

# Unlicensed & Shared Spectrum Benefits

## Unlicensed spectrum adds billions of dollars to the U.S. economy and is critical for digital resilience.

Because of unlicensed spectrum policy charted by the FCC nearly two decades ago, Wi-Fi has become a critical wireless technology for consumers and businesses. Multiple studies have found that unlicensed technologies contribute hundreds of billions of dollars annually to the U.S. economy. Wi-Fi, which runs over unlicensed spectrum, has done the job of keeping our economy running during COVID-19.

**\$995 billion to U.S. economy in 2021**

*Source: Wi-Fi Alliance, 2021*

**\$158 trillion to U.S. economy by 2025**

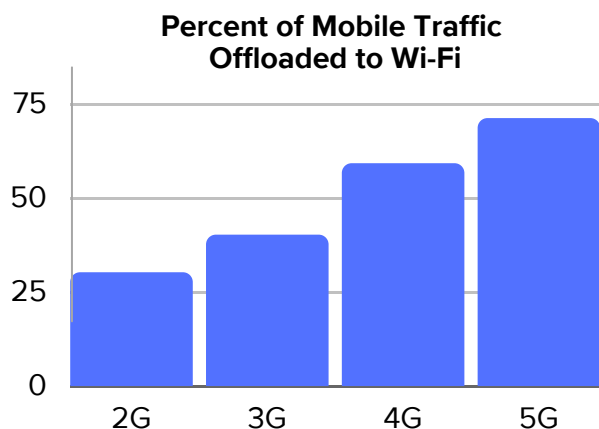
*Source: Wi-Fi Alliance, 2021*

**80% increase in Wi-Fi traffic due to COVID-19**

*Source: Katz, 2021*

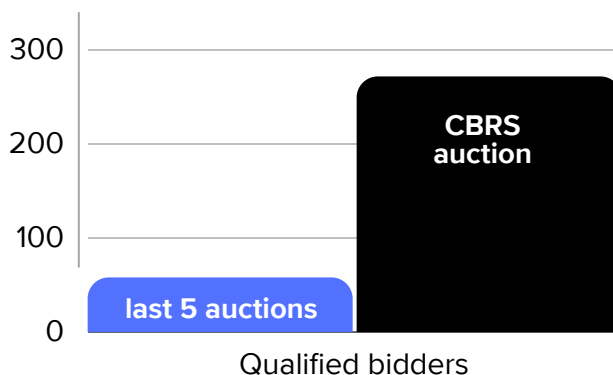
## Beyond direct economic benefits, unlicensed and shared spectrum boost broadband competition and support 5G networks to the benefit of U.S. consumers.

With every successive generation, Wi-Fi carries increased offload from cellular networks — 71% of traffic over 5G networks was expected to be offloaded to Wi-Fi in 2020, anticipated to grow to 74% by 2022.



*Source: Cisco VNI, 2019*

Shared spectrum — which includes flexible licensing and access rules like those in the 3.5 GHz Citizens Broadband Radio Service (CBRS) band — increases how many entities can provide broadband services. For instance, the FCC's shared spectrum CBRS auction generated significantly more participants than previous exclusive-use auctions.



## **A Shared Spectrum Success: the 5.9 GHz Band**

In 2020, more than 100 rural and suburban broadband providers received temporary approval to use the 5.9 GHz band for wireless broadband to deal with increased traffic needs due to COVID-19.

**Amplex of Luckey, Ohio reported that the additional spectrum was a "great help" to meet a 30% jump in bandwidth demand as a result of the pandemic.**

## **Unlicensed spectrum is open to all and promotes interoperability and U.S.-led innovation.**

Unlicensed spectrum is key to the U.S. strategy of supporting a diverse, open and interoperable next-generation wireless ecosystem. Because unlicensed spectrum can be used by anyone who follows the rules, it decreases barriers to entry, encourages innovation and supports a wider variety of business models. This enables smaller vendors and operators to introduce their own products and services, creating a more competitive and vibrant supplier ecosystem.

## **Wi-Fi and other unlicensed tech are critical to closing the digital divide.**

Wi-Fi is the most ubiquitous and widely available way to access broadband — from schools and libraries to community networks. The low cost of producing a Wi-Fi chip and deploying off-the-shelf Wi-Fi access points means lower prices for consumers and more equitable distribution of networks. This will enable consumers to experience the high-speed, low latency promises of next-generation networks first through Wi-Fi operating in the newly opened 6 GHz band. Those revolutionary applications enabled by Wi-Fi will include:



**Education**



**Healthcare**



**Connected  
Communities**



**Transportation**



**Production**

**Let's continue to prioritize shared and unlicensed spectrum.**