



Federal Reserve
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Is Federal Broadband Funding Going to States that Need it the Most?

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*The views expressed are my own and do not
necessarily reflect official positions
of the Federal Reserve System.*

Connectivity understanding limited by data challenges

IIJA provides \$65 billion for broadband investments through a series of grant programs.

While the IIJA funding is broad-based, **the lack of consistent and accurate data on broadband gaps remains a problem.**

Three commonly used sources of data:

1. Federal Communications Commission (FCC)
2. Connectivity data company Ookla
3. Census Bureau's American Community Survey (ACS)

Gap Assessment

FCC Data

Data are provided by the internet service providers

- Most comprehensive of these three datasets
- May not reflect the experienced connection speed, rather the provider's intended level of connectivity

Ookla Data

Collects internet speed information

- Reflects actual user experience
- User experience comes from voluntary usage, which may bias the data
- Tests are also more likely to take place when users are troubleshooting

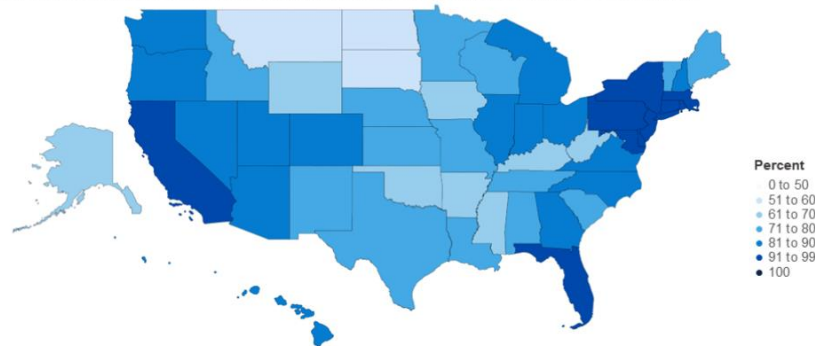
ACS Data

Comes from the Census Bureau's ACS

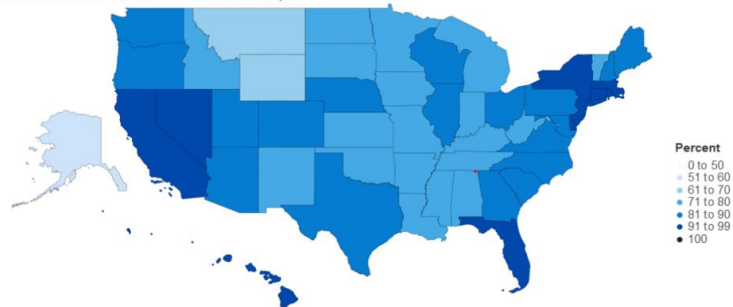
- More consistent and unbiased compared to the other sources
- the survey does not ask about broadband speed, just its presence
- Survey does not include group quarters, or broadband coverage in workplaces

Internet coverage measured by FCC, Ookla, and ACS Data

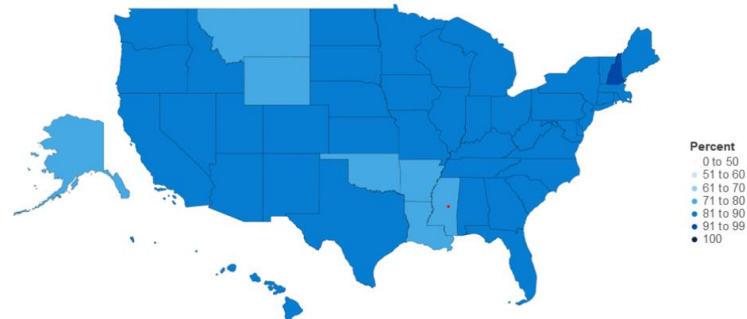
A. Federal Communications Commission: Percent of state with 100/20 fixed residential broadband coverage available



B. Ookla: Percent of tests in state at or above 100/20 mbps



C. American Community Survey: Percent of state with fixed residential broadband coverage available



NOTES: ACS data is through December 2022, FCC data through June 2023, Ookla data through Q2 2023. The threshold for availability is at 100 download mbps, 20 upload mbps for FCC and Ookla data.

SOURCES: IPUMS-USA; Ookla speed tests; Federal Communications Commission; authors' calculations.

Three data sources offer 3 different list of top-10 states with largest broadband gaps, but with some overlap

NOTES: Figure includes the 1- states with the largest broadband gap determined by each of the three data sources: FCC, Ookla, and ACS. All sources of data were converted to the same measure, the percent of state population that has access to fixed broadband internet. FCC and Ookla data are limited to broadband with speed at or above 100/20 Mbps. FCC data are updated through June 2023, while Ookla data are updated through September 2023 (third quarter), ACS is from year 2022 annual sample. State names in bold are top IJJA funded states measured by funds per state capita.
SOURCES: FCC, Ookla, IPUMS-USA; authors' calculations.



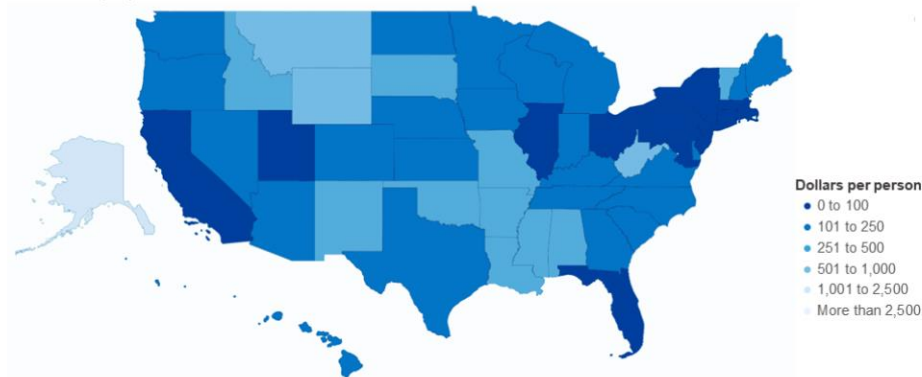
IJJA Investment in Digital Inclusion by State

IJJA funding intensity generally matches demand

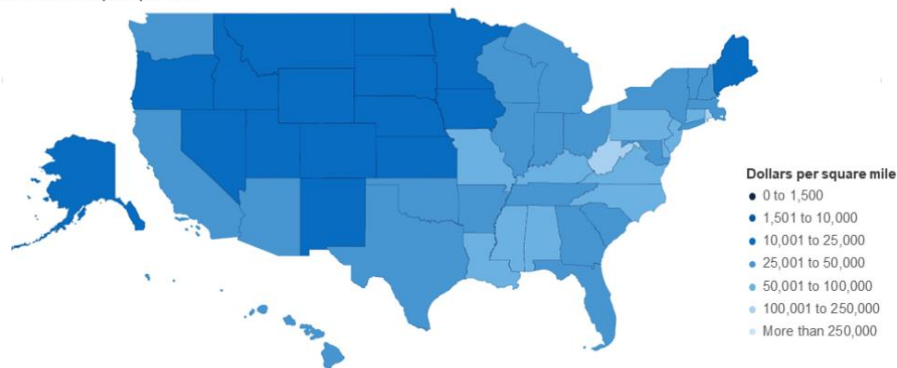
The top 10 states for per capita IJJA funding are: Alaska, Montana, West Virginia, Wyoming, New Mexico, Mississippi, Vermont, Arkansas, South Dakota and Missouri.

NOTES: IJJA funds announced as of November 21, 2023, measured in dollars per square mile and dollars per person. Affordable Connectivity Program funds are not allocated to states and are therefore excluded from the data source.
SOURCES: "Investing in America | The White House." November 21, 2023, <https://whitehouse.gov/invest>.

A. Dollars invested per person



B. Dollars invested per square mile



Is IIJA funding consistent with connectivity gaps?

Overall, funding is highly aligned with broadband gaps.

But there are still gaps:

- Given the lack of density in rural communities, **estimates to connect remote locations range from \$50,000 to \$300,000** per household. These investments are hardly profitable, and therefore require private-public partnerships.
- A report by Cartesian, a telecommunication consulting firm, calculated that the current IIJA funding might be able to support 100/20 mbps internet deployment, but to address the forward-looking needs of national infrastructure (estimated at 100/100 mbps) **costs approximately \$106 billion to \$179 billion, more than double the federal funding allocated.**

Stay Connected

For questions and further discussion, please reach out to **Marycruz De Leon** at [marycruz.deleon@dal.frb.org] and **Kassandra Huhn** at [kassandra.huhn@dal.frb.org].

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