upcoming federal funds. In other words, if your address has access to satellite service, you can still be considered unserved or underserved.



### FIXED WIRELESS

This technology requires an antenna and line of sight between your address and the tower providing the service.



### FIBER-OPTIC

This technology relies on very thin glass fibers, usually as thick as a human hair, to provide internet service.



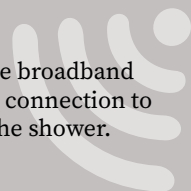
### FIXED VS. MOBILE BROADBAND

Upcoming broadband funds can only be used for what is called fixed broadband. This refers to the fact that the end-user (a home, business, etc.) is fixed or does not move. Mobile broadband refers to cellular data plans. All technologies described here are considered fixed broadband.



Cellular data provides internet service in a different way. These technologies include 3G, 4G, and/or 5G (do not confuse with 1 G(ig) service, see above). However, these are not considered fixed broadband and if available at your address, you are still eligible for broadband funds.

One last thing, your Wi-Fi relies on these broadband technologies. Consider your broadband connection to be your main water line while Wi-Fi is the shower.



# WHAT IS BROADBAND?

## WHY IS BROADBAND ACCESS DATA IMPORTANT?

The federal government, in partnership with states, is deploying broadband funds through the Broadband Equity, Adoption, and Deployment program also known as BEAD. Indiana is receiving close to \$870 million. A map compiled by the FCC will dictate where these funds go. So, we need to make sure Indiana's map is as accurate as possible. Continue reading below for more information.

## CONFLICTING BROADBAND INFORMATION

Part of the reason this map is being updated is because broadband data is very muddy. In the past, the FCC compiled data from providers that report where they offer service, with what technology, and their maximum advertised download and upload speeds. However, because this data is provider self-reported and not validated by consumers it can overestimate broadband availability. This time around, they are asking for your help to make sure the data reported by providers is accurate at the address level.

## SPEED TESTS

Another wrinkle to consider is that beyond internet service being available, is the issue of reliability and quality of service. One way to measure this is through speed tests. A speed test calculates your download and upload speeds (again, measured in Mbps). If your internet connection consistently delivers speed tests below what the provider says it is providing, there may be some quality issues. This in turn may make your address eligible for funds to build more high-quality internet service. You can see what service you subscribed to by checking out your internet bill.

To conduct a speed test on your existing service or to report an address with no service, please visit: [pcrd.purdue.edu/speedtest](http://pcrd.purdue.edu/speedtest)

And remember, speed tests are free so please complete as many as possible, as frequently as possible! The more data there is on your internet service, the better!

## ADOPTION AND AFFORDABILITY

In addition to having access to adequate internet, another issue is adoption. Many times, internet is available, but folks do not subscribe because they may not be able to afford it. Fortunately, there is a program in place called the Affordable Connectivity Program (ACP) that provides \$30 per month to eligible homes (\$75 in qualifying tribal lands and high-cost areas). Please visit [www.fcc.gov/acp](http://www.fcc.gov/acp) for more information and for instructions on how to enroll.



The Office of Engagement fosters reciprocal relationships with external partners to address societal challenges by leveraging University resources in teaching, research, and engagement. These resources include colleges and academic units, service learning, [Purdue Extension](#), and the [Purdue Center for Regional Development](#), to name a few.