



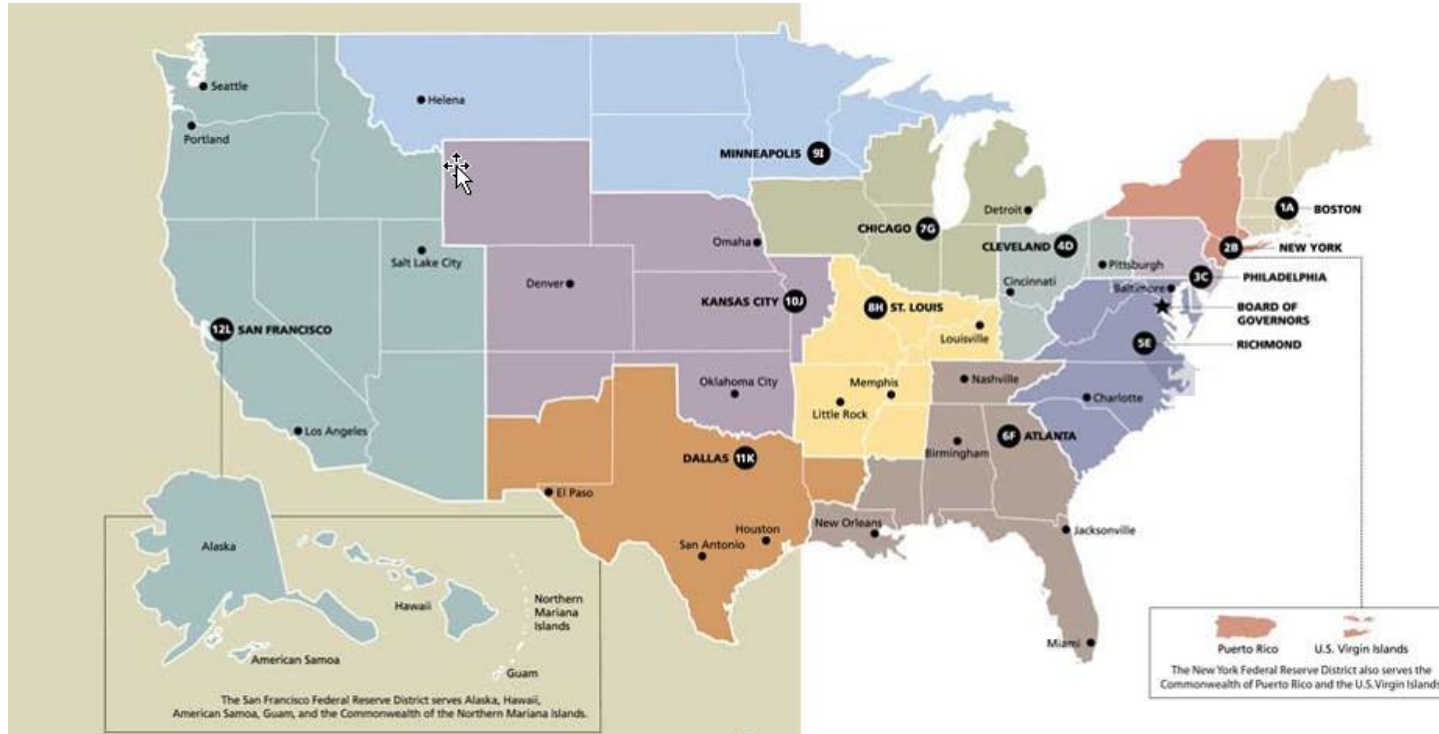
*The views in this presentation do not necessarily represent the views of the Federal Reserve Bank of Kansas City nor the Federal Reserve System*



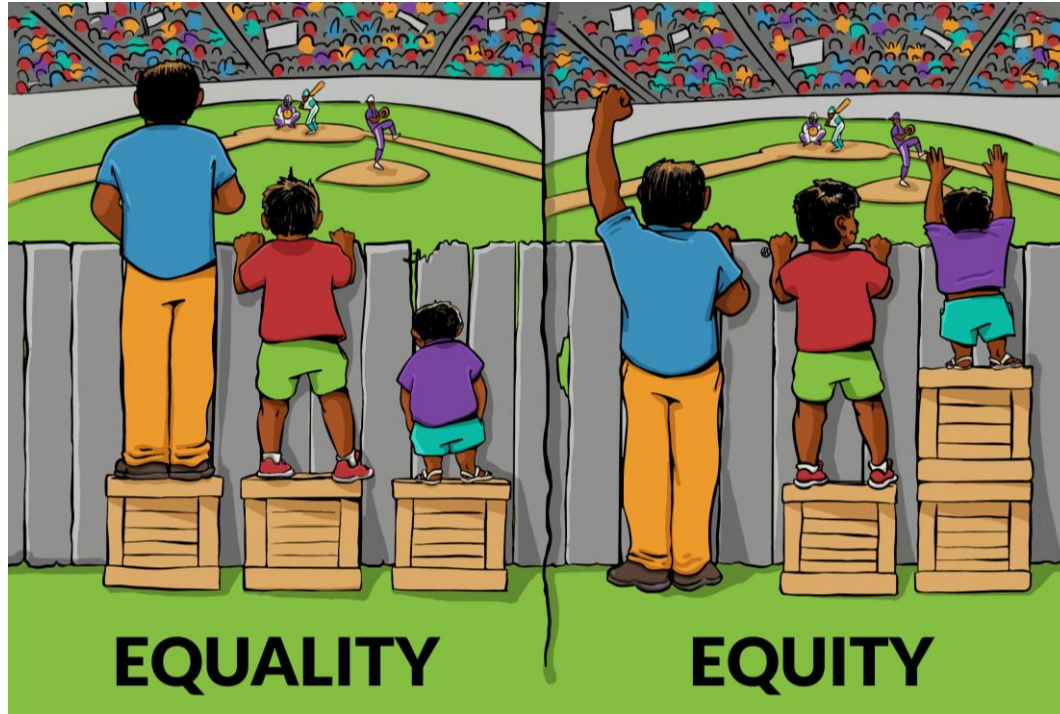
# The Federal Reserve Bank of Kansas City



# The Federal Reserve System



# Why this, why now?



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Executive Officer  
Hutchinson Community  
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Chief Community Relations  
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Executive Director and Chief  
Executive Officer  
Colorado Housing and  
Finance Authority  
Denver, Colorado



# *disconnected*

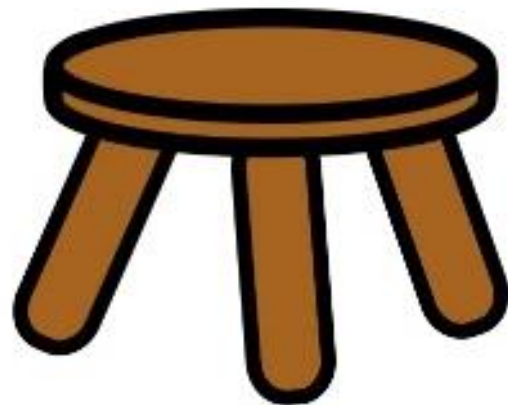
*seven lessons on fixing the digital divide*



# What is Digital Equity?

## *A Three-Legged Stool:*

- 1. Affordable broadband*
- 2. A computer*
- 3. Skills to use it*



# A few Definitions

**Broadband:** An internet connection with minimum download speeds of 25 Mbps and minimum upload speeds of three Mbps.

**Symmetrical speed:** A connection with equal download and upload speeds.

**Broadband availability:** It's there.

**Broadband adoption:** People subscribe.



# A Need for Speed



**Less than 5 Mbps**

1 device

Surf the internet

Don't upload large files

Don't get greedy

# A Need for Speed



**25/3 Mbps**

1-2 devices

Surfing the web

Email

Social networking

Moderate video streaming

# A Need for Speed



**50 Mbps**

3+ devices connected

Video streaming

Gaming

# A Need for Speed



**500-1,000 recommended for:**  
Bring all-y'all's friends

# Speeds Vary by Technology

Technology	DSL <sup>4</sup>	Fixed Wireless	Cable <sup>5</sup>	Fiber-optic
Median Down (Mbps)	15.000	15.000	400.000	940.000
Urban	18.000	15.000	400.000	940.000
Rural	10.000	12.000	300.000	1,000.000
Median Up (Mbps)	1.000	3.000	20.000	880.000
Urban	0.768	4.000	30.000	880.000
Rural	1.000	3.000	20.000	150.000

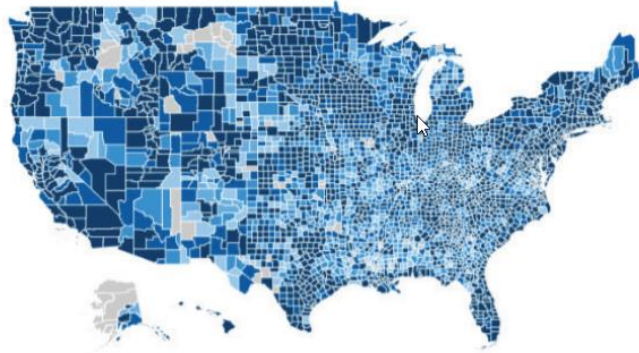
# Who has Broadband + Computers?

## A big digital divide for US Students

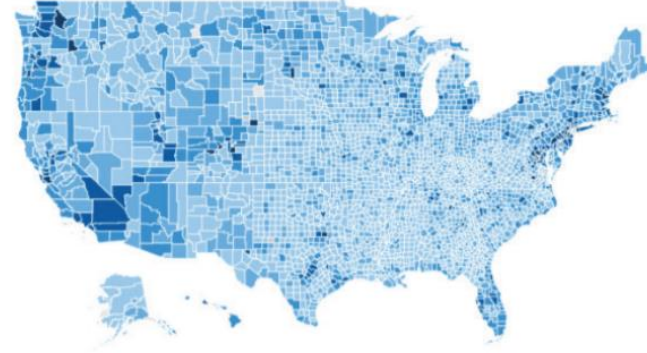


# Who has Broadband?

FCC indicates broadband is not available to 24.7M people



Microsoft data indicates 162.8M people do not use the internet at broadband speeds



\* FCC fixed broadband has or "could" provide greater than or equal to 25Mbps / 3Mbps

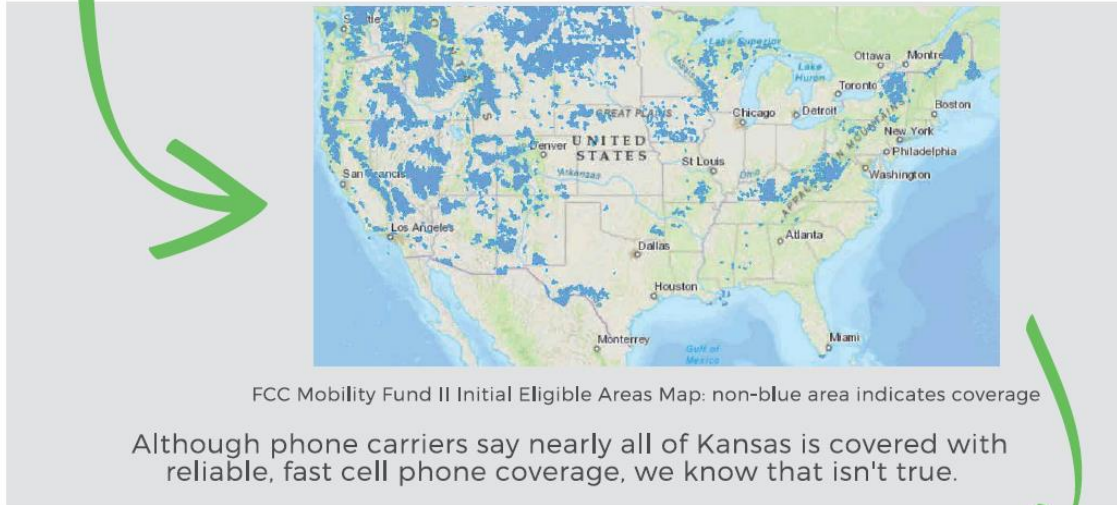


Broadband speed greater than or equal to 25Mbps



# Why Maps Matter

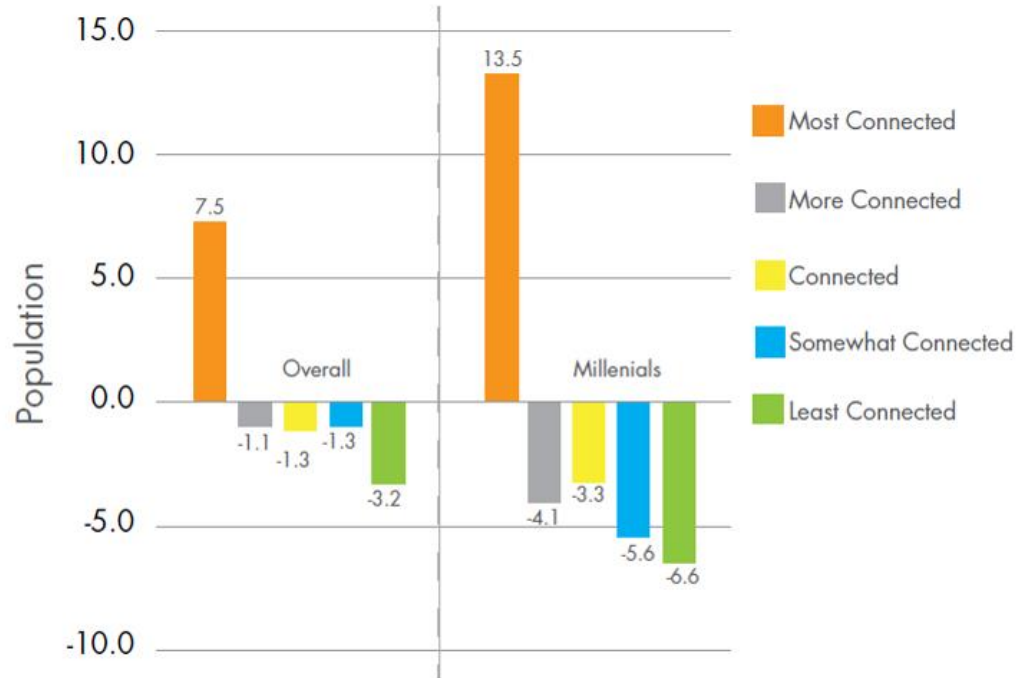
## #CONNECTINGKANSAS



HELP US GET YOU THE COVERAGE **YOU** DESERVE



# Connected Communities Grow



*The Daily Yonder*



# Kansas Updates

- Office of Broadband Development
- \$50M Connectivity Emergency Response Grants

# What is Digital Equity?

## *A Three-Legged Stool:*

- 1. Affordable broadband*
- 2. A computer*
- 3. Skills to use it*



# Affordable Devices



# Affordable Devices



# Affordable Devices



# Affordable Devices



# Durango, Colorado





# Digital Skills

As Technology Transforms the Workplace,  
**Digital Skills** are Critical  
to Future Proof **Middle-Skill Careers**



of labor demand is composed of  
**MIDDLE-SKILL** jobs

**82%**

of middle-skill jobs require digital skills,  
an increase of **4%** since 2015

**78%**

of digital middle-skill jobs call for  
productivity software skills like word  
processing and spreadsheets

# Digital Skills



# COVID and the Digital Divide

APRIL 30, 2020



## 53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak

*Americans with lower incomes are particularly likely to have concerns related to the digital divide and the digital “homework gap”*

BY EMILY A. VOGELS, ANDREW PERRIN, LEE RAINIE AND MONICA ANDERSON



# COVID and the Digital Divide

Economy

## The latest crisis: Low-income students are dropping out of college this fall in alarming numbers

Many low-income students say they don't have good enough WiFi at home to take online courses.



Paige McConnell is photographed in the Roane State Community College parking lot. McConnell dropped out of school this fall because she does not have good access to WiFi to take virtual classes. (Stacy Kranitz for The Washington Post)

# COVID and the Digital Divide



# COVID and the Digital Divide



# Stop-gap Measures

