When good is the enemy of great: Rural Broadband in a time of COVID-19

Programme in Comparative Media Law and Policy (PCMLP)

Oxford University

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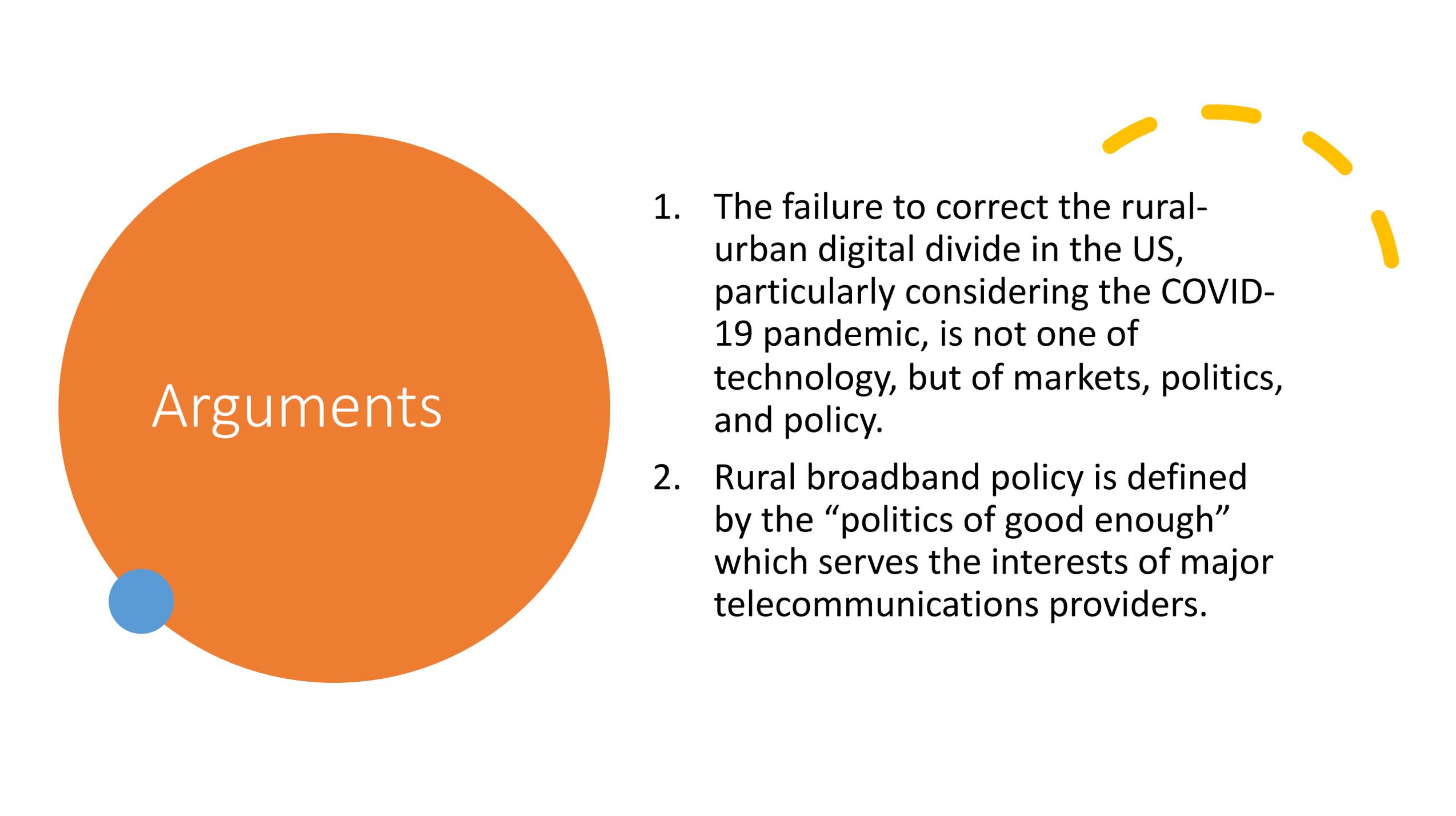
Arguments

1. The failure to correct the rural-urban digital divide in the US, particularly considering the COVID-19 pandemic, is not one of technology, but of markets, politics, and policy.

2. Rural broadband policy is defined by the "politics of good enough" which serves the interests of major telecommunications providers.

Farm Fresh Broadband: The Politics of Rural connectivity (2021, MIT Press)

1) Where is the $6 billion a year the federal government spends on rural broadband subsidies going?

2) With a particular focus on agricultural communities, how is broadband policy lived and experienced in rural America?

Methods

Analysis of 10,000+ pages of policy documents from 2009-2020

90+ in-depth interviews

3600-mile road trip across the United States

- Needed to humanize policy
- Elite interviews and document analysis were insufficient to tell this story
- The #ruralbroadband #roadtrip in the summer of 2018
- 3600 miles of driving
- Spoke with elected officials, farmers, broadband users, librarians, state representatives, interest groups, people in grocery stores
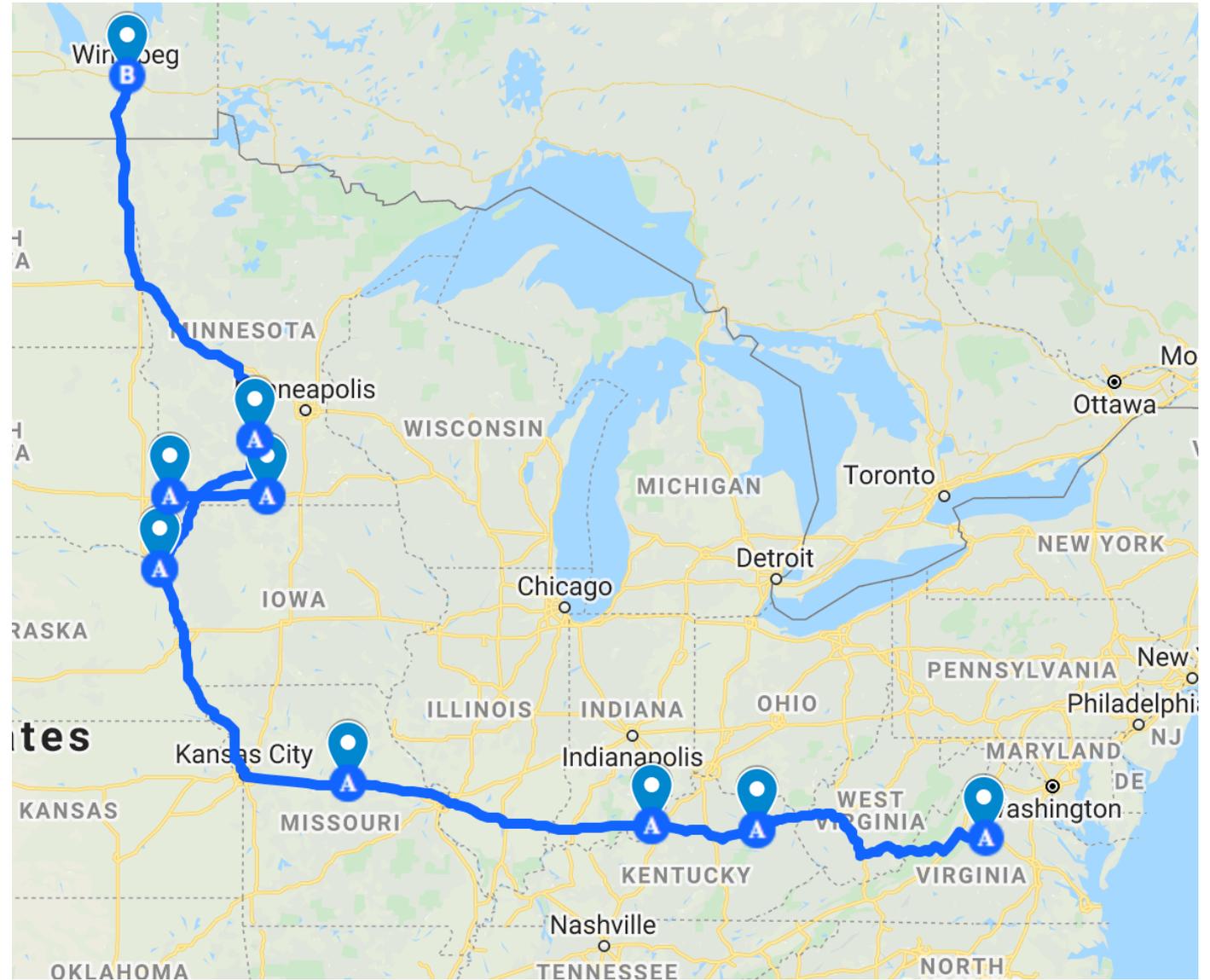
Theory

- Political Economy of Communication
- Theories of:
  - Power
  - Legitimacy
  - Polycentric Regulation
 - Policy Failure
  - Regulatory Capture

Publications

- *Farm Fresh Broadband* (2021)
- "The Politics of Good Enough" (*IJOC,* 2020)
- "A national rural broadband plan" (*NYT,* 2019)
- "Reluctant Regulator" (*Telecommunications Policy,* 2018)

What is broadband?

An "always on" connection of 25 mbps download and 3 mbps upload ("25/3")

(FCC, 2015)

US broadband
access by county
(Average percentage)

0% - 32%
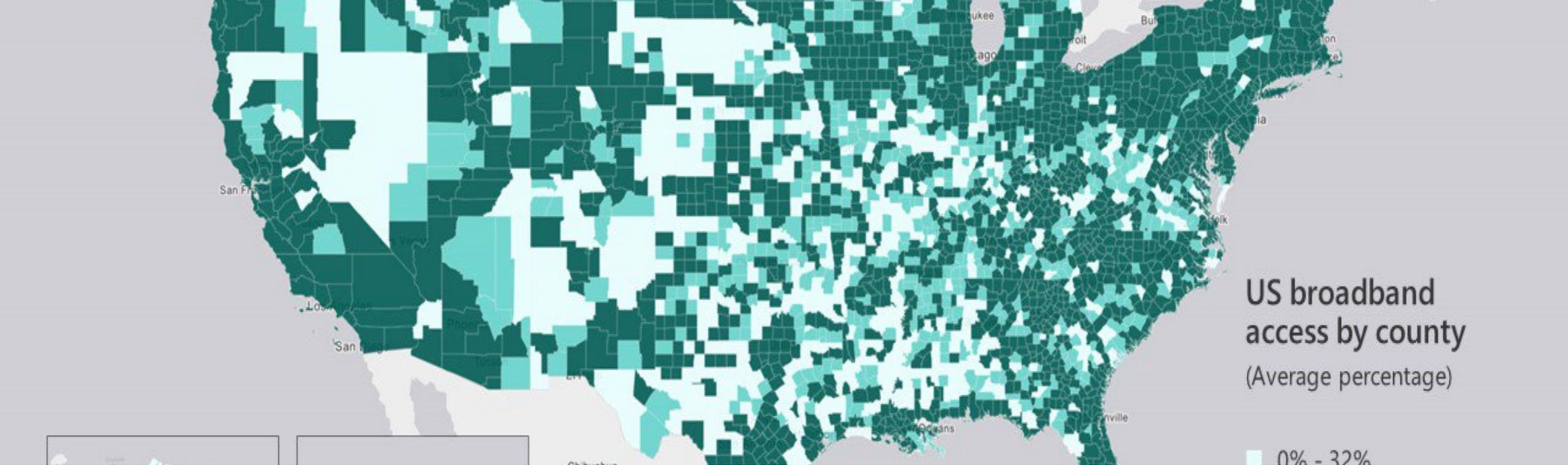
94.4% of Americans have access to broadband

98.5% of urban Americans have access to fixed broadband

77.7% of rural Americans have access to fixed broadband

72.3% of those on Tribal lands have access to broadband

(FCC, 2020)

The Rural-Urban Digital Divide

One of Infrastructure:

- 16.9 million rural Americans lack broadband
- 63% of rural Americans have a home subscription
- 15% of rural adults say they never go online
- 18% of rural students lack broadband access
- 24% of rural Americans say it is a major issue

(Pew 2018a, 2018b)

Rural Americans pay more, have fewer options, and worse connections....

Only 19% have a choice in provider

Rural Americans pay 37% more

(Broadbandnow.com, 2019; Whitacre, 2016;)

The Urban Digital Divide

One of affordability:

- 44% of low-income Americans (earning less than $30,000/yr) do not have a home broadband subscription

- 18% of the population of New York City lack access to broadband because of cost or other factors

(Pew, 2019)

The Racialized Digital Divide
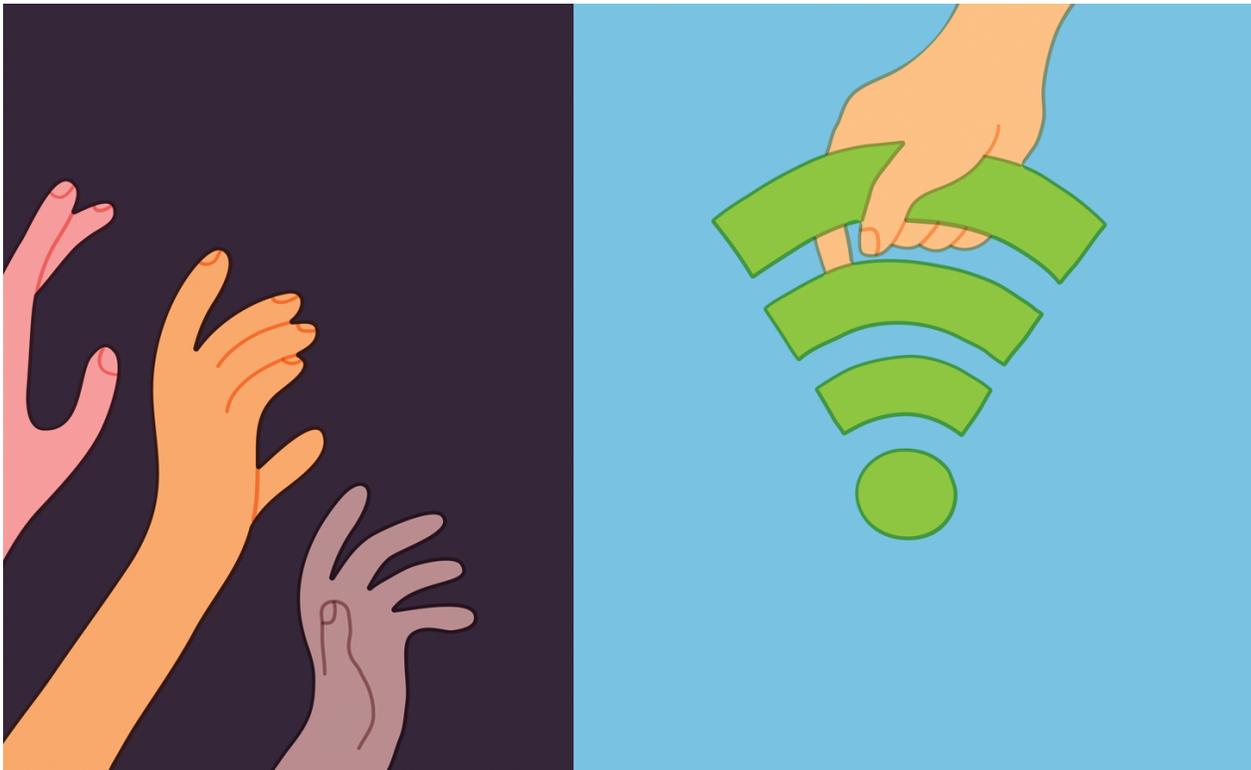
- 34% of Black adults do not have a home broadband connection

- 39% of Latinx adults do not have a home broadband connection

- 47% of those on Tribal lands do not have a home broadband connection

(NPR, 2018; Pew, 2019; Sharpton et al., 2020)

Broadband and COVID

- The migration to online platforms for work, study, play, life

- Concerns that American networks can not keep up (esp. satellite, DSL, cable)

- A "matter of life and death" (UN, 2020)

- Those without home broadband are less likely to social distance (Chiou & Tucker, 2020)

- Lack of access for those recently unemployed because of limitations in the Lifeline program

- Students without broadband are falling behind: "The New Homework Gap"
    - "The cruelest part of the digital divide" (Rosenworcel)

- Use of library and McDonald's parking lots for Wi-Fi

- Hotspot shortage because of distribution

- Lack of FCC authority

Broadband as a Right

- Civil Right (Sharpton, Starks, Gupta, Morial and Coley 2020)

- Human Right (Peacock, 2019)

The 5 pillars of rural broadband

Economic Development

(Hite, 1997; Malecki & Moriset, 2008; Grubesic & Mach, 2017; Townsend et al. 2013; Deller & Whitacre, 2019)

Education

(Gallardo, 2016; Townsend, et al 2013; Klein, 2013)

Telehealth

Gallardo (2016)

Civic Engagement

(Mossberger, Tolbert & McNeal, 2012; Whitacre, 2017; Whitacre & Manlove, 2016)

Quality of Life

(Whitacre, Gallardo & Strover, 2014; Strover, 2019; Duarte, 2017; Mahasuweerachai et al. 2010)

"

Everything is better with better broadband

\- Bernadine Joselyn, Blandin Foundation (Minnesota)

"Broadband is the next electricity"
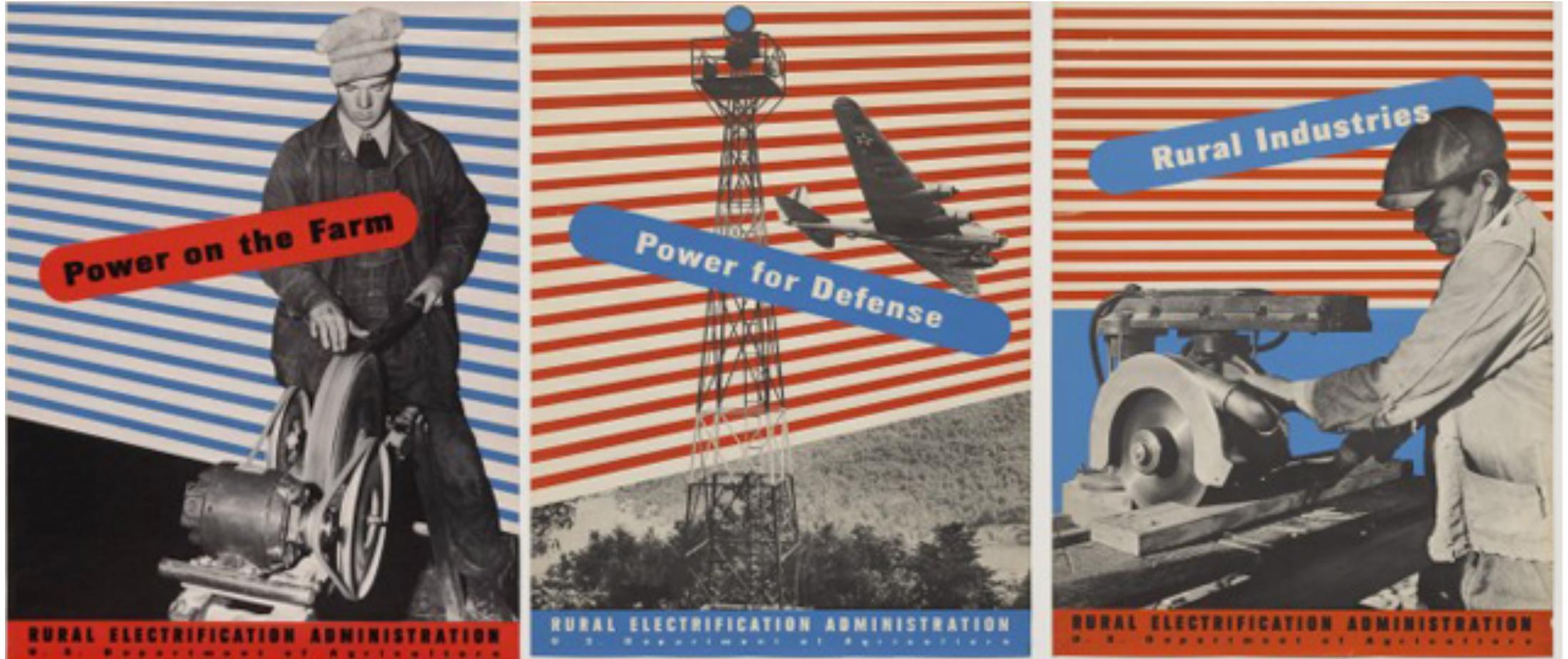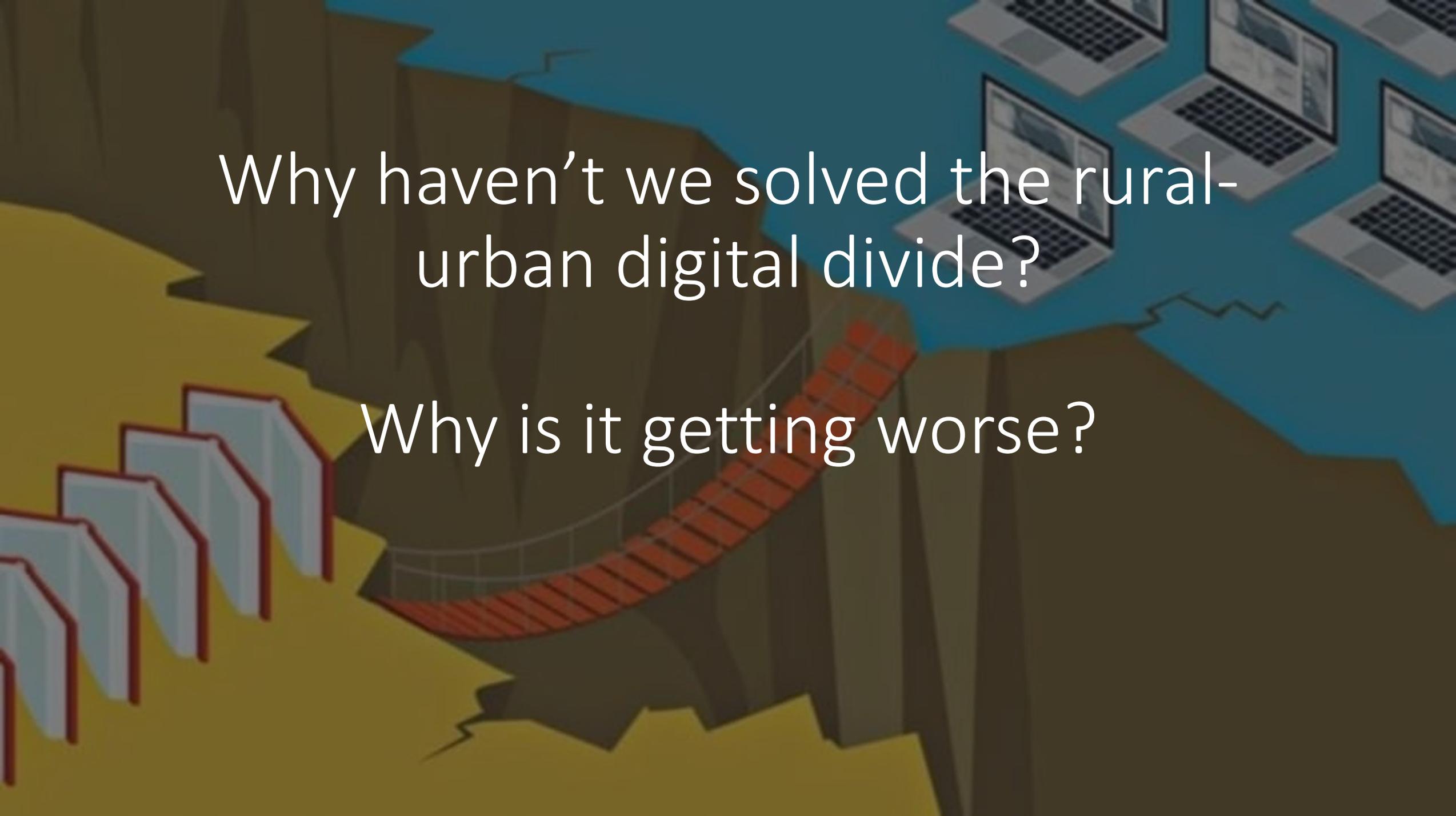
Why haven't we solved the rural-urban digital divide?

Why is it getting worse?

Market Failure

When the market is unable or unwilling to provide for a socially important good because of a lack of return on investment (Pickard, 2013; Bator, 1959)

Rural Penalty

The material and figurative costs paid by rural residents and businesses for their geographic distance from the centers of commerce and culture (Nicholas, 2009; Hite, 1997; Parker et al., 1989)

The Failure of Rural Broadband Policy

Management, Meaning, Mapping, and Money

"Good Enough"

- Rural broadband policy in the United States is defined by the idea of "good enough" that encourages the fast deployment of outdated technologies and benefits the largest telecommunication and satellite companies.

- With the deployment of fiber optics and the launch of 5G, we have a real-time case study of the politics of good enough.

- Rural America is stuck "in the dial-up age" (Levitz & Bauerlein, 2017)

- Good (enough) is the enemy of great

Failure 1: Management

Management

- Rural Broadband is a polycentric regulatory environment (Black, 2008)
    - Federal Communications Commission (FCC)
    - United States Department of Agriculture (USDA)
    - National Telecommunications and Information Administration (NTIA)

2009 Rural Broadband Strategy

Bringing Broadband to Rural America — Report on a Rural Broadband Strategy. Michael J. Copps, Acting Chairman, Federal Communications Commission, May 22, 2009

- In 2008, Congress ordered the FCC and USDA to craft a national rural broadband strategy
- Received minimal public comments
  - Major theme was interagency cooperation
- Released in 2009
- Authored by the FCC (with seemingly little input from USDA)
- Eclipsed by the 2010 National Broadband Plan

One block away but miles apart

But I think that FCC doesn't always understand its relationship to RUS, it considers itself the big dog, and it's going to do what it's going to do, and it doesn't want to be trapped.

(Jonathan Adelstein, personal communication, 2018)
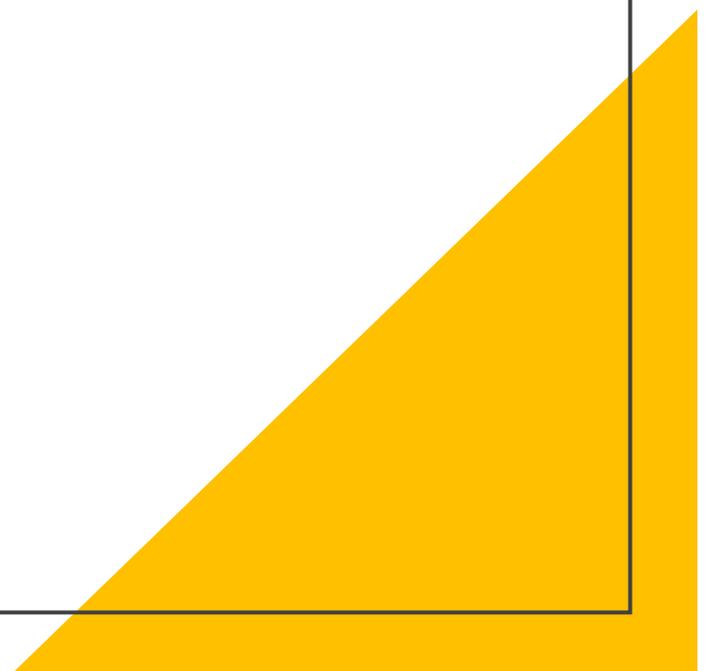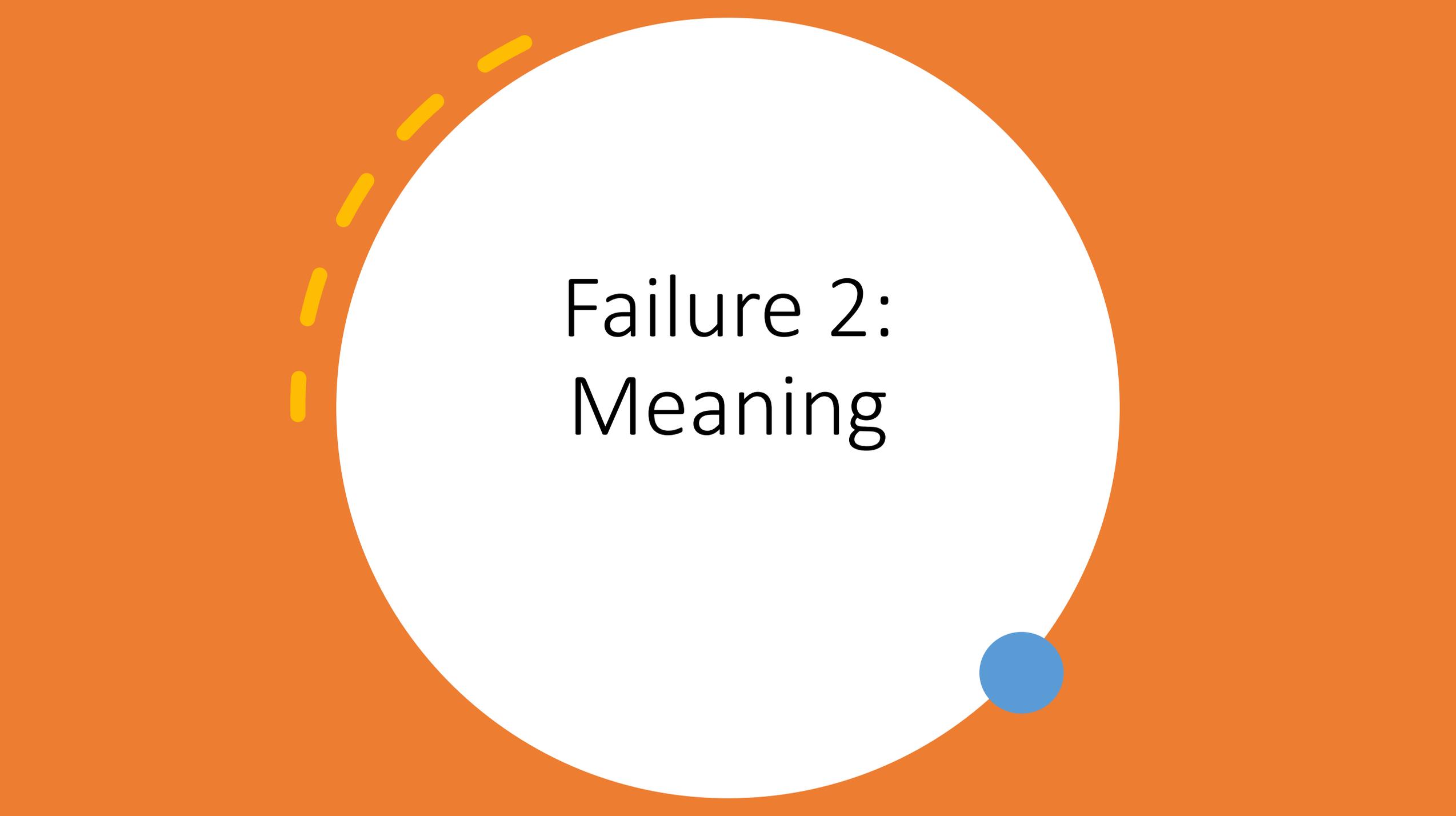
Failure 2: Meaning

Problems with 25/3 definition

It is outdated (set in 2015)

It does not encompass Americans' current broadband needs or usage

- Average download speed in the US: 135 MBPS
- Average upload speed in the US: 52 MBPS
- Average daily data usage: 12 GB (up to 15 in COVID)

It is asymmetric

- Privileges **download** over **upload**
- Download is about **consumption** (think Netflix)
- Upload is about **production** (business transactions, Zoom, homework)

Technological Neutrality

- Policies cannot discriminate against (or favor) a specific technology (Maxwell & Bourreau, 2014)

- When coupled with a 25/3 definition of broadband, a policy of technological neutrality favors inadequate technologies provided by incumbent telecommunication and satellite companies
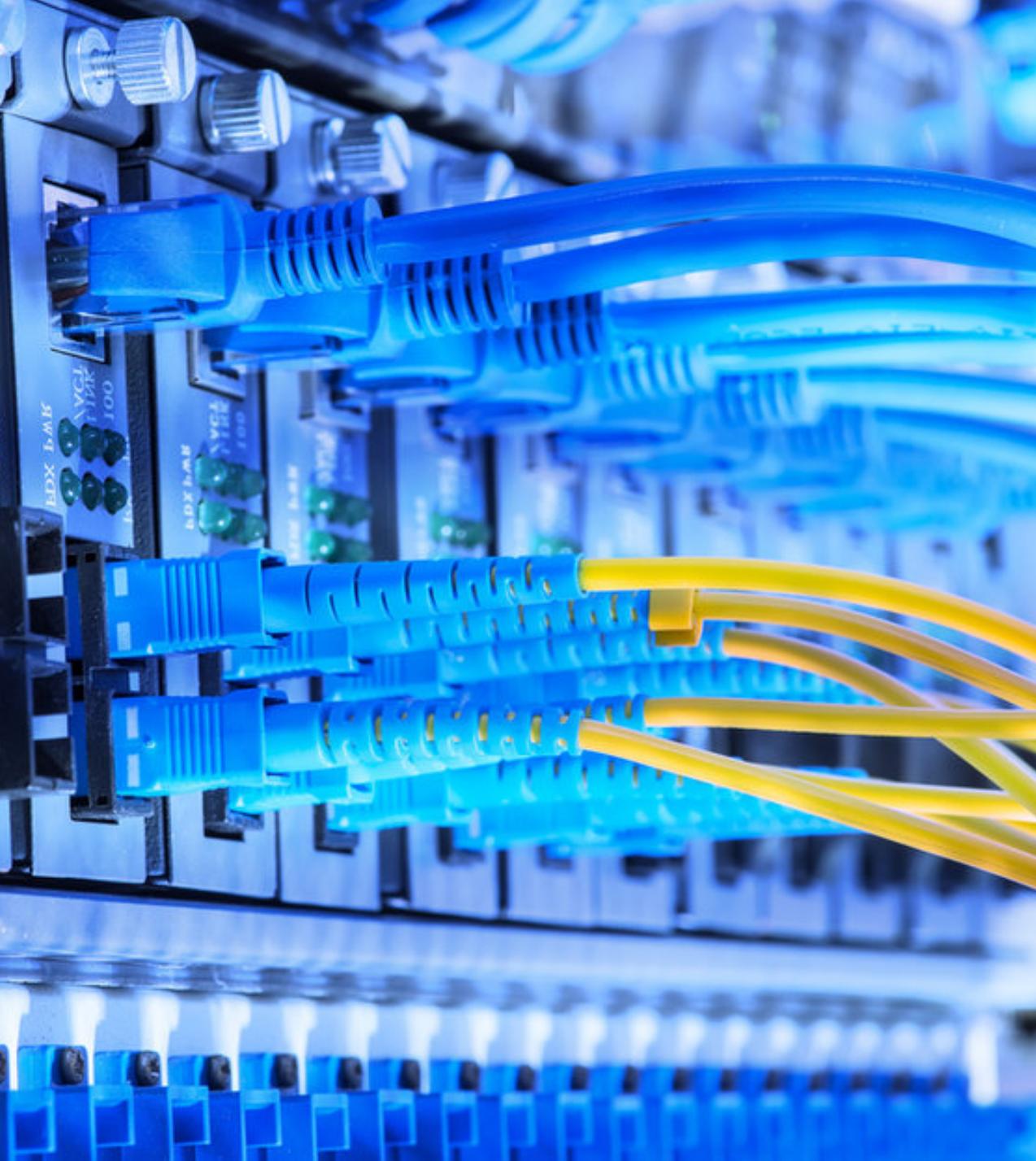
Not all broadband access technologies are equal!

(DSL & Satellite cannot measure up!)
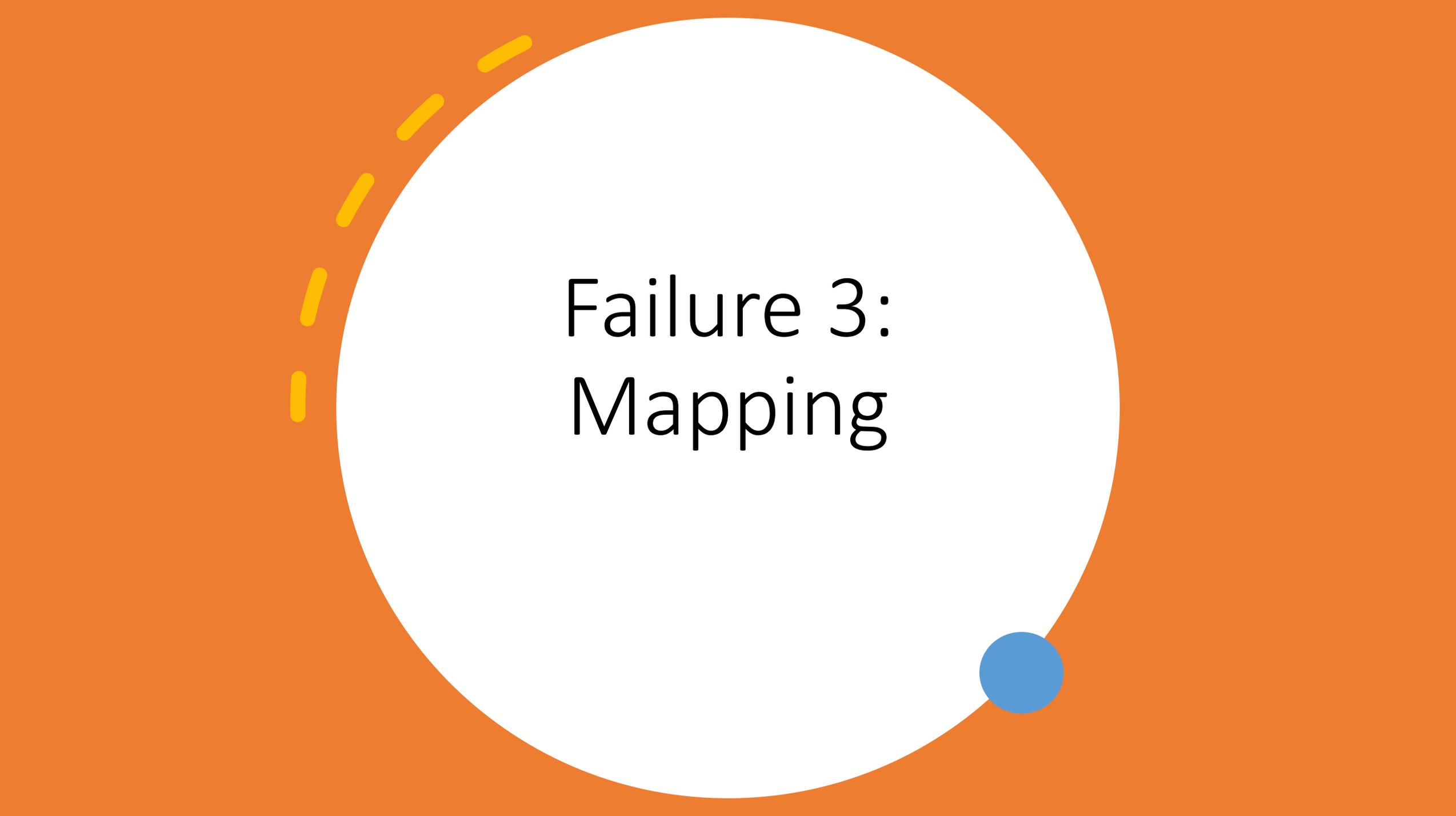
Failure 3: Mapping

Broadband Deserts
The FCC's data is wrong

- FCC data is off by at least 50% (Meinrath, 2019)

- US Telecom Study found 38% more broadband deserts

- Microsoft: 162.8 **million** lack broadband!

The national broadband map

Broadband data is self-reported by industry

Collected at the census block level: One building served = entire block served

ISPs report advertised speeds not actual speeds

Includes satellite as "fixed"
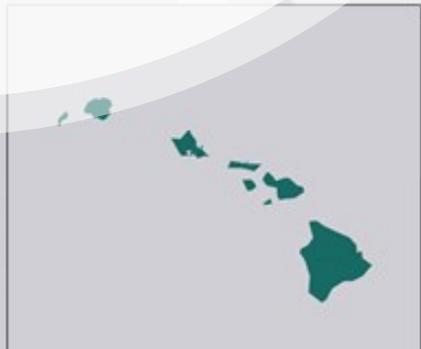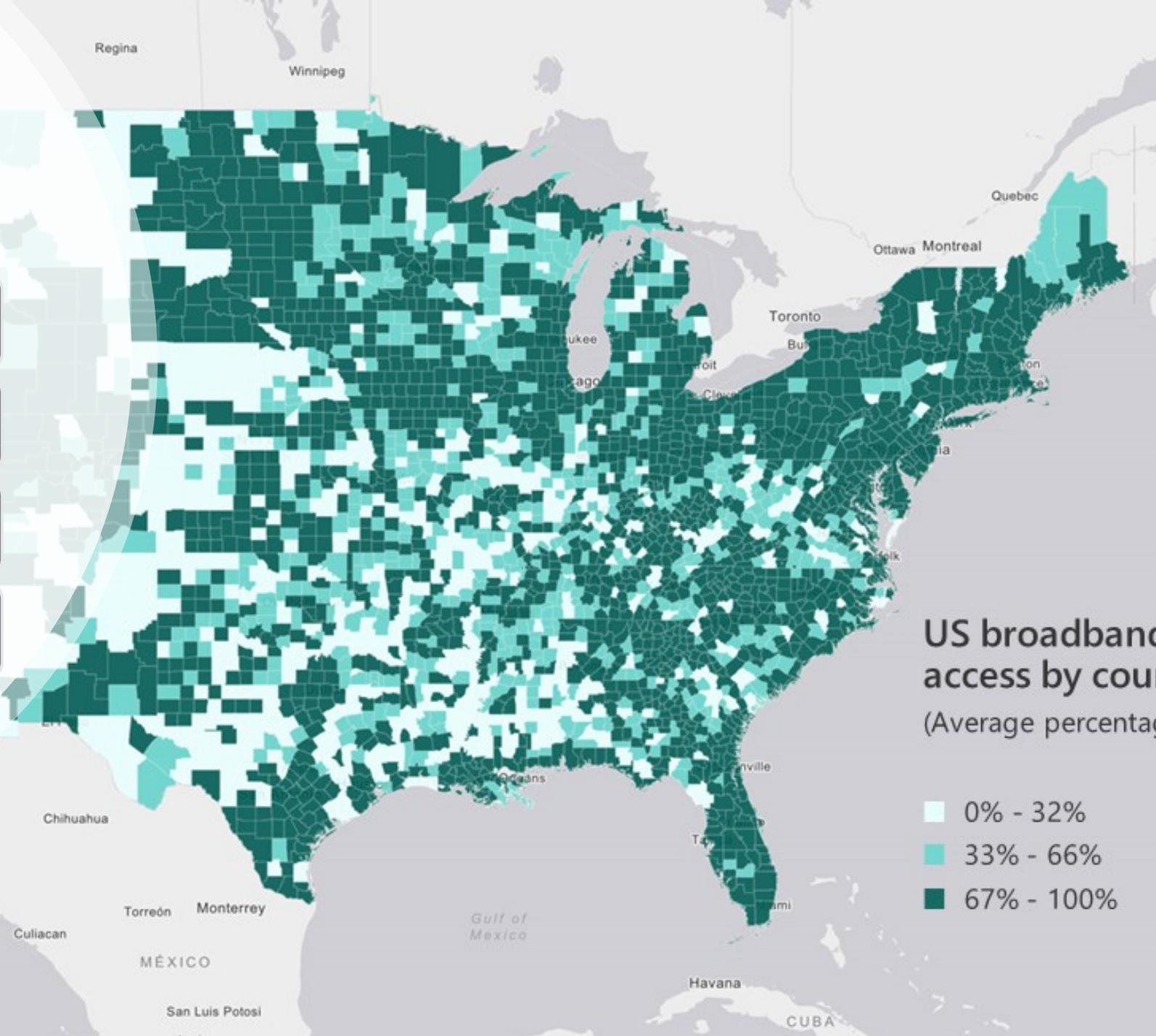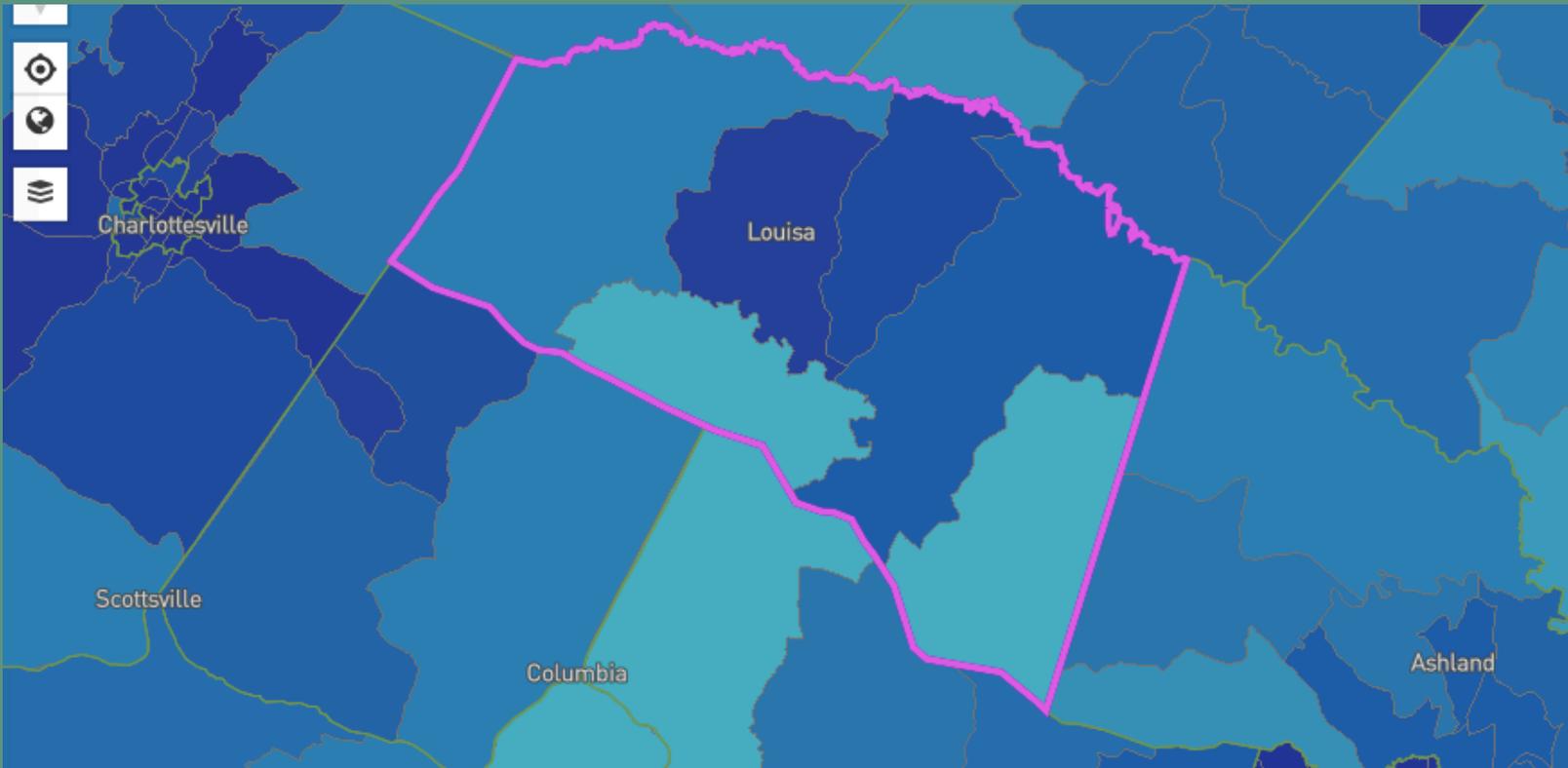
US broadband access by cou
(Average percentag

- 0% - 32%
- 33% - 66%
- 67% - 100%
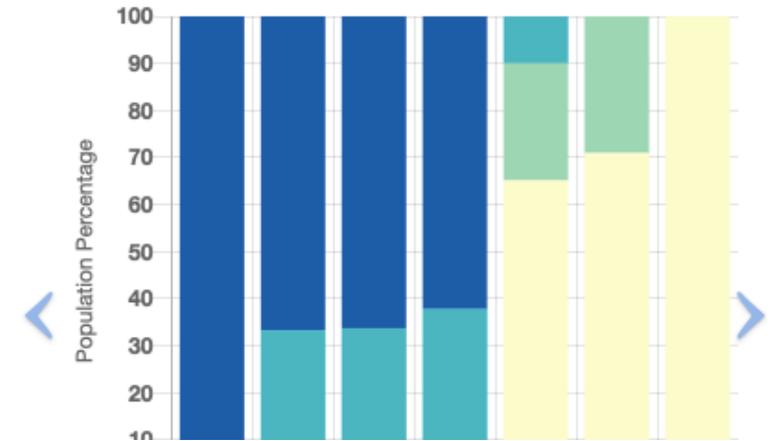
Louisa County, VA

The FCC says that Louisa is 100% served with providers offering at least 25/3
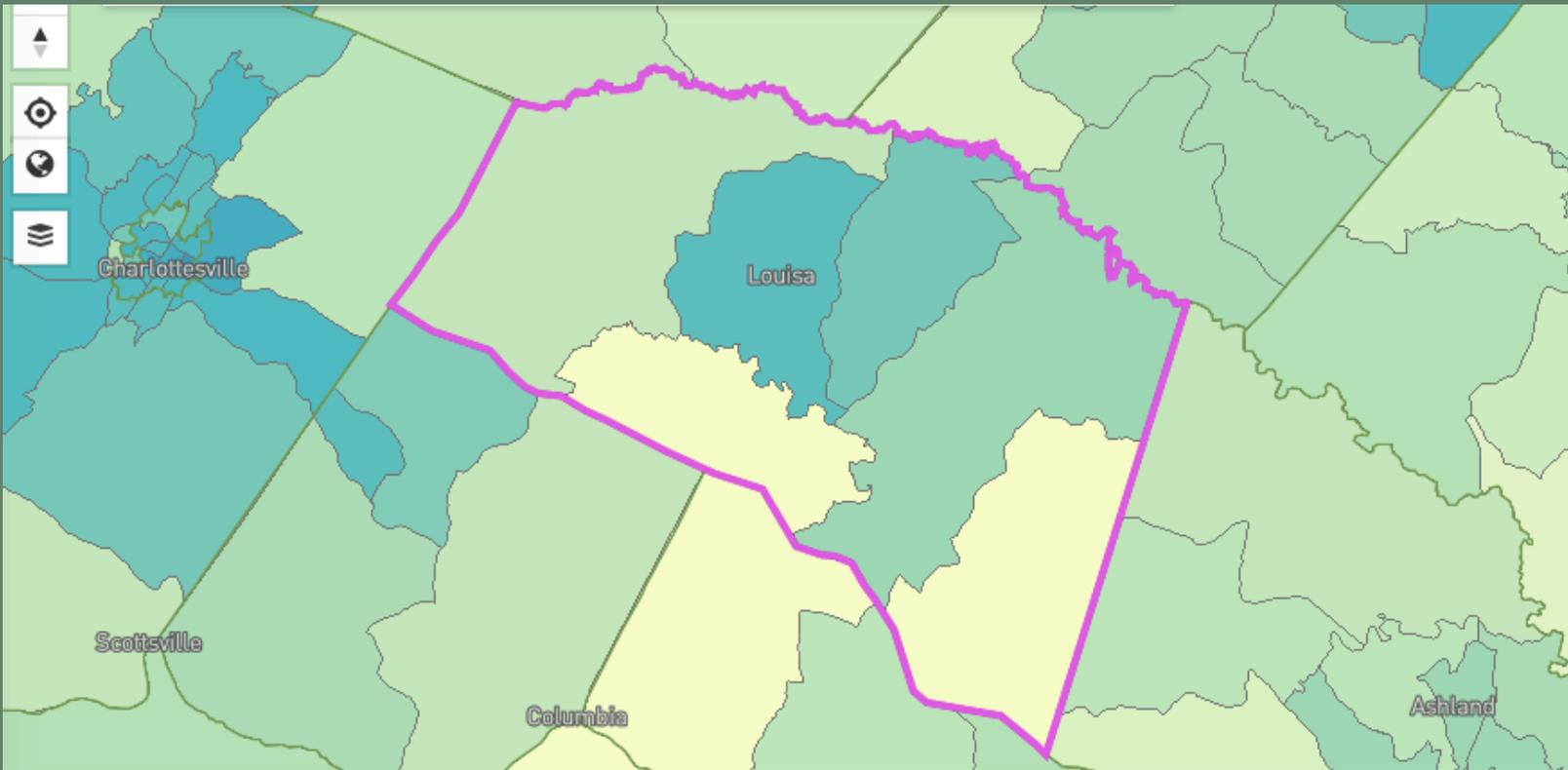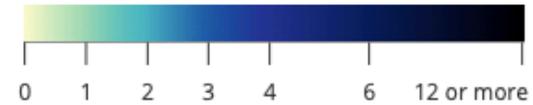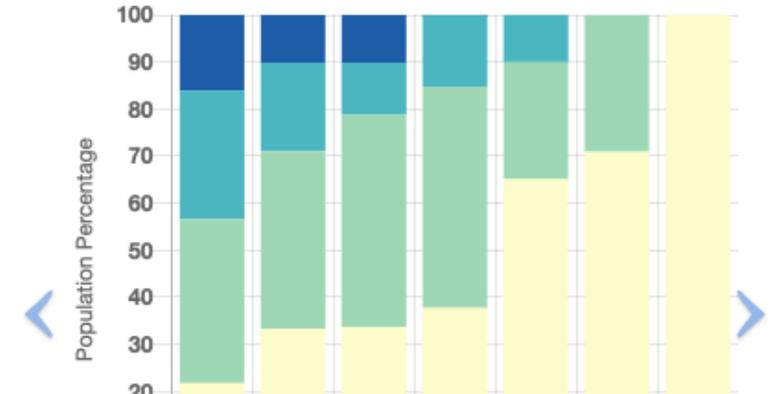
Louisa County without satellite

Only 40% of the county gets 25/3

Louisa county speedtests

- The average download speed in Louisa is 3.91 mbps

- The average upload speed in Louisa is 1.69

Louisa

Source:measurement

|	↓	↑
Dec 2014	7.92 Mbps	2.91 Mbps
Jun 2015	4.60 Mbps	1.59 Mbps
Dec 2015	2.48 Mbps	1.35 Mbps
Jun 2016	1.12 Mbps	2.22 Mbps
Dec 2016	3.90 Mbps	1.55 Mbps
Jun 2017	2.11 Mbps	1.48 Mbps
Dec 2017	4.37 Mbps	2.24 Mbps
Jun 2018	4.44 Mbps	1.75 Mbps
Dec 2018	3.91 Mbps	1.69 Mbps

Louisa
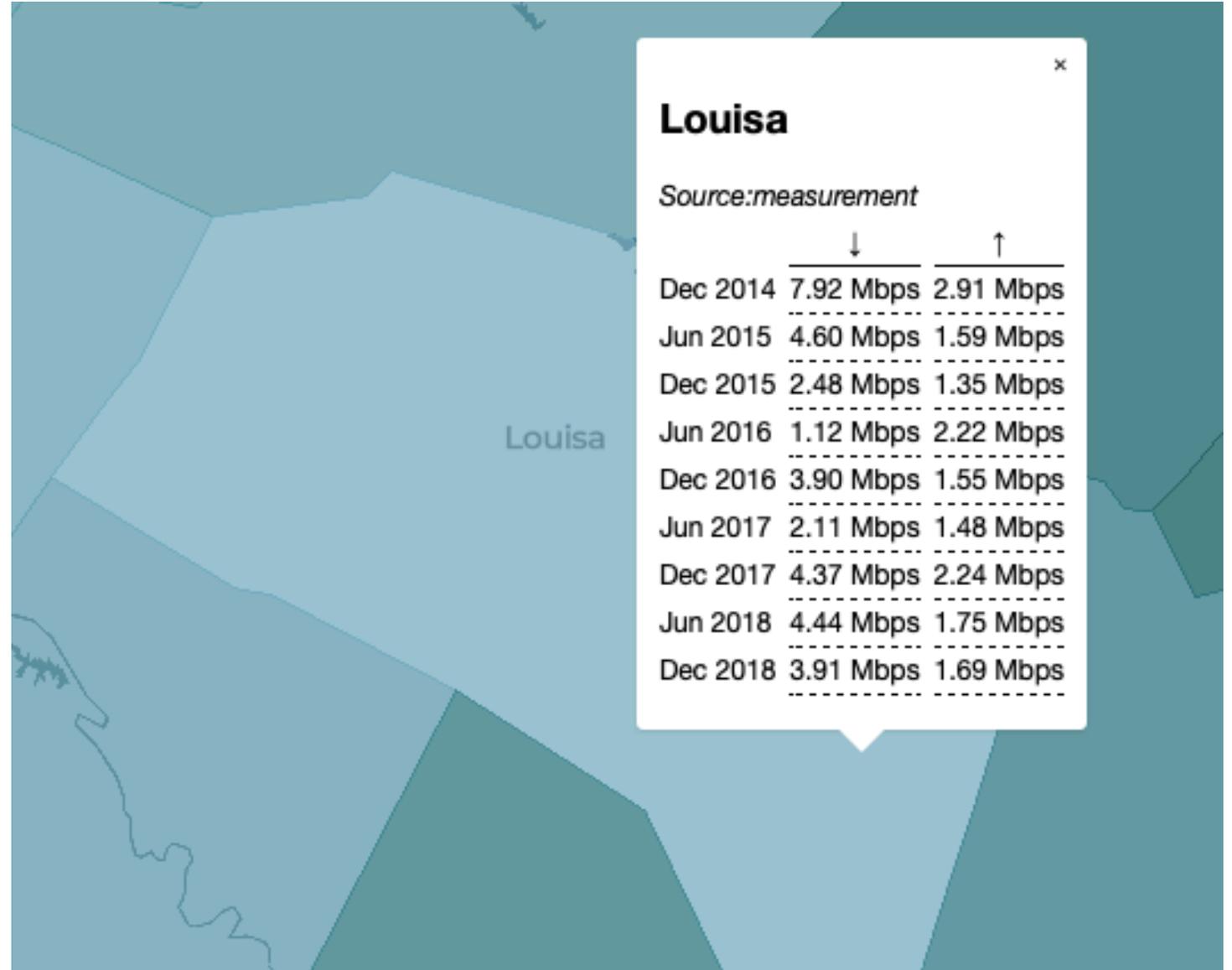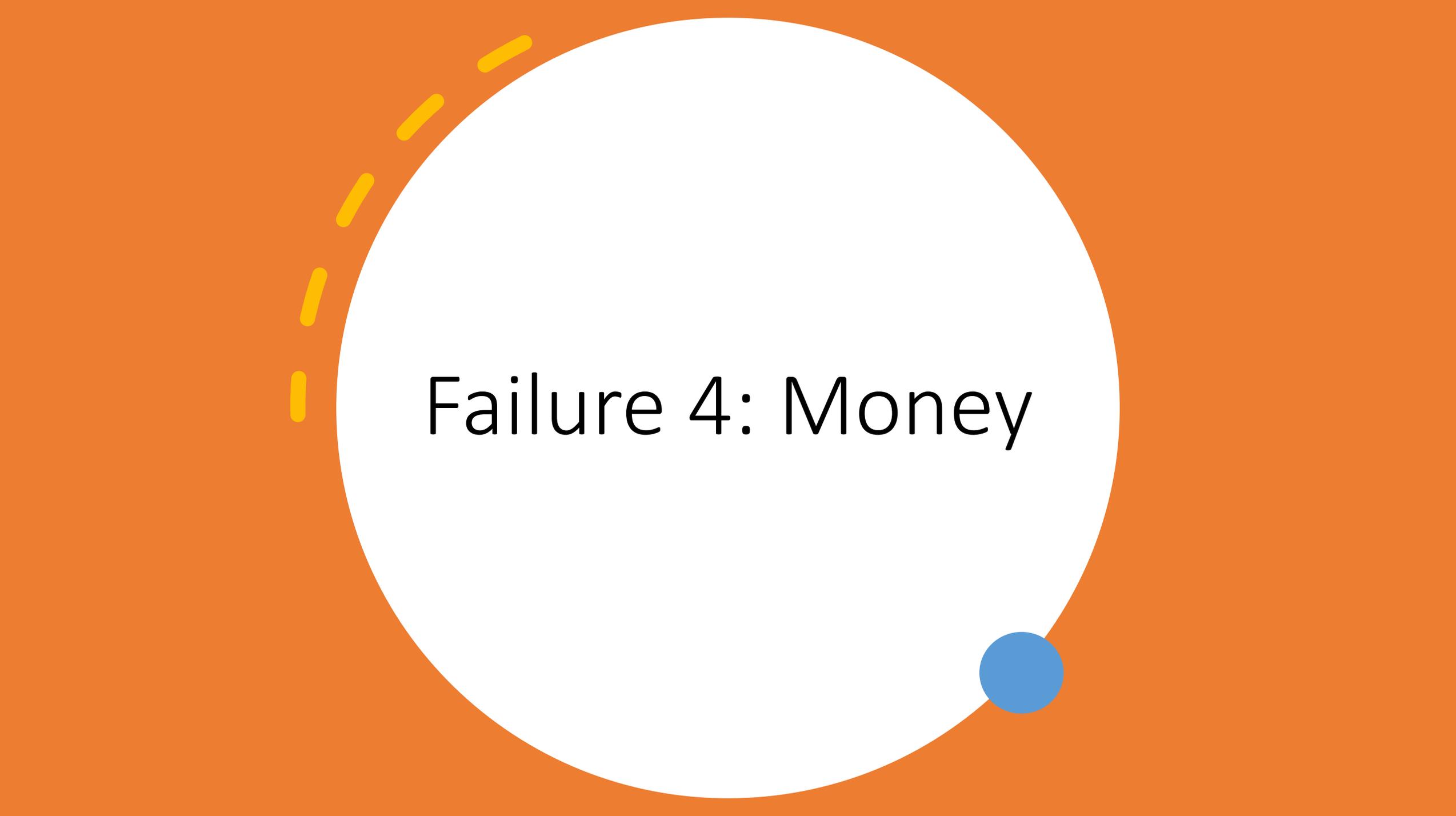
Failure 4: Money

2 Major Sources of Funding

- FCC/USAC: $5 billion in subsidies for operational expenditures to rural broadband providers

- USDA/RUS: $1.4 billion in loans and grants for capital expenditures to rural broadband providers

Both tend to favor incumbent providers
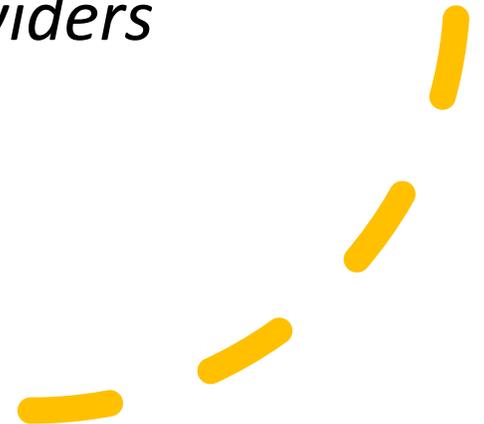
Connect America Fund (2015-2020)

- $1.2 billion/yr to the 9 largest telecommunication companies including AT&T, Windstream, Frontier, CenturyLink
- Minimal build-out requirements: 10/1
- DSL (not fiber)
- No consequences for defaults

Reverse Auction (2019-2028)

- $148 million/year shared between 103 companies
- Cooperatives, satellite providers, new entrants
- One of the largest winners was Viasat (satellite provider) which only committed to "baseline" speeds of 25/3

Rural Digital Opportunity Fund (2021-2030)

- $20.4 billion over 10 years
- Still relying on bad maps
- SpaceX/Starlink permitted to compete for funding
- Concern that it will replicate the previous failures of broadband policy

A rural broadband agenda for a new administration

Communities doing it for themselves

- Communities across the country are connecting themselves despite policy and market failures

- Telephone and electric co-operatives are the unsung heroes of rural broadband

- Importance of public-private partnerships
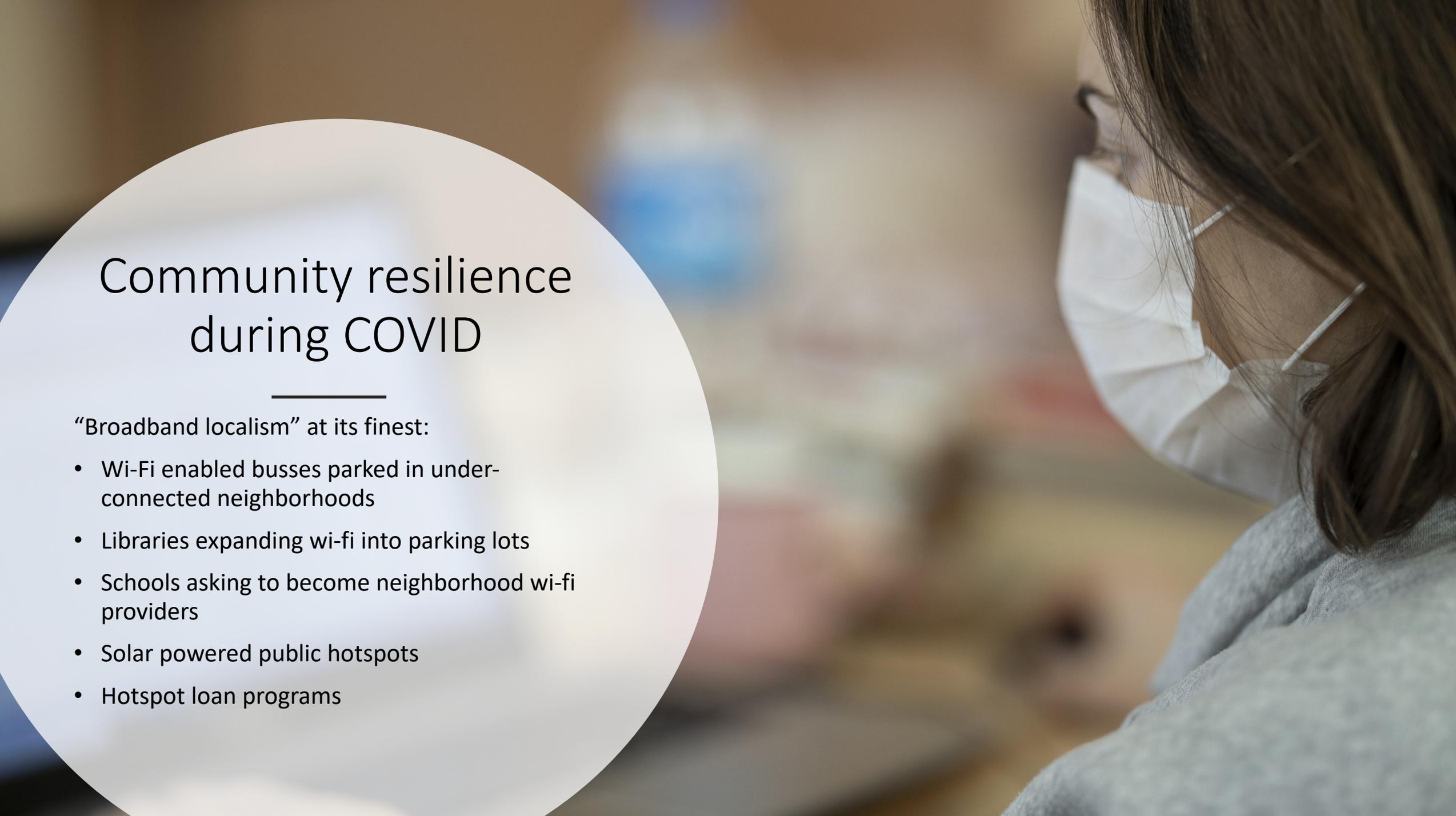
Community resilience during COVID

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"Broadband localism" at its finest:

- Wi-Fi enabled busses parked in under-connected neighborhoods

- Libraries expanding wi-fi into parking lots

- Schools asking to become neighborhood wi-fi providers

- Solar powered public hotspots

- Hotspot loan programs

Recommendations

- Raise the definition to 100mbps/100mbps

- Create an Office of Rural Broadband at USDA to craft and implement rural broadband policy

- Mandate coordination between USDA/FCC/NTIA

- Improve the maps and data collection methodology

- Punish companies that fail to deliver

- End favoritism of incumbent providers

- Augment Lifeline to $50/month and broaden eligibility

- Net neutrality!

We've done it before;
we can do it again!

Thank You.

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