ISSUE BRIEF: Q1 2021

OUR COVID-19 BROADBAND ECONOMY

WHAT'S WORKING, AND WHY; WHAT'S NOT, AND HOW TO FIX IT

BUSINESSFORWARD

INTRODUCTION

As Americans self-quarantined, they started to depend more on broadband for work, school, and distraction. Last year, traffic grew abruptly by up to 40 percent[1] – and videoconferening traffic grew three-fold[2]. America's broadband networks withstood the surge, unlike networks in Europe.

But as our reliance on broadband grows, the cost of our "digital divide" grows with it. Students, workers, shops, and businesses without broadband access cannot compete. And too many Americans lack broadband.

Business Forward has organized hundreds of briefings across the country on technology and innovation, collecting questions and recommendations from local business leaders on a range of tech issues.

This issue brief answers three critical questions about broadband access in the context of COVID-19:

1. Are broadband providers investing enough?
2. Should Washington regulate them more?
3. What can we do to help close the "homework gap" and rural digital divide?

EXECUTIVE SUMMARY

1 ARE BROADBAND PROVIDERS INVESTING ENOUGH?

SINCE 1996, BROADBAND COMPANIES HAVE INVESTED $1.7 TRILLION[3]

Last year, they invested more than $80 billion alone. That's more than the federal government invests each year on our highways, mass transit, and railroads.

BROADBAND NETWORKS HAVE SUPPORTED INCREASED IP TRAFFIC

U.S. internet traffic has increased by 74%/year on average from 2009-2017[4] and it spiked another

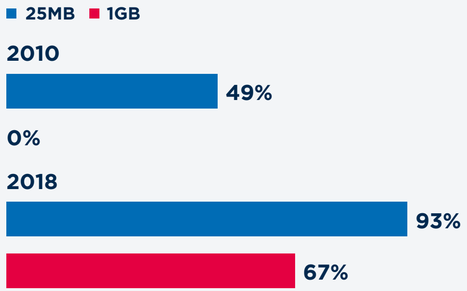
20-40%

in March 2020 as Americans began to quarantine.[5] America's broadband networks handled the surge.

DOWNLOAD SPEED AND CAPACITY AVAILABLE TO HOUSEHOLDS HAVE INCREASED

In 2010, only 49% of households could access download speeds of up to 25 mbps (considered high speed). By 2018, that number grew to 93%.[6]

U.S. HOUSEHOLDS WITH ACCESS TO HIGH SPEED INTERNET



BUT SERIOUS GAPS REMAIN

Families in the lowest quartile for median household income are 6% less likely to have high-speed internet than those in the highest quartile.[7] Americans living in rural America are

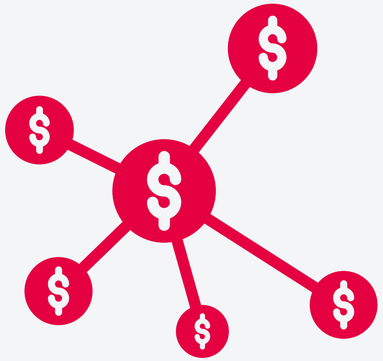
25% less likely

to have broadband than Americans living in cities and suburbs.[8]

2 SHOULD WASHINGTON REGULATE THEM MORE?

BROADBAND PROVIDERS ALREADY INVEST $80 BILLION PER YEAR

Broadband providers' new apps and services are driving consumer demand for faster, higher-capacity networks. They also understand that companies that fail to invest in their networks will fall behind, quickly and irreparably.



INVESTMENT IS ALSO ENCOURAGED BY FEDERAL BROADBAND POLICY, WHICH – FOR MOST OF THE PAST 25 YEARS – HAS ADOPTED A "LIGHT TOUCH" APPROACH

By comparison, the EU instituted a "utility" approach to broadband, regulating prices and requiring providers to share their infrastructure with competitors. The result? Broadband providers in Europe invest 48% less per capita than providers in the U.S.[9] U.S. households are more likely to have access to high-speed internet than European households (92 vs. 83%). This is also true for rural U.S. households compared to European rural households (68 vs. 52%).[10, 11]

A COMPARISON TO PUBLIC UTILITIES IN THE U.S. ALSO HELPS

1. TRANSPORTATION INFRASTRUCTURE
2. ENERGY INFRASTRUCTURE
3. WATER INFRASTRUCTURE

These sectors are all dominated by either public sector funding or utility-regulated firms, and they face a

$2 TRILLION

funding shortfall over the next 10 years. The American Society of Civil Engineers grades America's infrastructure a C-.[12]

THE GOVERNMENT HASN'T MANAGED BROADBAND INVESTMENT WELL

Finally, consider what happened when the USG tried to manage broadband investment itself. Over 19 years, Congress appropriated $5 billion to the Rural Utilities Services (RUS) to provide broadband service to families in rural areas. Six different audits found waste, misuse, and mismanagement. A 2005 audit found 39% of sampled grants were misused, mismanaged, or wasted.[13] A 2009 audit found 77% of communities RUS funded already had broadband – and just 4% of funds went to communities that were totally unserved. After a 2014 audit, the auditor complained:

"WE ARE LEFT WITH A PROGRAM THAT SPENT $3.5 BILLION, AND WE REALLY DON'T KNOW WHAT BECAME OF IT."[14]

A 2017 audit found RUS still had no "specific program-level goals or performance measures for its individual programs… RUS will have difficulty determining how well the programs are performing."[15]

3 WHAT CAN WE DO TO HELP CLOSE THE "HOMEWORK GAP" AND RURAL DIGITAL DIVIDE?

FOR STUDENTS AND THEIR FAMILIES, ADOPT A THREE-PART APPROACH AND LEARN FROM BEST PRACTICES

Combine steeply discounted broadband service with subsidized laptops and training in how to connect and use them.

Comcast's *Internet Essentials*, which has connected 8 million low-income Americans since 2011, relies heavily on local partners, like Boys and Girls Clubs of America and local Urban League chapters. Training and local outreach are critical.

FOR AMERICANS IN RURAL AREAS, REFORM FEDERAL BROADBAND PROGRAMS TO CUT RED TAPE AND LET THE EXPERTS ONTO THE FIELD

Federal broadband programs have been undermined by outdated eligibility restrictions that box out many capable broadband providers, limiting competition and slowing down deployment. Fortunately, a bipartisan consensus is emerging around the need to scrap these dial-up era rules.

From pole attachment fees to railroad rights of way, broadband providers face a thicket of local hurdles in rural areas that can add costs and delays. Federal broadband initiatives should streamline this process.

FOR ALL AMERICANS IN NEED OF HELP ACCESSING BROADBAND, FOCUS ON THE UNSERVED AND ADOPT A TECH-NEUTRAL APPROACH

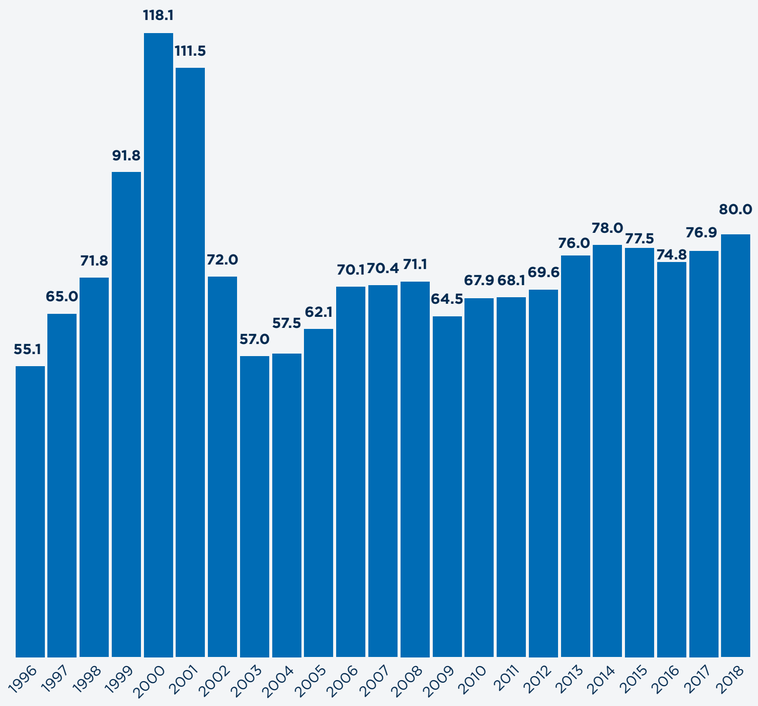
Too often, federal dollars intended to connect rural communities were diverted to subsidize businesses in already-served areas. We need better safeguards to prevent these abuses.

Wireless hotspots are the best solution in some places, while wired solutions are best in others. Make sure schools/families have the flexibility to pick the solution that best fits their needs.

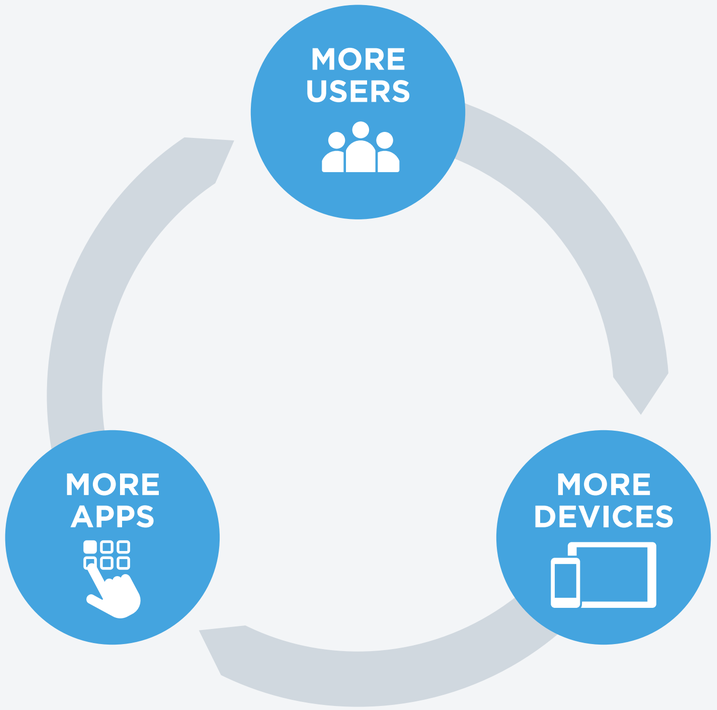
ARE BROADBAND COMPANIES INVESTING ENOUGH?

$1.7 TRILLION IN PRIVATE SECTOR INVESTMENT HAS DRIVEN INNOVATION, CREATED NEW DEMAND, AND FED COMPETITION...

U.S. BROADBAND PROVIDER CAPITAL EXPENDITURES, 1996-2018 (IN BILLIONS OF DOLLARS)[16]



TECHNOLOGY IS DRIVING NEW USES, AND NEW USES ARE DRIVING EXTRAORDINARY CONSUMER DEMAND...

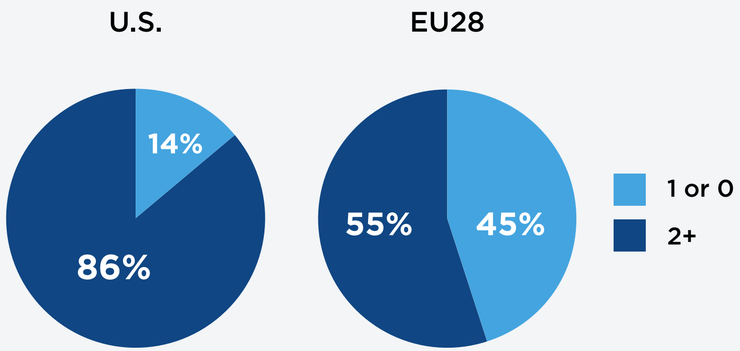


...AND CONSUMER DEMAND IS ATTRACTING MORE COMPETITION

Broadband providers compete both within and across modes (e.g., cable, fiber, fixed wireless, mobile wireless, satellite, etc.). They are also developing new modes, including low-orbit satellites and 5G fixed wireless solutions.

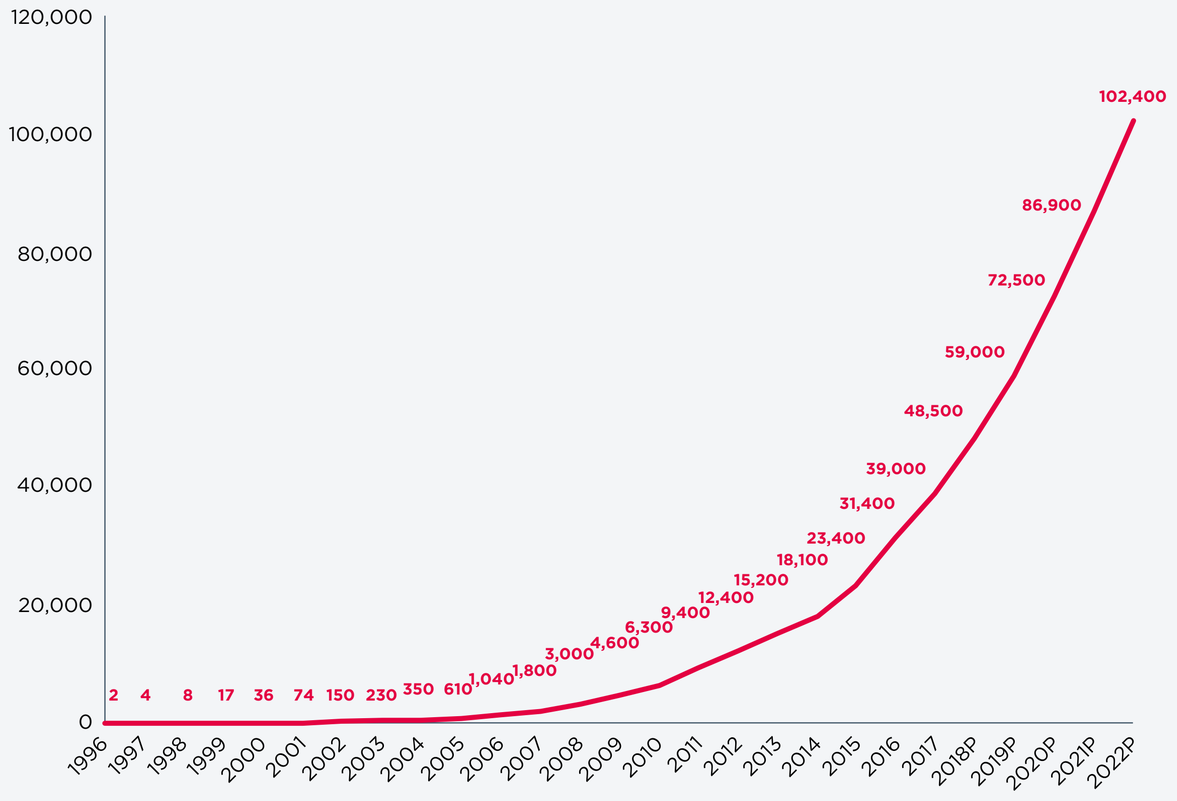
U.S. VS. EU28 WIRED NETWORK CHOICES AT ANY SPEED[17]

(% OF HOUSING UNITS, MID-YEAR 2018)



DEMAND FOR BROADBAND SPIKED WORLDWIDE WITH COVID-19, WITH SOLID RESULTS IN THE U.S. AND MIXED RESULTS FOR EUROPE

ESTIMATED U.S. IP TRAFFIC, 1996-2022 (PETABYTES PER MONTH)[18]



U.S. QUARANTINES CAUSED AN ABRUPT 20-40% SPIKE IN U.S. TRAFFIC ON TOP OF THIS GROWTH[19], WITH NO NOTICEABLE DEGRADATION IN SERVICE

INCREASE IN TRAFFIC[20]

300% INCREASE IN VIDEO-CONFERENCING

400% INCREASE IN ONLINE GAMING

WIRED

"US providers seem to be holding up to the surge in usage"

RESULTS IN EUROPE ARE LESS REASSURING

CNBC

"YouTube and Netflix are cutting streaming quality in Europe due to coronavirus lockdowns"

THE TIMES OF INDIA

"Facebook has done the same in Europe, Latin America, and India"

Neowin

"Netflix had to degrade streaming quality in Europe, Latin America, Australia"

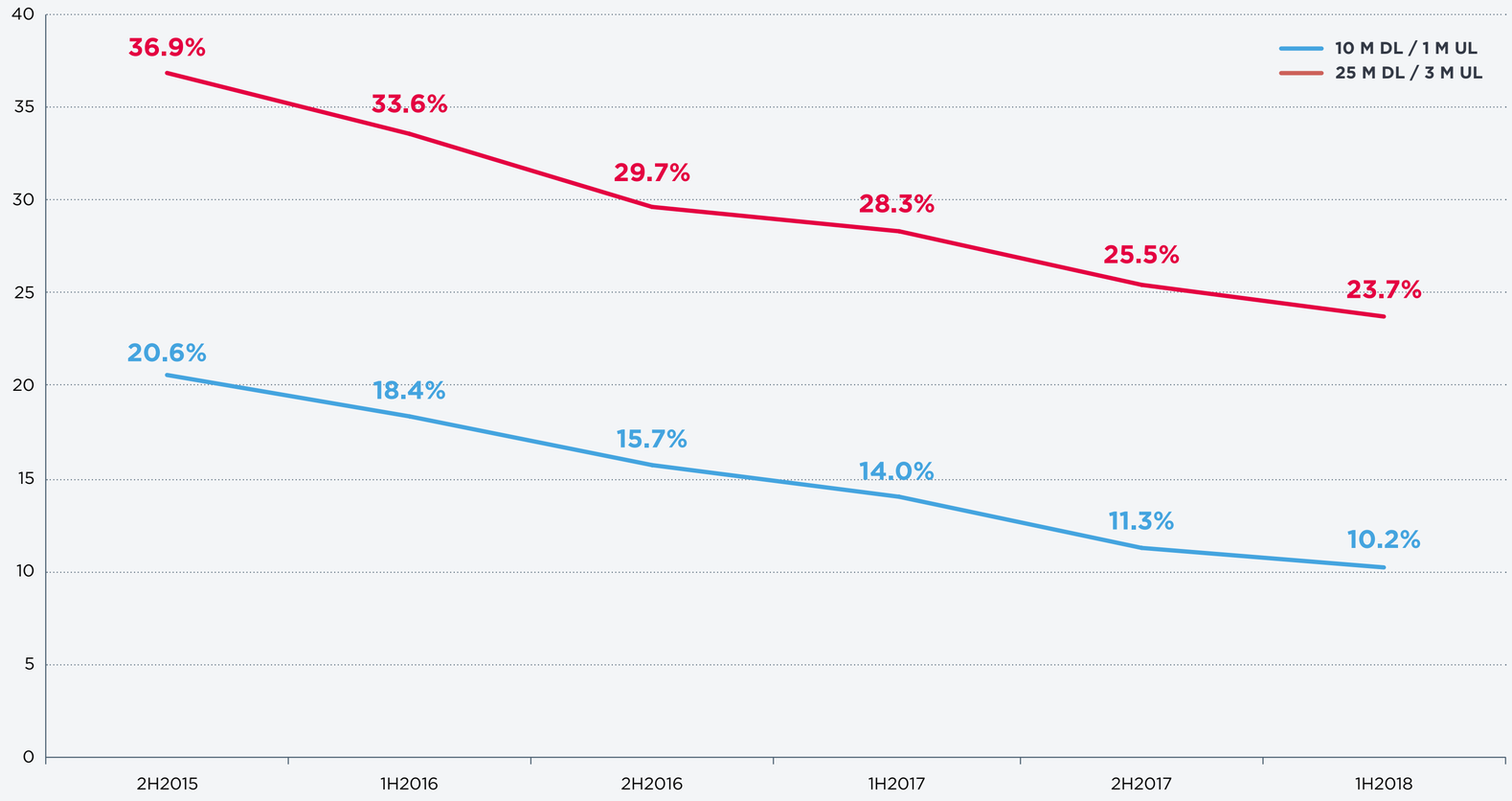
INVESTMENT HAS LED TO BETTER COVERAGE

1GB BROADBAND COVERAGE[21]

2016
6%

2019
85%

FIXED BROADBAND RURAL-URBAN GAP (DIFFERENCE IN % AVAILABILITY BETWEEN URBAN AND RURAL HOUSEHOLDS)[22]



COVERAGE HELPS SMALL BUSINESSES, SMALL TOWNS, AND RURAL AREAS COMPETE

DELOITTE STUDY REPORTS SMBs MAKING ADVANCED USE OF DIGITAL TOOLS ARE[23]

3X more likely to experience customer growth, which tends to be twice as high

5X more likely to reach new, international customers

2X more profitable

2X more likely to create jobs

3X more likely to develop new products and services

BROADBAND HELPS LEVEL THE PLAYING FIELD BETWEEN SMALL TOWNS AND BIG CITIES

Gaining access to 4 mbps broadband

=

$2,100

PER YEAR BOOST TO HOUSEHOLD INCOME[24]

JAN 24, 2020
ANDREW MEOLA

SMART FARMING IN 2020: HOW IOT SENSORS ARE CREATING A MORE EFFICIENT PRECISION AGRICULTURE INDUSTRY

BUSINESS INSIDER

JULY 20, 2020
ANDIS ROBEZNIEKS

TELEHEALTH KEEPS CARE CONTINUITY DURING COVID-19—THAT MUST CONTINUE

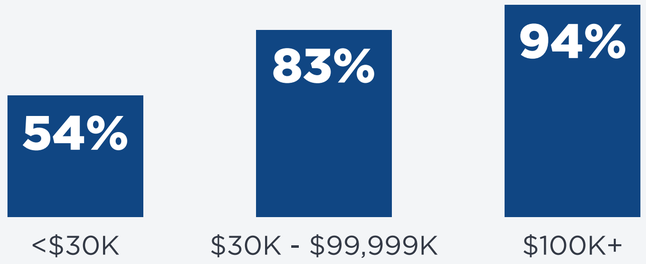
AMA

THE GAP IS SHRINKING, BUT THE DIGITAL DIVIDE REMAINS

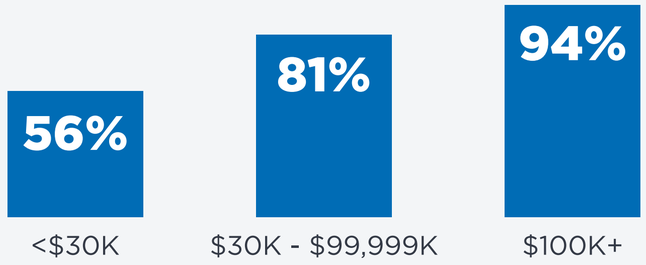
BY INCOME[25]

% OF U.S. ADULTS WHO SAY THEY HAVE THE FOLLOWING...

DESKTOP OR LAPTOP COMPUTER AT HOME

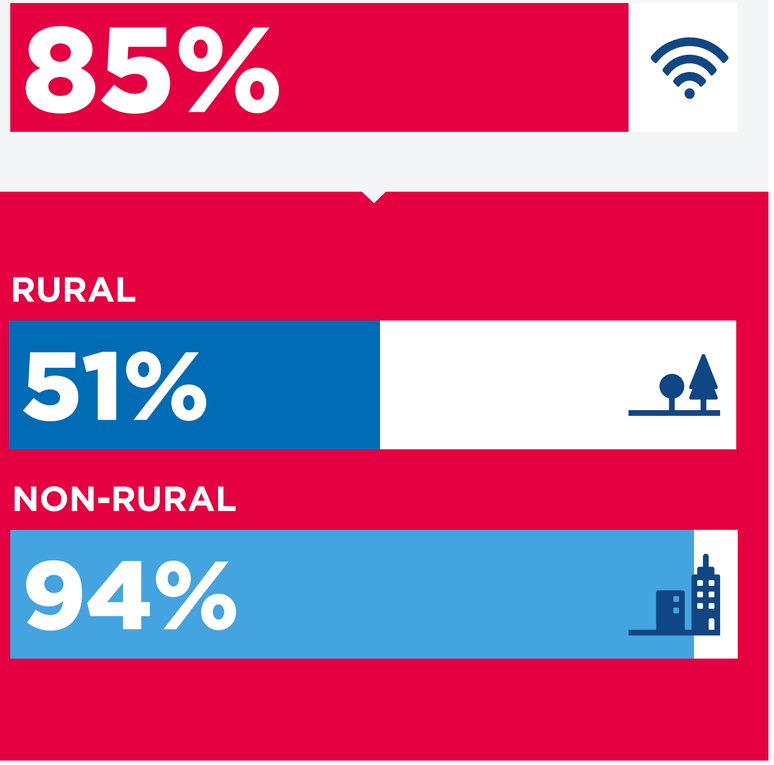


BROADBAND AT HOME



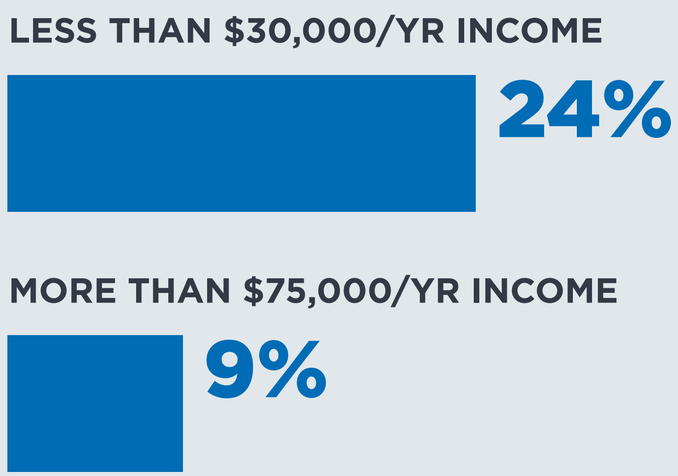
BY GEOGRAPHY[26]

% OF HOUSING UNITS WITH ACCESS TO 1GBPS+ INTERNET SPEED (MID-YEAR 2019)



THE HOMEWORK GAP[27]

% OF U.S. TEENS, BY ANNUAL FAMILY INCOME, WHO SAY THEY **OFTEN OR SOMETIMES ARE UNABLE TO COMPLETE A HOMEWORK ASSIGNMENT BECAUSE OF LACK OF A RELIABLE COMPUTER OR INTERNET CONNECTION**



SHOULD WASHINGTON REGULATE BROADBAND MORE?

FOR SOME DEMOCRATS, COVID-19 IS CAUSE TO RETHINK BROADBAND REGULATIONS

It's understandable that policymakers would consider every option available to reduce the damage COVID-19 is doing to the U.S. We should be looking for ways to reduce the digital divide and assure our broadband networks, which are handling quarantine-driven demand better than networks in other countries, continue to perform.

But is having the federal government set broadband prices, direct capital investment, and require companies to share the networks they build with their competitors the way to do this? Will reclassifying broadband from an information service (Title I of Telecom Act) to a telecommunications service (Title II) increase and improve coverage? Following a brief history of broadband regulation in the U.S., we offer three case studies that suggest utility-style regulation will not accomplish what its proponents intend.

THE VERGE

MARCH 26, 2020
GIGI SOHN

THE FCC SHOULD LET ITSELF DO MORE TO KEEP AMERICANS CONNECTED THROUGH THE PANDEMIC

A BRIEF HISTORY OF BROADBAND REGULATION

1996

TELECOM ACT ESTABLISHES "LIGHT TOUCH" APPROACH TO BROADBAND

Republican-controlled Congress and Democratic President produce landmark legislation updating telecom laws.

They adopt a "light-touch" on broadband, classifying it as "information services" (Title I of the Act) rather than a "telecommunications service" (Title II of the Act), which would trigger heavier oversight.

Broadband companies invest $513 billion in their networks in the first six years.[28]

2003 – 2010

THREE FCC CHAIRS TRY TO ESTABLISH "NET NEUTRALITY" RIGHTS

FCC Chairmen Powell, Martin, and Genachowski each support light-touch framework for broadband, but seek to establish "net neutrality" rules that prevent broadband providers from favoring data from some sites and applications over others.

Absent legislation from Congress, they have trouble implementing them.

2009 – 2015

OBAMA "PLAN A"

Obama's first FCC Chair (Genachowski) and Congressional Democrats propose three "bright-line" rules for net neutrality within the light-touch framework: no blocking, no throttling, no paid prioritization.

Republicans in Congress, opposing net neutrality regulations on principle, block legislation.

Obama FCC implements rules without Congressional authority (Obama Plan A).

In 2015, federal court tosses Plan A because FCC lacked Congressional authorization.

2015 – 2017

OBAMA "PLAN B"

Obama's second FCC Chair (Wheeler), facing continued Congressional opposition to net neutrality rules, implements a workaround: FCC will reclassify broadband as a "telecommunications service," triggering utility regulations under Title II.

But Plan B has unintended consequences: it also empowers FCC to set broadband prices and force companies to lease their networks to competitors. Obama's FCC Chair assures industry he does not intend to use these new powers.

Republicans vow to overrule Plan B when they retake White House.

A BRIEF HISTORY OF BROADBAND REGULATION

2017

TRUMP FCC CANCELS PLAN B WITHOUT A PLAN TO REPLACE IT

Republicans retake White House. As promised, Trump FCC overturns Plan B over concerns about Title II.

2019

BIPARTISAN MAJORITY SUPPORTS OBAMA PLAN A, BUT SOME DEMOCRATS INSIST ON PLAN B

Democrats take control of House. Instead of pushing for legislation based on Obama's Plan A approach, which would have bipartisan support in the Senate, House Democrats instead pushed a bill to codify his Plan B, turning Title II from a workaround to an end in itself. House Democrats' Title II bill – which the Los Angeles Times criticized as "political virtue signaling at its worst"[29] – is declared "dead on arrival" in the Senate, leaving consumers without the protection of a net neutrality law.

2020

U.S. BROADBAND HOLDS UP DURING QUARANTINE

U.S. Broadband holds up during quarantine, while other networks buckle – but some Democrats see COVID-19 as cause to renew push for Title II.

CASE STUDY 1: U.S. VS. EUROPE

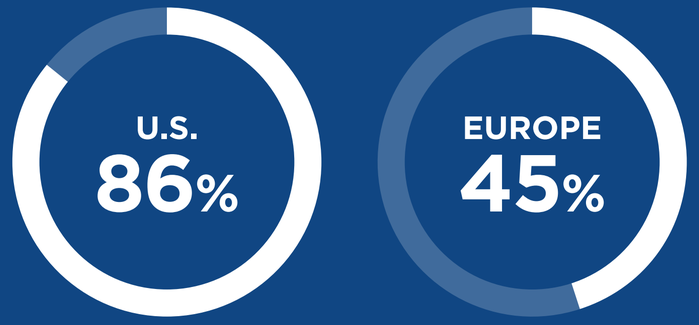
While Congress adopted a light-touch approach to broadband, Europe has long followed a utility approach, regulating broadband prices and forcing broadband companies to share their network infrastructure with competitors. Europe's approach led to less investment per capita, less national coverage, and dramatically less coverage for rural areas.

U.S. BROADBAND COMPANIES INVEST NEARLY 2X MORE, PER CAPITA

AVERAGE ANNUAL TELECOM CAPITAL INVESTMENT PER CAPITA (1997-2015, U.S. DOLLARS)[30]

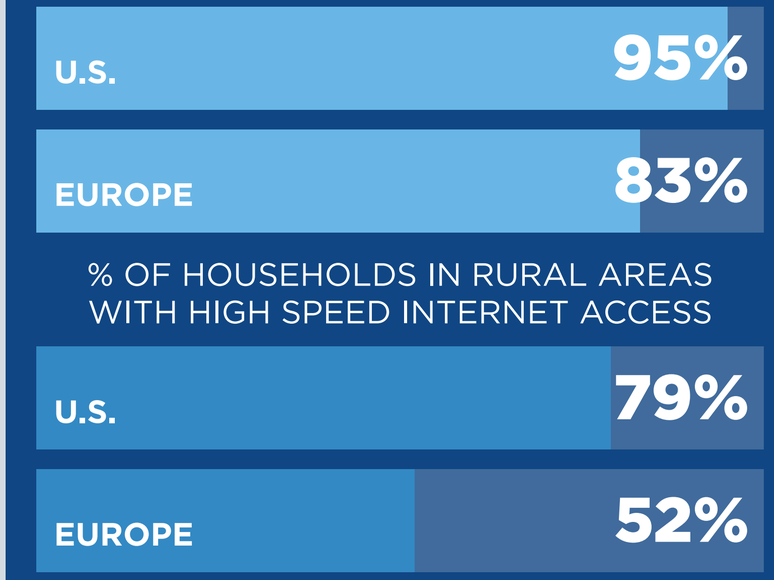
U.S. CONSUMERS ENJOY MORE CHOICES THAN EUROPEANS

% OF HOUSING UNITS WITH 2 OR MORE WIRED NETWORK CHOICES[31]



AND MORE AMERICANS ARE COVERED, PARTICULARLY IN RURAL AREAS

% OF HOUSEHOLDS WITH HIGH SPEED INTERNET ACCESS[32,33]

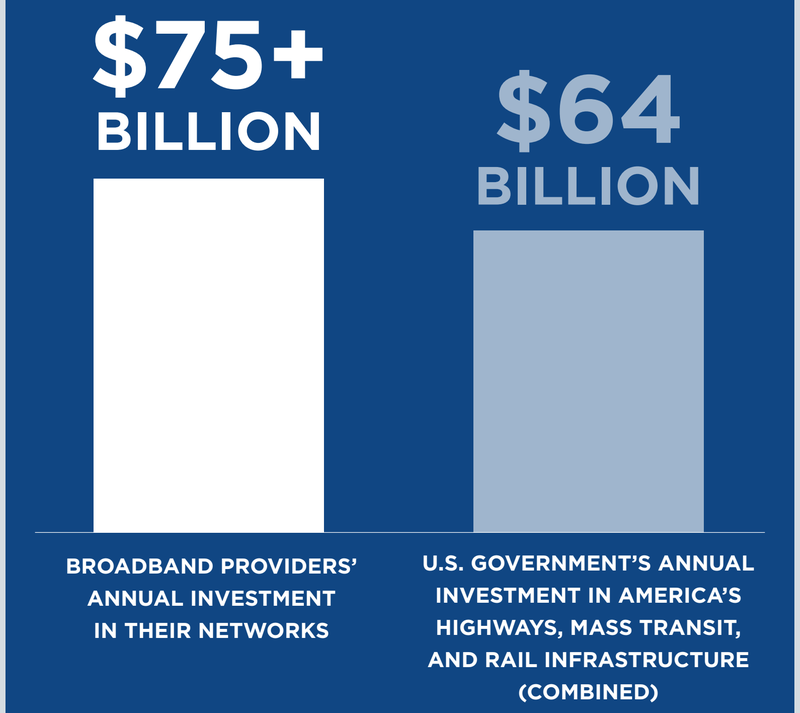


* HIGH SPEED DEFINED AS HAVING NEXT GENERATION ACCESS OR 30 MBPS FOR EUROPE AND 25 MBPS FOR U.S. DUE TO DATA AVAILABILITY

CASE STUDY 2: BROADBAND INFRASTRUCTURE VS. PUBLIC INFRASTRUCTURE

If we are going to consider regulating broadband as a utility, we should look at how America's public utilities and infrastructure are functioning.

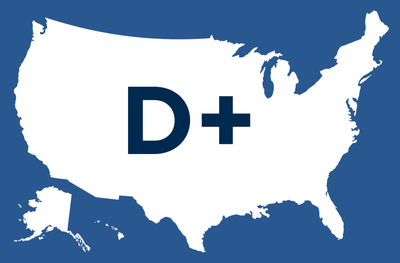
A MEANINGFUL COMPARISON[34]



STATE OF U.S. PUBLIC INFRASTRUCTURE

America's transportation, energy, and water infrastructure – sectors all dominated by either public sector funding or utility-regulated firms – face a $2 trillion funding shortfall over the next 10 years.[35]

TRADITIONAL INFRASTRUCTURE SCORE:[36]

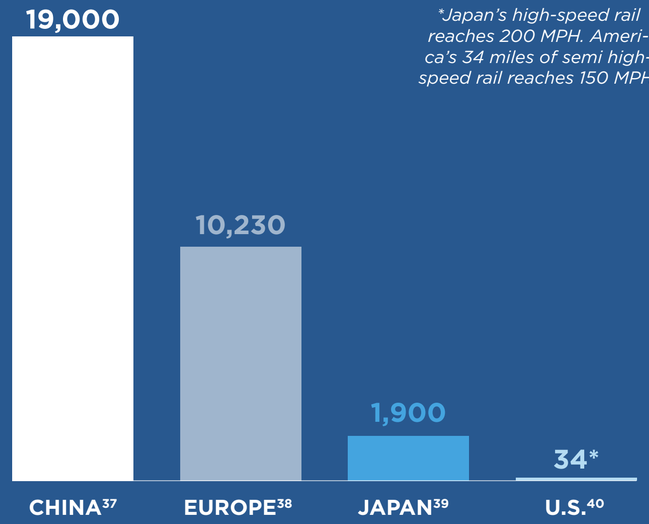


A - EXCEPTIONAL
B - GOOD
C - MEDIOCRE
D - POOR
F - FAILING

AVIATION:	D+
BRIDGES:	C
DAMS:	D
DRINKING WATER:	C-
ENERGY:	C-
HAZARDOUS WASTE:	D+
INLAND WATERWAYS:	D+
LEVEES:	D
PORTS:	B-
RAIL:	B
PARKS AND REC:	D+
ROADS:	D
SCHOOLS:	D+
SOLID WASTE:	C+
TRANSIT:	D-
WASTEWATER:	D+

MILES OF HIGH-SPEED RAIL

**Japan's high-speed rail reaches 200 MPH. America's 34 miles of semi high-speed rail reaches 150 MPH.*



CASE STUDY 3: THE RURAL UTILITIES SERVICES AGENCY

If we are going to allow Congress to decide where $80 billion in annual private sector broadband investment goes and what broadband costs, we should look at what happened when Congress gave the Agriculture Department approximately $5 billion to install broadband in rural areas that had none.

The idea is simple: Fund broadband connectivity in (1) rural areas (2) without broadband coverage that (3) were not populated enough to sustain a for-profit company. The Department's Rural Utilities Services agency (RUS) began distributing grants in 2001. At least six investigations (in 2005, 2009, 2012, two in 2014, and 2017) found waste, misuse, and mismanagement. Only in the past few years have USDA broadband programs started embracing smart reforms to better prioritize funding and deliver results.

FAILED TO MANAGE GRANTS

A 2005 audit by USDA's Inspector General estimated that 39% of the grants RUS awarded from 2001 to 2005 were approved even though applications were never completed, used for unauthorized purposes, defaulted upon, or terminated before completion.[41] In fact, a 2017 GAO audit noted RUS still lacked "a centralized system to monitor loan and grant data."

REFUSED TO TRACK THEIR RESULTS

In 2014, after $2 billion in grants had been authorized, RUS officials claimed that "a lack of staff resources has prevented them from studying the reasons for failed projects." At the time, RUS had 22 employees managing RUS grants full-time, and another 25 dedicating part of their time to the program. In 2015, RUS officials claimed to have delivered broadband to "hundreds of thousands" of households, but they could not point to which households were helped. The agency explained to auditors that Congress did not explicitly require RUS to track actual results, so it didn't. They had pledged to connect 7 million Americans with the grants, so the drop to "hundreds of thousands" is also significant. A 2017 GAO audit noted RUS still had no "specific program-level goals or performance measures for its individual programs... RUS will have difficulty determining how well the programs are performing."[42]

DIRECTED FUNDS TO AFFLUENT SUBURBS THAT ALREADY HAD BROADBAND

While its mission was clear, Congress failed to explicitly require that RUS fund only unserved rural areas, so RUS paid companies to deliver broadband to suburban communities that already had it. A 2005 audit estimated that 18% of the $895 million in grants RUS awarded went to suburban neighborhoods.

When pressed, RUS defended its action by saying Congress's specifications did not prevent RUS from subsidizing service for affluent suburbs. A 2009 audit found 77% of communities RUS funded between 2005 and 2009 already had broadband – and just 4% of funds went to communities that were totally unserved.

Learning from these mistakes, the USDA's ReConnect program now requires at least 90% of funds to be spent on truly unserved areas. All federal and state broadband infrastructure programs should adopt similar reforms.

CASE STUDY 3: THE RURAL UTILITIES AGENCY (CONTINUED)

2005 USDA INSPECTOR GENERAL REPORT[43]

AUDITED
$599 MILLION

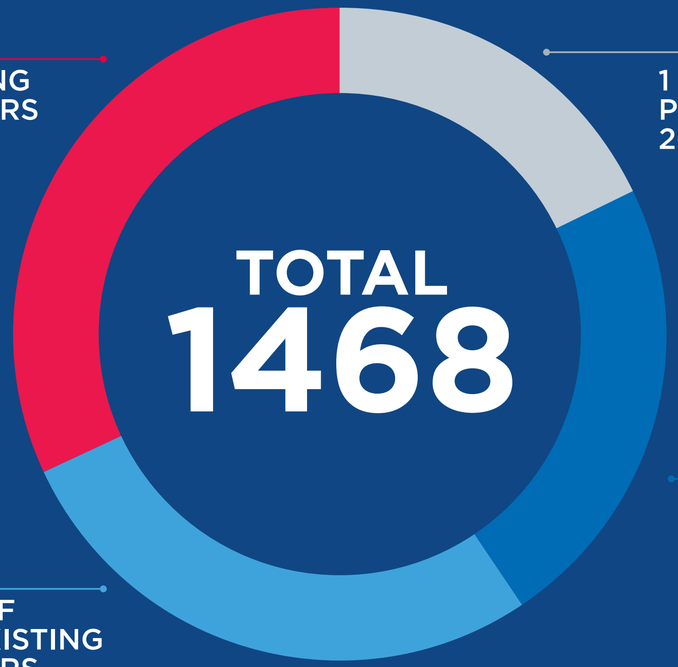
OF THE $895 RUS DISTRIBUTED FROM 2001-5

$103 MILLION OF $599 MILLION (18%) WENT TO SUBURBAN COMMUNITIES THAT ALREADY HAD BROADBAND

$237 MILLION (39%) WAS MISUSED, MISMANAGED, OR WASTED

2009 USDA INSPECTOR GENERAL REPORT[44]

OF PROVIDERS ALREADY SERVING COMMUNITIES RECEIVING RUS GRANT



2 EXISTING PROVIDERS 467

1 EXISTING PROVIDER 264

NO CURRENT PROVIDERS 334

THREE OF MORE EXISTING PROVIDERS 403

WASHINGTON POST ENDORSES OBAMA PLAN A OVER TITLE II

In briefings we've organized since Trump's FCC eliminated Obama's net neutrality protections, business leaders often recommend "going back to the Obama approach."

Obama Plan A was a bright-line test on blocking, throttling, and paid prioritization under Title I light-touch regulations. Obama Plan B – Wheeler's Title II workaround had two problems: First, it gave the FCC authority to set prices and force broadband companies to lease their networks that even Wheeler thought was unnecessary. Second, it assured Republicans would vote against net neutrality. Going back to Plan B won't get 60 votes in the Senate – and the FCC acts on its own, it guarantees years of continued litigation and uncertainty.

The Washington Post editorial board agrees:[45]

The Washington Post

OPINION | **THE POST'S VIEW**

DEMOCRATS WANT TO 'SAVE THE INTERNET.' THEY'LL NEED REPUBLICANS' HELP.

But there's a reason using Title II was not the [Obama] FCC's initial inclination: It subjected broadband companies to strictures designed for old-school telephone firms, including a mandate that they allow open access to their wiring infrastructure as well as the possibility of government-set rates...

Congress has an opportunity now to replace those rules with something more nuanced, but the bills introduced this week miss the mark. Instead, they bring back Title II. Democratic bills would make permanent limitations on rate-setting and other regulatory practices that have alarmed providers, but the classification is still toxic — and outdated.

Lawmakers would do better to focus on the three bright-line prohibitions on which most parties have come to agree. Those are bans on blocking websites and services, as well as slowing them down or speeding them up to favor a company's own content or in exchange for payment. Any rules should otherwise allow providers to manage congestion on their networks as long as they make those management practices transparent to consumers. Congress should also give the FCC meaningful enforcement authority against harmful and anti-competitive practices along with the ability to write future rules to enforce net neutrality. Lawmakers could call this whatever title number they please — as long as it's not II.

WHAT CAN WE DO TO ELIMINATE THE HOMEWORK GAP AND THE RURAL DIGITAL DIVIDE?

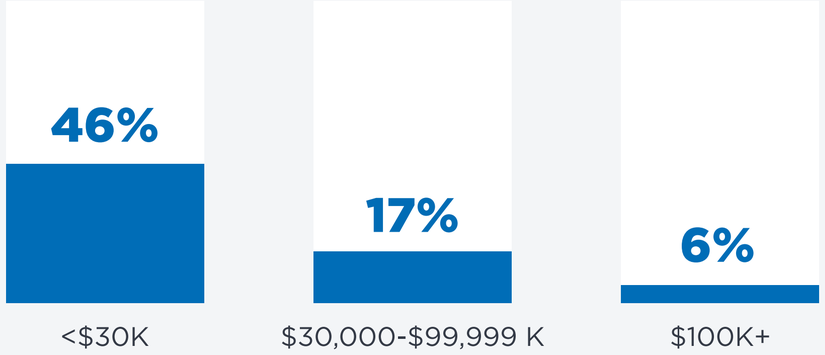
ONE IN FIVE STUDENTS AT RISK

18%

OF U.S. STUDENTS LIVE IN POVERTY[46]

FAMILIES UNABLE TO AFFORD A HOME COMPUTER

% OF U.S. ADULTS WHO SAY THEY DON'T HAVE A HOME DESKTOP OR LAPTOP, BY INCOME LEVEL[47]



BROADBAND ACCESS

% OF HOUSEHOLDS WITH CHILDREN AGES 6 TO 17 WITH HIGH-SPEED INTERNET CONNECTION AT HOME[48]

LESS THAN $30,000/YR INCOME

MORE THAN $75,000/YR INCOME

1 IN 3

BLACK AND LATINX HOUSEHOLDS WITH CHILDREN UNDER 17 LACK HIGH-SPEED INTERNET.

THE NATIONAL AVERAGE IS 1 IN 4.[49]

Chicago Tribune

MARCH 26, 2020
BY HANNAH LEONE

WITH CORONAVIRUS SHUTTING ILLINOIS SCHOOLS, CLOSING THE DIGITAL DIVIDE IS A MAJOR CHALLENGE AMID SHIFT TO E-LEARNING

With public libraries now closed, too, and the state under a stay-at-home order, those who lack devices or adequate internet access at home have few options.

Of households within the boundaries of CPS, about 14% didn't have a home computer and 24% lacked a broadband internet subscription...

Some students might have internet at home but no device to use it with; others in temporary living situations might have a phone or laptop but can't count on having a place to access the internet. More than 16,400 Chicago students experienced homelessness during the 2018-19 school year...

FOR STUDENTS IN LOW-INCOME FAMILIES, A BROADBAND, HARDWARE, AND DIGITAL LITERACY PROBLEM

THREE-PART APPROACH

Combine steeply discounted broadband service with subsidized laptops and training (for students and their parents) in how to connect and use them.

LEARN FROM BEST PRACTICES

Comcast's Internet Essentials, which has connected 8 million low-income Americans since 2011, relies heavily on local partners, like the Boys and Girls Clubs and Urban League chapters.

ADOPT A TECHNOLOGY-NEUTRAL APPROACH

Wireless hotspots are the best solution in some places, while wired solutions are best in others. Make sure schools/families have the flexibility to pick the solution that best fits their needs.

FOR AMERICANS IN RURAL AREAS, RADICALLY REFORM FEDERAL PROGRAMS AND REGULATIONS

FOCUS ON THE UNSERVED

Too often, federal dollars intended to connect rural comunities were diverted to subsidize businesses in already-served areas. We need better safeguards to prevent these abuses.

LET THE EXPERTS ONTO THE FIELD

Many federal broadband programs rely on outdated, dial-up era rules that steer funds toward telephone companies while blocking many other capable providers from participating. Every qualified provider should be encouraged to compete and help us solve the problem

CUT RED TAPE

From pole attachment fees to railroad rights of way, broadband providers face a thicket of local hurdles in rural areas that can add costs and delays. Federal broadband initiatives should streamline this process.

TO CLOSE THE HOMEWORK GAP, WE MUST CLOSE EACH CONTRIBUTING GAP SIMULTANEOUSLY

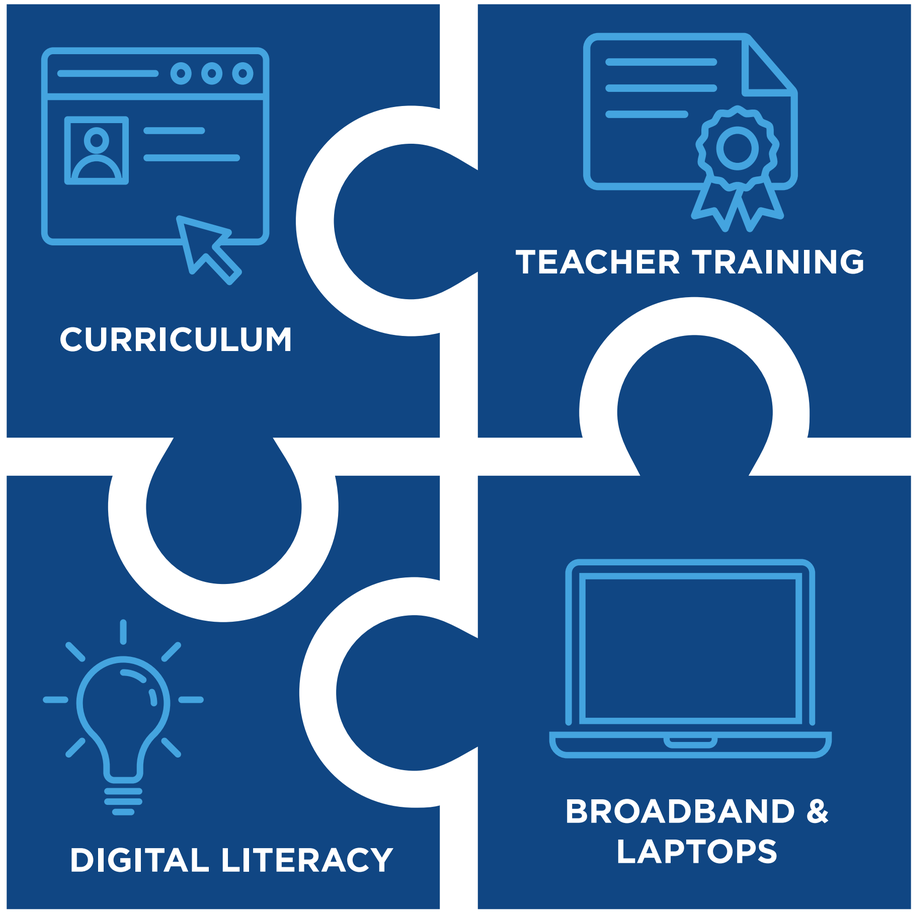
To learn from home, a student needs a laptop, broadband, digital literacy, parental assistance, a school offering online curriculum, and teachers who know how to use it.

To close the homework gap, we must address each of its underlying "gaps" simultaneously: affordable laptops and broadband, curriculum designed for distance learning (and the future of work), and digital training for students, parents, and teachers.

It's a massive undertaking that will require significant investment and coordination, but the tools we build and deliver in response to COVID-19 could level the playing field for students from low-income families, improve our workforce, and grow our economy.

Coordination between partners is hard - but essential.

We're more likely to succeed if we partner local schools and community service organizations with corporate partners, each well-positioned to provide the expertise we need now.



GOVERNMENT ACTIONS TO BRIDGE THE HOMEWORK GAP AND DIGITAL DIVIDE MAKE THE INVESTMENTS WE NEED - BUT THEY'RE JUST A START

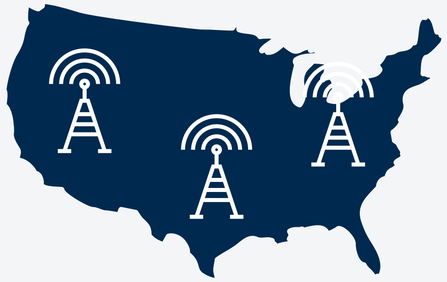
CARES ACT	**$175M**	$100M in grants to USDA Rural Development to expand rural broadband service, $50M in grants for museums and libraries to expand digital access, and $25M to use on distance learning, telemedicine, and broadband.[50]
SECOND STIMULUS (CONSOLIDATED APPROPRIATIONS ACT, 2021)	**$7B**	For expanding broadband access. Also contained a $3.2B "Emergency Broadband Benefit Program" that will subsidize broadband and devices for low-income Americans.[51]
AMERICAN RESCUE PLAN	**$175M**	For states to cover additional cash assistance to families qualifying for TANF; money can be used to purchase internet.[52]
	$20B	To Tribes for resources to fight COVID-19; money can be used to expand internet access.[53]
	$130B	To help schools reopen safely; includes closing the digital divide.[54]

FCC ACTION

In December 2020, the FCC auctioned the funds to build out rural broadband across more than five million homes and businesses in 49 states. Providers have 10 years to build the networks, which will deliver "gigabit" speeds.[55]

$9.2 BILLION PHASE 1 FUNDING FOR CONSTRUCTION OF RURAL BROADBAND NETWORKS

$11.2 BILLION PHASE 2 FUNDING FOR CONSTRUCTION OF RURAL BROADBAND NETWORKS[56]



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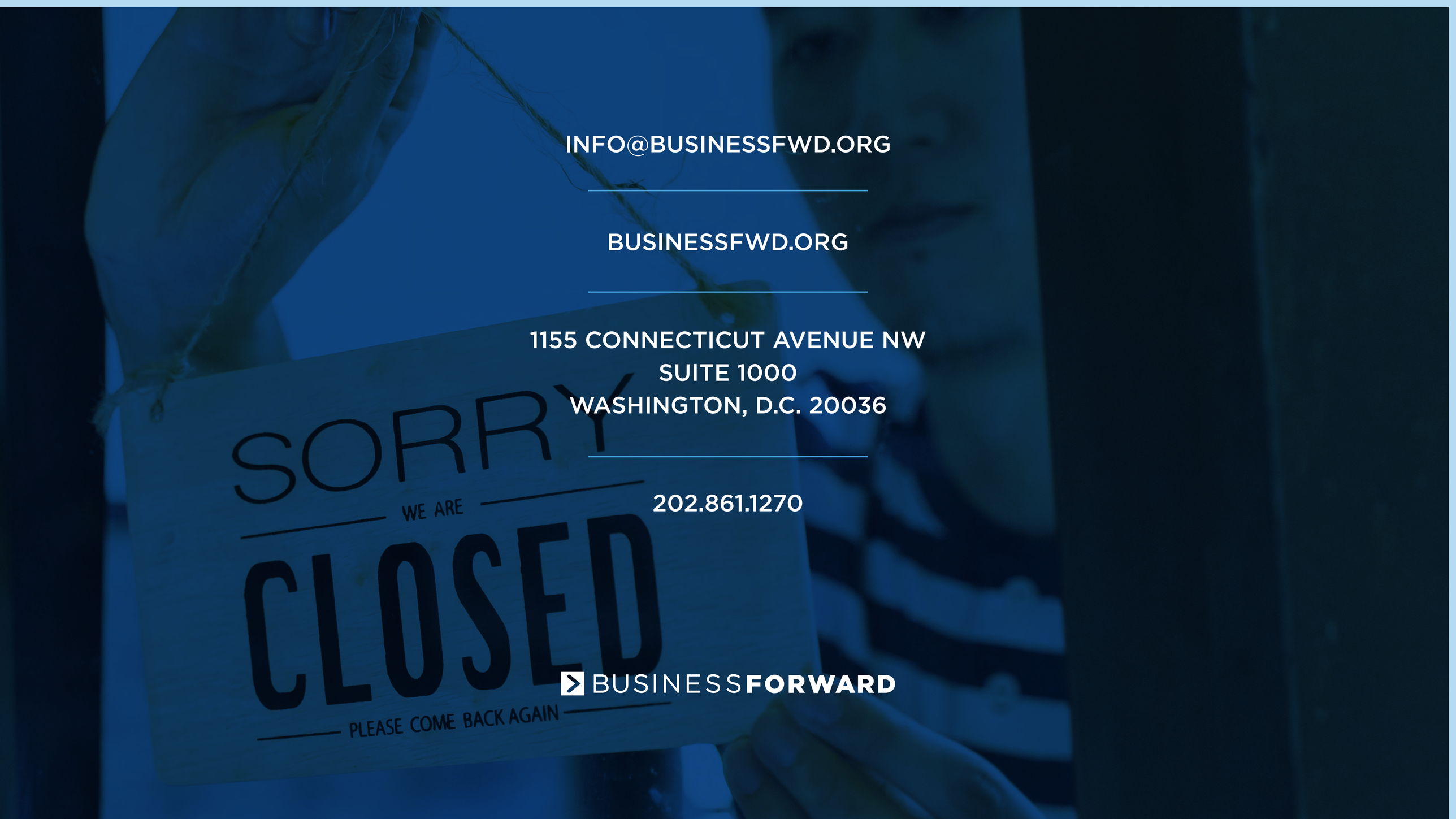

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