



REDACTED – FOR PUBLIC INSPECTION

November 16, 2018

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: Modernizing the FCC Form 477 Data Program
WC Docket No. 11-10

Madam Secretary:

This letter provides notice of an oral ex parte presentation to the Commission in the above-captioned docket. On November 14, 2018, undersigned counsel, along with Paula Boyd, John Kahan, and Allen Kim of Microsoft Corporation, met with Allison Baker, Kirk Burgee, John Emmett, Ying Ke, Ken Lynch, and Steven Rosenberg to discuss broadband mapping.

Microsoft discussed the Commission's Form 477 process and related efforts to increase the accuracy of broadband measurements, which in turn will improve the Commission's maps depicting access and availability of fixed and mobile broadband in rural areas. Improved maps will also further the Commission's objective of accurately targeting federal universal service support to areas most in need. Mr. Kahan discussed Microsoft's analytic tools and data which can assist the Commission in identifying where broadband is available, as well as understanding speed and latency at a granular level. This information can be made available to assist the FCC and other government agencies in improving their broadband mapping efforts and the quality of Form 477 data.

A redacted copy of the company's slide presentation, used during the ex parte presentation, is enclosed. This redacted public copy has been marked "**REDACTED – FOR PUBLIC INSPECTION.**" Microsoft is also submitting to the Commission, via hand delivery, a confidential copy of the slide presentation, with certain portions marked "**CONFIDENTIAL – NOT FOR PUBLIC INSPECTION.**"

Hon. Marlene H. Dortch
November 16, 2018
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Should you have any questions, please contact the undersigned directly.

Sincerely,

MICROSOFT CORPORATION

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Enclosure

cc: Allison Baker
Kirk Burgee
John Emmett
Ying Ke
Ken Lynch
Steve Rosenberg
John Kahan
Allen Kim



Broadband Discussion

John Kahan

Chief Data Analytics Officer | Microsoft, Corporate, External and Legal Affairs



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Introduction



Introduction



AI for Good

AI for Earth



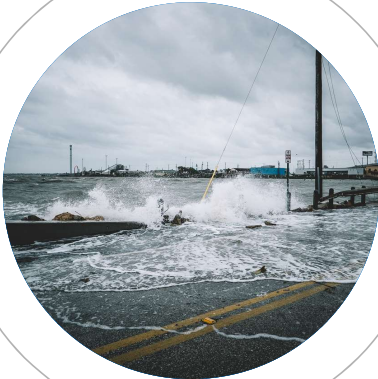
AI for Accessibility



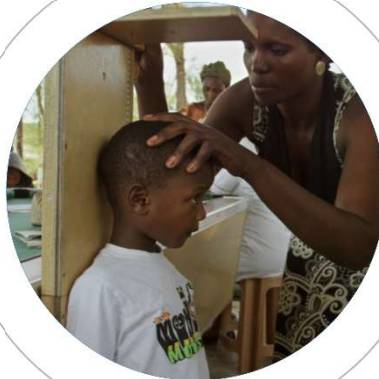
AI for
Humanitarian Action



9/24: AI for **Humanitarian Action**



Disaster relief



Needs of children



**Refugees &
displaced people**



Human rights

Chief Data Analytics Officer, CELA

Mission: Infuse Data Science and AI to address the world's great challenges

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Consumer Broadband Analysis



8% of Americans and 50% of world population have no access to internet

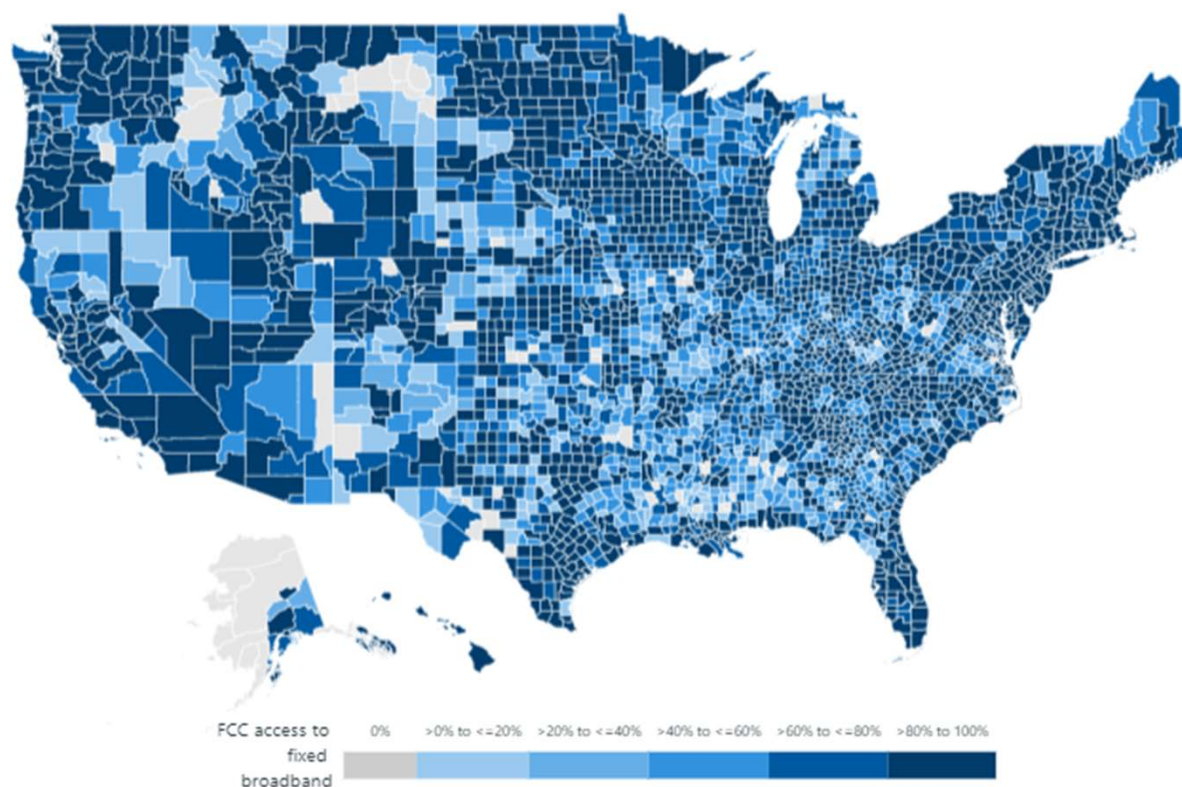


Getting internet access to rural areas can be difficult. Credit: shutterstock.com

FCC: Percent Population with Access to Fixed Broadband

92% of the US population has access to fixed broadband

8% or ~25M people lack access to fixed broadband of which 19M are in rural areas



Data source: 2018 FCC Broadband Report: <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>

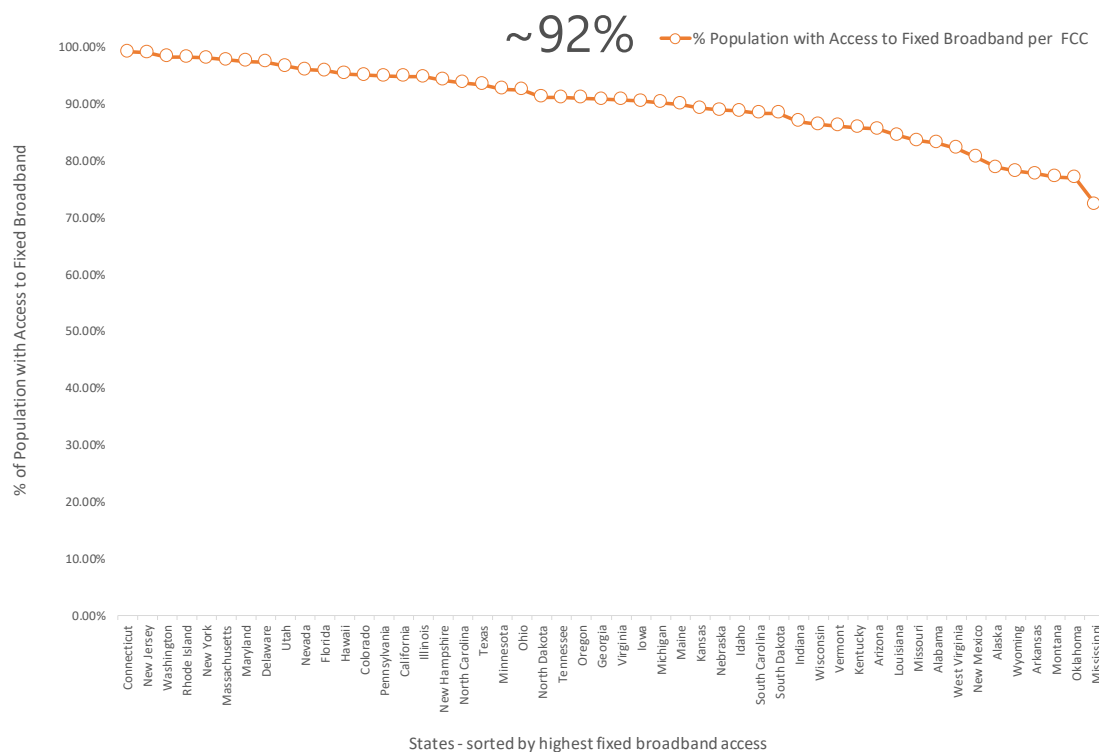
Opportunities to Improve Data Accuracy

Two areas to improved data accuracy are the definition of service in a census block and tracking actual deployment

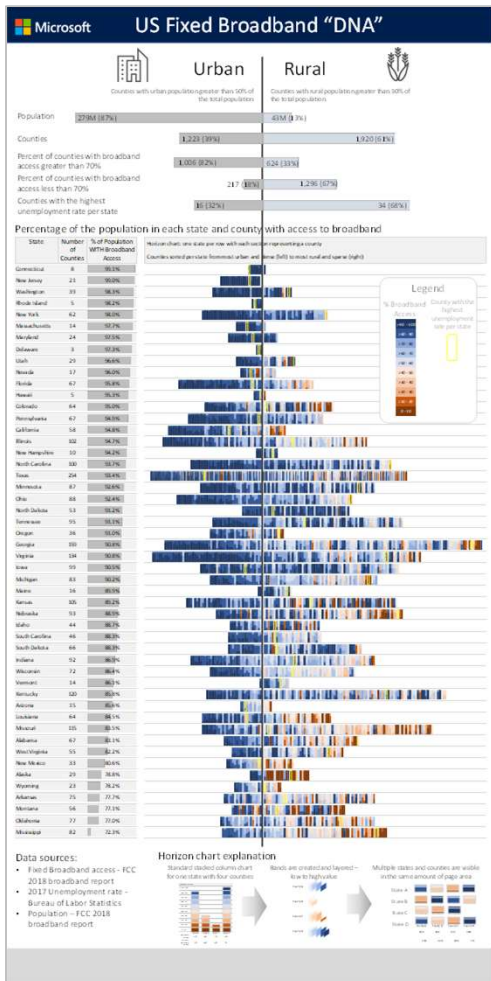
2018 Broadband Deployment Report - Section 43 para. 43
"A whole census block is classified as served if the Form 477 or SBI data indicate that **service is being provided anywhere in the block**. Therefore, it is not necessarily the case that every person will have access to a service in a block that this Report indicates is served"

Form 477 - Section 5.3

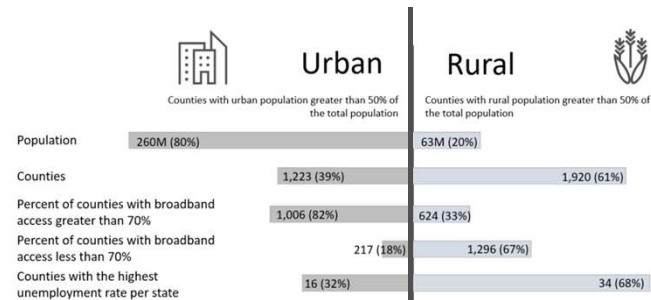
"Available: For purposes of this form, fixed broadband connections are available in a census block if the provider does, or **could, within a service interval that is typical for that type of connection**—that is, without an extraordinary commitment of resources—provision two-way data transmission to and from the Internet with advertised speeds exceeding 200 kbps in at least one direction to end-user premises in the census block."



Data Visualization to Uncover Additional Insights



- Ability to "see" large amounts of data in a condensed format
- Notice the most rural and sparse counties have the lowest percent of population with access to fixed broadband
- Majority of the counties with the highest unemployment rate in each state are found in the most rural counties

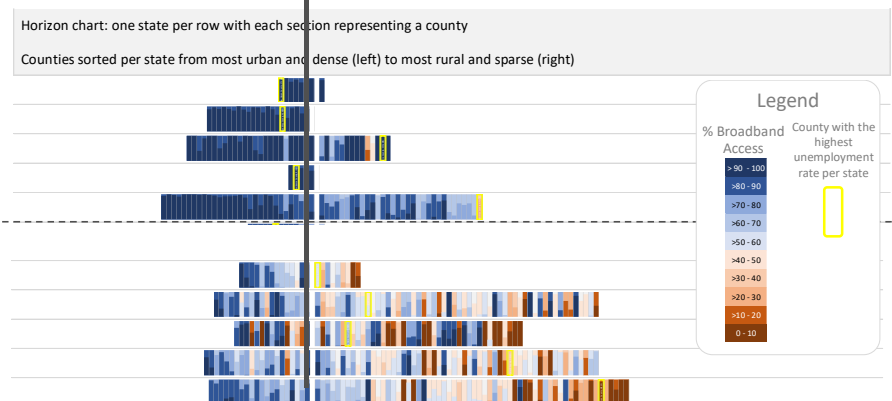


State	Number of Counties	% of Population WITH Broadband Access
Connecticut	8	99.1%
New Jersey	21	99.0%
Washington	39	98.3%
Rhode Island	5	98.2%
New York	62	98.0%

Top 5 Broadband Access

Wyoming	23	78.2%
Arkansas	75	77.7%
Montana	56	77.1%
Oklahoma	77	77.0%
Mississippi	82	72.3%

Bottom 5 Broadband Access



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A photograph of a healthcare worker, likely a nurse, wearing blue scrubs, a surgical cap, and a face mask. She is holding the hand of a young child who is wearing a blue protective gown and a blue cap. They are walking down a hospital hallway. The worker has a black bag slung over her shoulder. The child is looking down at their hand.

Thank you.

"The possibilities are endless..."