Washington Rural Broadband Workshop

Sharing Best Practices and Delivering Broadband to Rural Communities

Washington Rural Broadband Workshop

1835 Black Lake Blvd., SW,
Olympia, WA

September 16, 2019

Kirk Pearson

United States Department of Agriculture

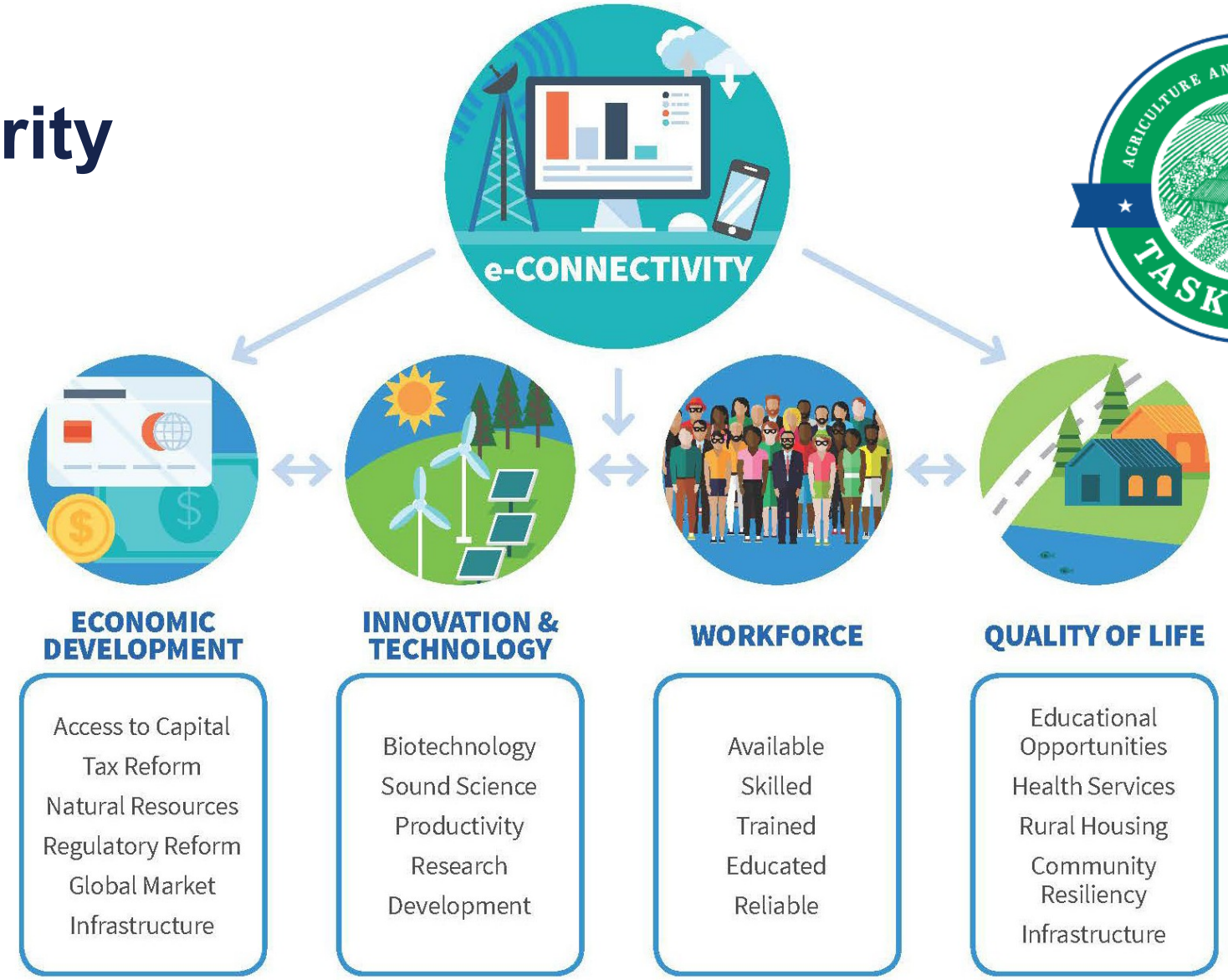
Washington State Director

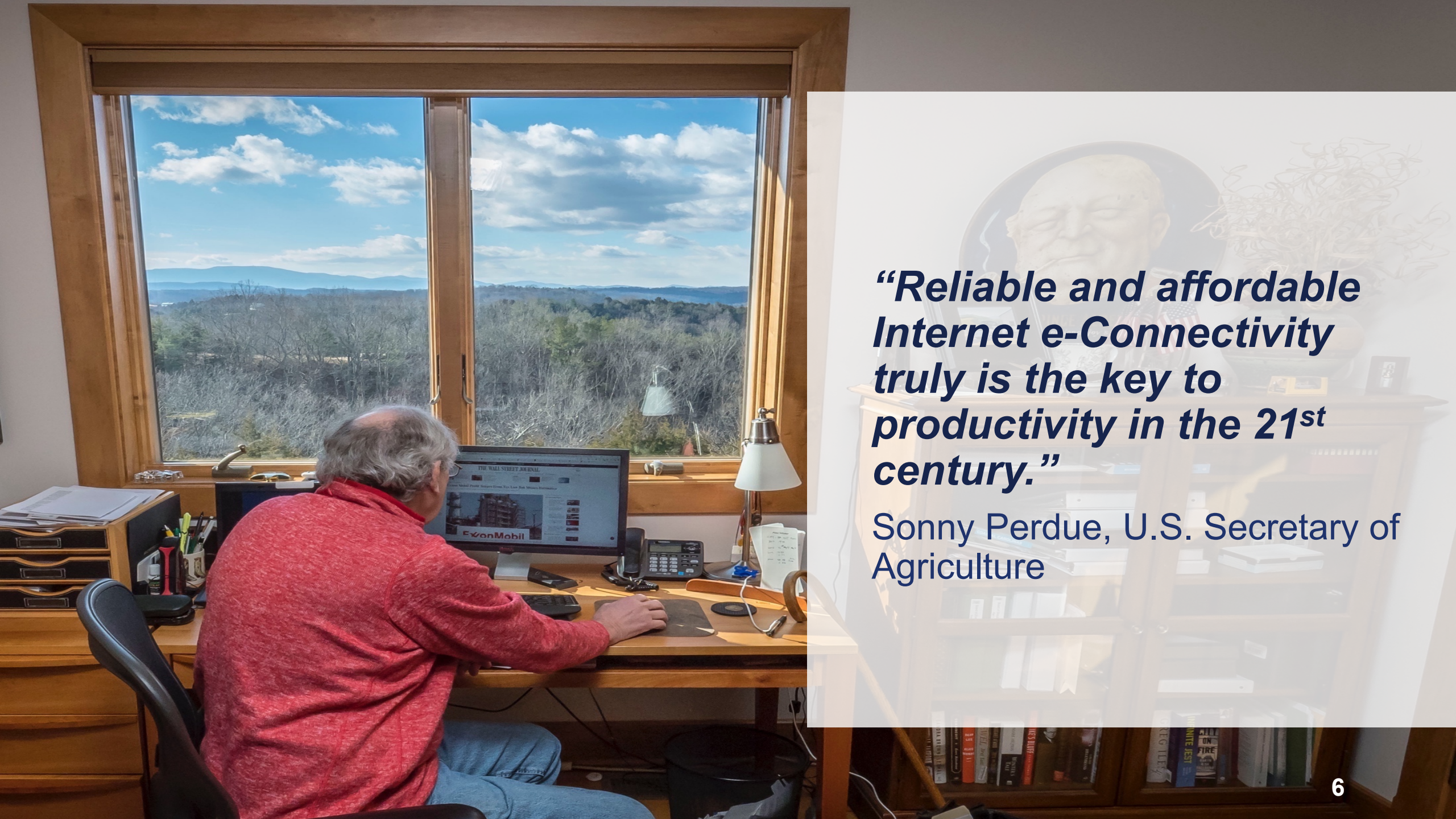
"Americans need access to reliable, affordable broadband Internet service to succeed in today's information-driven global economy."

President Donald J. Trump,
January 8, 2018

Agriculture & Rural Prosperity Task Force

Rural Prosperity





"Reliable and affordable Internet e-Connectivity truly is the key to productivity in the 21st century."

Sonny Perdue, U.S. Secretary of Agriculture

Kirk Pearson

United States Department of Agriculture

Washington State Director

John Flanagan

Policy Advisor

Office of the Governor

Karen Archer Perry

Senior Policy Analyst

National Telecommunications and Information Administration

Washington Rural Broadband Workshop

Agenda

- 9:00 Welcome and Opening Remarks
- 9:20 Broadband Applications that Drive Rural Prosperity
- 10:10 *Break*
- 10:30 Broadband Partnerships; Community Solutions
- 11:20 USDA ReConnect and Other Federal Support for Broadband
- 11:40 Washington State Broadband Office and Programs
- 12:10 Announcement about afternoon workshop sessions
- 12:15 *Lunch*
- 12:45 Creating a Broadband Action Team (BAT)
- 1:35 Broadband Data Overview and Exploring Your Community Data
- 3:15 Action Planning and Additional Resources
- 3:45 Wrap Up
- 4:00 *End*

Broadband Applications that Drive Rural Prosperity

- **Moderator**: Frances Sakaguchi, Economic Development Integrator, Economic Development Administration
- Dale Merten, Chief Operating Officer, Toledo Telephone
- Crystal Hottowe, Grants Writer, The Makah Tribe
- Merry-Ann Keane, Chief Administrative Officer, PeaceHealth Peace Island Medical Center
- Jay Gordon, Farmer and Policy Director, Washington Dairy Federation

Rural Broadband Success!

- *Dale Merten, Vice President*
  Chief Operating Officer
  Toledo Telephone

ToledoTel

- 100% Fiber Network
- 1st to receive Gigabit Certification
- 1st rural school Gigabit Connection
- 1900 customers
- 93% subscribe to broadband
- Smart Rural Community

ToledoTel

How We Did It

- $18 million USDA loan (2011)
- 5 year project completed in 4 years
- $4 million under budget
- Support from Lewis County Commissioners
- $7,800.00 per location

ToledoTel

What It Means To Our Community

- Every tax parcel has gigabit fiber
- New housing starts are through the roof
- Families moving in – good for schools
- Most are telecommuters – good for environment
- Schools, library, EMS, bank all have 1 gig

ToledoTel

No Surfing

- Exited cable TV in 2007
- Everyone gets free Roku box
- Managed Mesh WiFi home networks
- Average home has 12 devices
- Biggest challenge is wireless gadgets in the home

ToledoTel

Impact on Students

- Every kid has access to broadband at home
- 93% take rate
- All schools connected with a gig
- WAP's EVERYWHERE!
- 98% of 2019 seniors graduate with…
- A) headed to college / trade school
- B) Jobs!

ToledoTel

Broadband Makes It Possible

- It’s also about outreach
- Best network in the world, but tell the story
- Be involved in the community
- Know commissioners, state reps, congress
- Partner with competition
- There is no box!

ToledoTel

Thank You

Dale Merten

dale@toledotel.com

Broadband Applications that Drive Rural Prosperity

- *Crystal Hottowe, Grants Writer, The Makah Tribe*

Broadband Applications that Drive Rural Prosperity

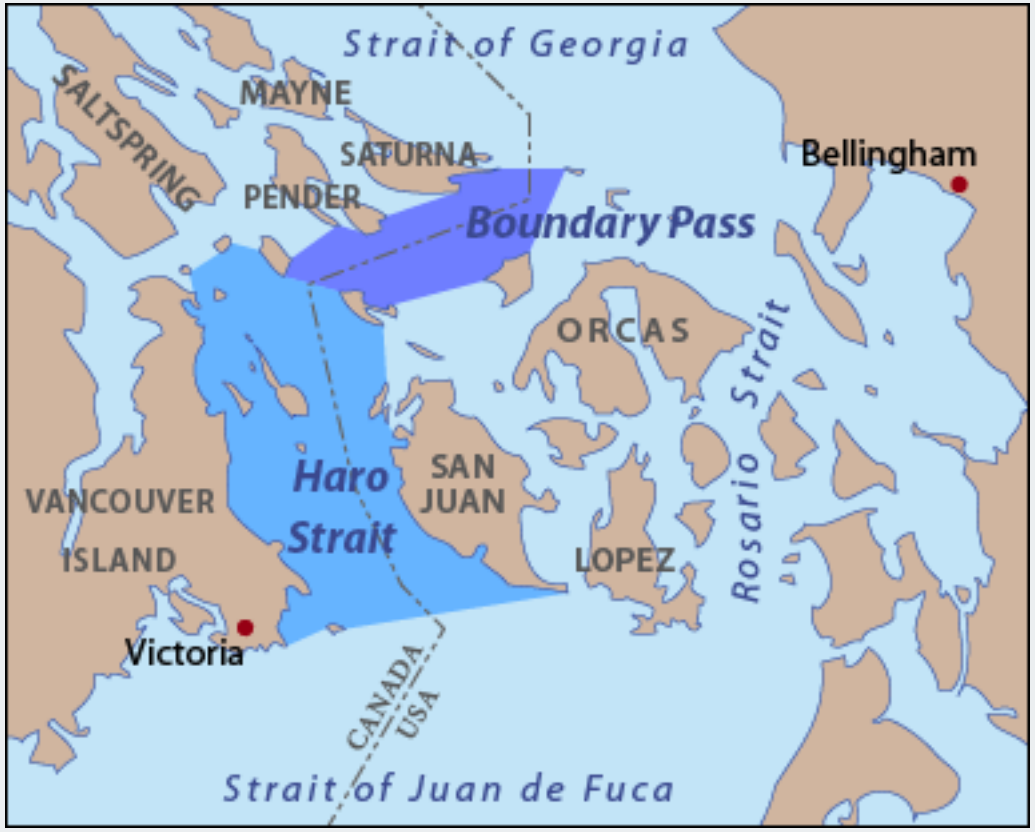
- *Merry-Ann Keane, Chief Administrative Officer, PeaceHealth Peace Island Medical Center*

Telemedicine Services at PeaceHealth Peace Island Medical Center

September 2019

PeaceHealth
The Spirit of Health

Peace Island Medical Center



Situated on San Juan Island, PeaceHealth Peace Island Medical Center is a 10-bed critical access hospital with primary care, specialty clinics, a cancer center, surgical services and a 24-hour emergency department.

What is Telemedicine?

What is offered at Peace Island Medical Center

- Telepsychiatry
- Cardiology
- Infectious diseases
- Teleoncology
- Telegenetics
- Tele Antimicrobial Stewardship program
- Palliative Care (in process development)

Integrated Behavioral Health at Peace Island Medical Center

- AIMS model
- PCP-driven
- Embedded behavioral health social worker
- Psychiatrist consult
- Telehealth Psychiatry visits (short term)
- PCP medication management; collaboration with psychiatry

Benefits of Telemedicine

- Patient Experience
- Access
- Provider Experience
- Reduced cost
- Keeps care in the community

References

1. https://www.aha.org/system/files/2018-03/peacehealth-telepsychiatry-program.pdf

Broadband Applications that Drive Rural Prosperity

- *Jay Gordon, Farmer and Policy Director, Washington Dairy Federation*

High speed internet & farming

Jay Gordon

Farmer,

Elma, Washington

September 16, 2019

Learn, adapt, check, modify, plagarize, order, buy-sell, steal designs, engineer, - all by looking the world over from an I-phone or computer.

- Want to grow a new crop?
- Hemp legalized December 2018, federally and April 26th, 2019 in Washington State.
- Hemp strains of cannabis not grown across US since WWII – few extension bulletins or agents.

So,

- May 5 - What seed, where to get, at what price, how to trust quality… Order.
- May 25- Transplants started – how to field prep, plasti-culture, Drip irrigation operation? What Ph, Ca, N-P-K, Micronutrients? Machinery design, materials sourcing, ordering, construction.
- June 25 – Planting, Spacing, Watering level, What Fertilizer program, sexing plants: Testing by WSDA.
- Seed production for next year. How to Feminized seed?
- Still to do– Harvest, timing, Drying, processing, packaging, marketing, sales, shipping…

Verizon 10:37 PM 53%

iridl.ldeo.columbia.edu

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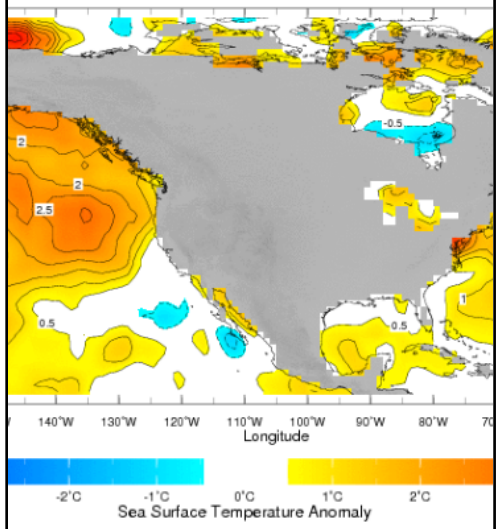
Jul 2019



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mperature Anom

displays monthly se
ure anomalies for the globe

Break Time

- 10:10-10:30

Broadband Partnerships; Community Solutions

- **Moderator**: Janae Delk, Executive Director and Tribal Liaison, Community Economic Revitalization Board
- Justin Holzgrove, Telecommunications & Community Relations Manager, Mason PUD 3
- Emily Schub, Director of Administrative Services, City of Anacortes
- Victoria Compton, Director, San Juan Economic Development Council

Broadband Partnerships; Community Solutions

- *Justin Holzgrove, Telecommunications & Community Relations Manager, Mason PUD 3*

Broadband Partnerships; Community Solutions

- *Emily Schub, Director of Administrative Services, City of Anacortes*
- *Jim Lemberg, Municipal Broadband Business Manager, City of Anacortes*

Broadband Partnerships; Community Solutions

- *Victoria Compton, Director, San Juan Economic Development Council*

Tim O'Connell

United States Department of Agriculture, Innovation Center

USDA ReConnect and Other Federal Support for Broadband

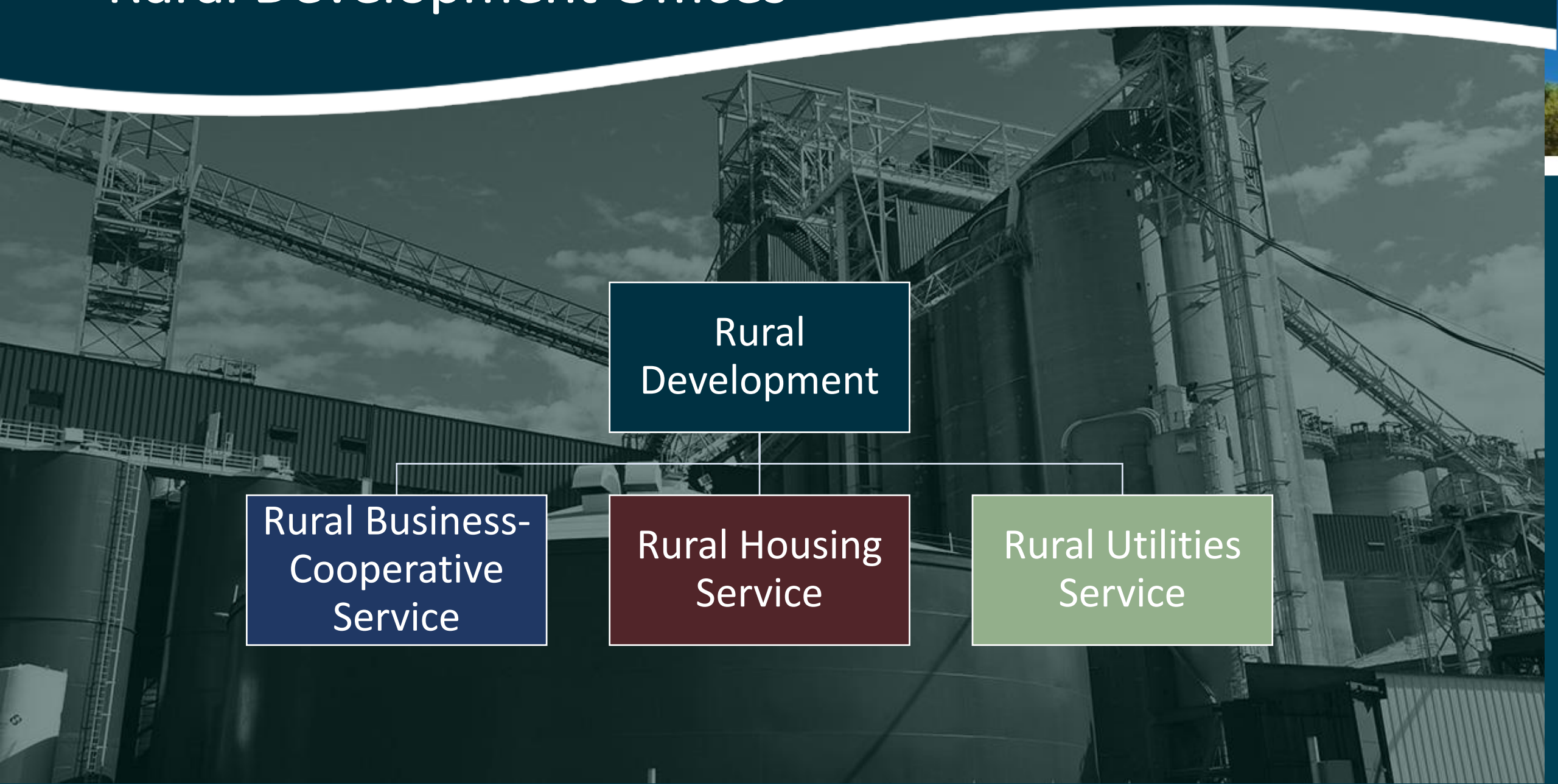
USDA United States Department of Agriculture

Rural Development

USDA Rural Development Broadband Programs

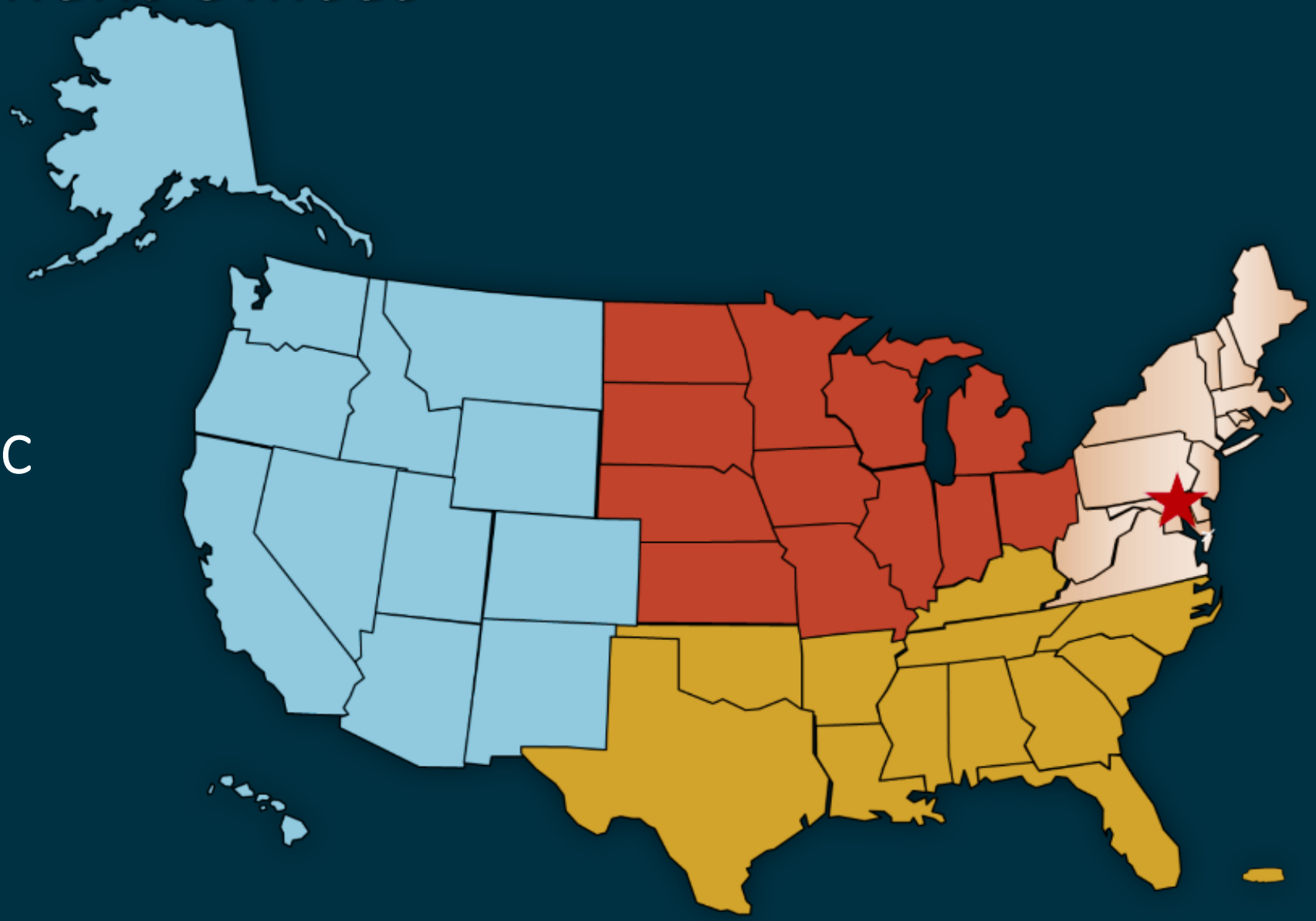
One USDA, Eight Mission Areas

Rural Development Offices



Rural Development Offices

4 Regions
47 State Offices
400 Area Offices
1 National Office in DC

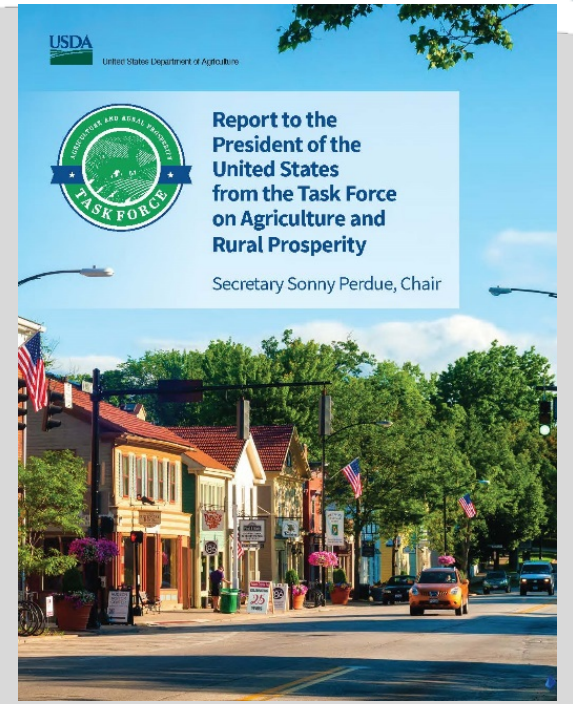


RUS Telecommunications Programs History

From electricity to broadband…

1935	Rural Electrification Administration (REA) created and began providing financing to promote rural electrification
1949	REA received authority to finance telephone service in rural communities
1995	Evolving from the REA, the Rural Utilities Service (RUS) required all financed telecommunications networks have the capacity to deliver broadband
2010 to present	RUS has provided **$6.2 billion** in loans and grants to build out broadband infrastructure in rural areas

Interagency Task Force on Agriculture and Rural Prosperity



Task Force on Agriculture and Rural Prosperity Report

- www.usda.gov/sites/default/files/documents/rural-prosperity-report.pdf

Calls to Action:

1. **Achieving e-connectivity for Rural America**
2. Improving Quality of Life
3. Supporting a Rural Work Force
4. Harnessing Technological Innovation
5. Developing the Rural Economy

More information

- www.usda.gov/ruralprosperity

Objectives & Recommended Actions:

1. Establish Executive Leadership to Expand E-connectivity Across Rural America
2. Assess State of Rural E-connectivity
3. Reduce Regulatory Barriers to Infrastructure Deployment
4. Assess Efficacy of Current Programs
5. Incentivize Private Capital Investment

National RUS Broadband Funding Since 2010

Since FY2010, RUS has invested approximately $6.4 Billion in projects serving rural residents in the United States:

Program	Projects Approved	Funds Awarded
Telecommunications Infrastructure Program	176	$2.9 Billion
Farm Bill Broadband Program	7	$225.6 Million
Distance Learning and Telemedicine Program	807	$249.7 Million
Community Connect Grant Program	91	$144.9 Million
Broadband Initiatives Program	258	$2.9 Billion
Grand Total	**1,339**	**$6.4 Billion**

Rural Utilities Service
Telecommunications Program
Washington Investments, FY 2010-FY 2019

Program Investments in Washington

Program	Projects Approved	Funds Awarded
Telecommunications Infrastructure Program	4	$75,140,400
Distance Learning and Telemedicine Program	26	$6,372,377
Community Connect Grant Program	2	$3,650,172
Broadband Initiatives Program	5	$36,315,799
Grand Total	**37**	**$121,478,748**

Telecommunications Infrastructure Program

Available Funding

FY 2017

- **$690 million** available in FY 2016

FY 2018

- **$690 million** available in FY 2017

FY 2019

- **$690 million** available in FY 2018

- Loans finance new & improved telecommunications infrastructure, primarily for the benefit of rural populations of 5,000 or less <Typically>
- Loans may serve non-rural subscribers in some cases

Program Updates

FY 2017

- **21** loans approved: **$427.4 million**

FY 2018

- **13** loans approved: **$161.9 million**
  - **NV, SD, VA, IA (x3), MN, WI, SD, MO, AZ, NM, KY**

FY 2019

- **8** loans approved: **$135 million**
  - **KY, IL (x2), TN, NM, SC, WI, IN**
- **9** loans in process: **$119.8 million**

- Applications are accepted year round
- RD Apply online application system

https://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees

Updated: 9/4/2019

Washington Projects

Telecommunications Infrastructure Program

Awardee ID	Awardee Name	Award Amount	% Serving State	Estimated Funds Awarded	Fiscal Year
[redacted]	Inland Telephone Company	$24,823,000	80%	$19,858,400	2011
[redacted]	Western Wahkiakum County Telephone Company	$12,708,000	100%	$12,708,000	2011
[redacted]	The Toledo Telephone Co., Inc.	$18,091,000	100%	$18,091,000	2011
[redacted]	Mashell Telecom, Inc	$24,483,000	100%	$24,483,000	2014
			Total	**$75,140,400**	

https://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees

Updated: 9/4/2019

Telecommunications Farm Bill Broadband Program
(aka Rural Broadband Access Loan and Loan Guarantee Program)

Available Funding

FY 2016
- **$64 million** available in FY 2016

FY 2017
- **$27 million** appropriated in FY 2017

FY 2018
- **$29.9 million** available in FY 2018

FY 2019
- **$29.851** available in FY 2019 *

* Additional Carry over funding is available from previous fiscal years

- Loans finance the costs of constructing a broadband network
- Amounts from $100,000 to $25 million
- Broadband Service and Broadband Lending Speed is defined as 25 Mbps (download) and 3 Mbps (upload)
- Serving rural communities of 20,000 or less <typically>
- At least 15% of the proposed funded service area households in unserved
- Cannot have 3 or more incumbent service providers
- Service area cannot be in a RUS previously funded area

Program Updates

FY 2016
- **1** loan approved: **$4.1 million**

FY 2017
- **2** loans approved: **$24.0 million**

FY 2018
- **1** loan approved: **$19.9 million**

FY 2019
- **1** loans approved: **$17.7** million
- **4** loans in process: **$48.6** million

- **RD Apply** online application system
- **NOSA Released** on November, 15, 2018. Accepting applications through 9/30/19.
- The 2018 Farm Bill made changes to the program. Currently being implemented.

https://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees

Updated: 09/04/19

Notable 2018 Farm Bill Changes to Broadband Programs

Section 6201: Access to broadband service in rural areas –

Expands the funding authorities to include grants, loans, loan guarantees and payment assistance; modifies some of the program priority and eligibility requirements; and increases the potential funding level for the program

- Adds Grant Funding and Payment Assistance
- Requires Guarantee Program
- Modifies Required "unserved" HH percentage from 15% to 50% for loans and 90%for grants
- Establishes New Priorities
- Increases Authorized Funding Level from $25 million to $350 million
- Establishes new "broadband buildout" standards associated with the life of the loan
- Requires additional communication and coordination with NTIA and FCC

Section 6202: Expansion of Middle Mile Infrastructure

- Authorizes the agency to provide funding for stand alone middle mile projects

Section 6214: Rural broadband integration working group

- Establishes a rural broadband working group across Federal agencies to identify, assess, and determine possible actions relating to barriers and opportunities for broadband deployment in rural areas

Updated: 09/04/19

Community Connect Program

Available Funding

FY 2016
- **$11.74 million** available in FY 2016

FY 2017
- **$34.5 million** available in FY 2017

FY 2018
- **$30.0 million** available in FY 2018

FY 2019
- **$33.0 million** available in FY 2019

General provisions as of the latest NOSA:
- Grant funds for Broadband Service deployment
- Population of 20,000 or less
- Amounts from $100,000 to $3 million
- Service Area must be **entirely** unserved
- Minimum Broadband Service is defined as 10 Mbps (download) and 1 Mbps (upload)
- Minimum Broadband Grant Speed is defined as 25 Mbps (download) and 3 Mbps (upload)
- 15% Matching Requirement

Program Updates

FY 2016
- **Over 70** applications processed: **$120 million**
- **9** grants approved**: $15.6 million**
- States (x6): IN*, KY, OK, TN, VA, WV

FY 2017
- **48** Applications processed: **$90.8 million**
- **16** grants approved**: $35.3 million**
- States (x11): AL, GA*, ID, ME, MN, NC, OK, TN, VA, WA, WY

FY 2018
- **124** Applications processed: **$225.6 million**
- **14** grants approved**: $30.0 million**
- States (x9): KY*, MN, NC, ND, OK, NC, TN, VA*, UT

FY 2019
- **62 applications in process: $100.1 million. Still in progress.**

* HQ State, but grant benefited additional state(s)

http://www.rd.usda.gov/programs-services/community-connect-grants

Updated: 09/04/19

Washington Projects

Community Connect Grant Program

Awardee ID	Awardee Name	Award Amount	% Serving State	Estimated Funds Awarded	Fiscal Year
[redacted]	Confederated Tribes of the Colville Reservation	$1,303,794	100%	$1,303,794	2012
	Hood Canal Telephone Company, Inc.	$2,346,378	100%	$2,346,378	2017
			Total	$3,650,172	

http://www.rd.usda.gov/programs-services/community-connect-grants

Updated: 09/04/19

Distance Learning and Telemedicine (DLT) Program

Available Funding

FY 2016

- **$23.4 million** available in FY 2016

FY 2017

- **$23.6 million** available in FY 2017

FY 2018

- **$29.0 million** available in FY 2018
- **$20.0 million** additional available in FY 2018 in rural areas to help address the opioid epidemic in rural America

FY 2019

- **$37.9 million** available for traditional DLT
- **$26.1 million** available for Opioid DLT

- Grants fund equipment needed to provide Distance Learning and Telemedicine services
- 15% Matching Requirement
- Minimum Grant amount: $50,000
- Maximum Grant Amount: $500,000
- Only grants are available-no loans or combo loan/grants

Program Updates

FY 2016

- **182** applications received
- **98** applications approved: **$27.7 million**
- **35** States & Territories represented

FY 2017

- **208** applications received
- **86** applications approved: **$27.7 million**
- **46** distance learning & **40** telemedicine projects
- **30** States & Territories represented

FY 2018

- **225** applications received for **$68.4 million**
- **132** applications approved for **$40.8 million**:

DL	TM	Overall
67 awards	65 Awards	132 awards
32 States	39 states	**45 states & Territories represented**
$22.7 million	$18.1 million	$40.8 million

STEM & Opioid Special Consideration Point Projects

63 Opioid	51 STEM	18 None	132 awards
$17.9 million	$18.6 million	$4.4 million	Tot: $40.8 million

FY 2019

- Opioid DLT FY2019 – 15 Submissions received , 12 grants approved for $2.75 million
- Traditional DLT FY2019 –166 Applications received & being processed

http://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants

Updated: 09/04/19

Washington Projects
DLT

Awardee Name		Award Amount	% Serving State	Fiscal Year
Chelan County Public Hospital District No. 2 dba Lake Chelan Community Hospital		$487,148	100%	201
Providence Health & Services - Washington d/b/a Providence St. Peter Hospital		$309,368	100%	201
Stevens County		$314,910	100%	201
Clallam County Hospital District 2		$113,466	100%	201
Seattle Science Foundation		$215,025	100%	201
Confederated Tribes of the Colville Reservation		$500,000	100%	201
Kiona-Benton City School District		$168,473	100%	201
Confluence Health		$331,935	100%	201
Kadlec Regional Medical Center		$329,269	70%	201
Pullman Regional Hospital Foundation		$280,468	100%	201
Whitman Hospital and Medical Center		$500,000	67%	201
Northwest Indian College		$264,696	88%	201
Washington State Community College District 17		$377,258	100%	201
Wenatchee Valley College		$457,028	100%	201
Sunnyside Community Hospital Association		$68,237	100%	201
University of Washington		$350,000	70%	201
Cowlitz 2 Fire & Rescue		$73,672	100%	201
	TOTAL	$5,140,953		

ReConnect Program

Pilot program that provides loans and grants to extend broadband service to rural areas.

Must serve communities with fewer than 20,000 people with no broadband service or where service is slower than 10 megabits per second (mbps) download and 1 mbps upload.

FY 2019 three funding streams:

- 100 % loan
- 50% loan / 50% grant
- 100 % grant

No matter which funding type the applicant requests, the proposed network must be capable of providing service to every premise in the proposed funded service area at a speed of at minimum, 25 Mbps downstream and 3 Mbps upstream.

https://www.usda.gov/reconnect

ReConnect Program

2019 Program:

- Received 78 applications requesting more than $522 million in grant only funding ($200 million available).
- Received 53 applications requesting $635 million in loan-grant combination funding ($200 million available)
- Received 15 applications requesting more than $258 million in loan only funding ($200 million available).

2020 Program:

- Some changes from 2019, unknown at this time.
- Approximately $580 million available.

Substantially Underserved Trust Areas (SUTA)

Modified Loan Terms for Serving a Substantially Underserved Trust Area (SUTA).
At the discretion of Administrator, RUS can modify certain loan terms or application requirements, which may include:

- Interest rates as low as 2%, extended amortization period, and/or priority processing
- Loan interest rates as low as 2 percent;
- Waiver of certain documentation requirements regarding non-duplication of service;
- Waiver of matching funds or credit support requirements for loans;
- Extension of the time period in which loans are repaid; and
- Providing the highest priority for funding to eligible projects that will serve trust areas.
- *** Please see final and individual program regulations for details and specifics.

Rural Utilities Service (RUS)

USDA Launches High-Speed Broadband e-Connectivity Resource Guide.
https://www.rd.usda.gov/files/508_RDeConnectivityToolkit121918.pdf

This e-Connectivity Toolkit features 27 USDA programs that support broadband deployment. The easy-to-use resource is a simple guide that allows customers to identify their type of e-Connectivity project and locate resources the federal government offers for planning, equipment, construction, research and other e-Connectivity projects. A resource matrix illustrates resources such as grants, loans and technical assistance are available from multiple Mission Areas at USDA, including Rural Development, National Institute of Food and Agriculture, Farm Service Agency, Natural Resources Conservation Service, and Forest Service. The toolkit also highlights examples of how e-Connectivity resources are being used to increase access to broadband services in rural communities.

Primary USDA Telecommunications Program Website (All telecommunications programs can be found at):
http://www.rd.usda.gov/programs-services/all-programs/telecom-programs

Rural Utilities Service (RUS)

Program alerts, please sign up at:
https://public.govdelivery.com/accounts/USDARD/subscriber/new

Grants.Gov alerts, please sign up at:
https://www.grants.gov/manage-subscriptions.html

Broadband Information:
John Holman, General Field Representative for OR, WA
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Washington State Broadband Programs and New State Broadband Office

- John Flanagan – Policy Advisor, Transportation and Economic Development, Governor's Office
- Constance Rivera, Program Director, Washington State Public Works Board, Department of Commerce
- Janae Delk, Executive Director and Tribal Liaison, Community Economic Revitalization Board

September 13, 2019

Washington State Broadband Programs

An overview of State programs and the new Statewide Broadband Office

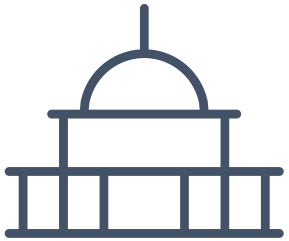
OFM

OFFICE OF FINAN

Broadband is local

- The real scope of this issue can only be measured at the local level, and real solutions happen at the local level.
- The role of the state and federal government is to facilitate local action in solving this problem.
- The best solution for Forks won't work in Pullman, the best solution for Ferndale won't even apply in Ridgefield.

Statement of Need



Organization

To avoid wasting scare public resources, and to expediently connect the state, Washington needs a detailed statewide vision, plan, and a dedicated staff to execute that plan.

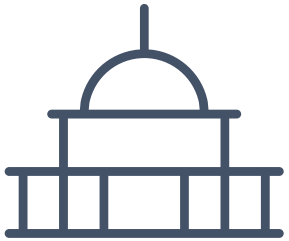
Funding

In order to connect all Washingtonians to quality, affordable, and resilient, broadband internet service, we know that substantial amounts of funding are necessary.

Flexibility & Creativity

Washington needs policies and programs that encourage new partnerships, incentivize deployment by both the public and private sectors, and capitalize on outside opportunities.

Proposed Solution



Organization

The Governor's Statewide Broadband Office (SBO)

Extensive inter-agency collaboration

Funding

Public Works Board (PWB)

State Universal Service Fund (USF)

Community Economic Revitalization Board (CERB)

Flexibility & Creativity

Public-Private partnerships

Wide eligibility

Additional authority to provide services

Table of Contents

- 2018-19 Budget Overview
- The Statewide Broadband Office (SBO)
- Public Works Board
- CERB
- Questions / audience participation

2018-19 Budget Overview

Capital Budget

- PWB Broadband Grant/Loan Program - $21.5M
  - $14.5M in loans
  - $7.1M in grants
- CERB Broadband Program - $3.5M

Operating Budget

- Operation of SBO - $264k annual
- State Universal Service Fund - $4M

Mission

- To improve:
  - Economic vitality
  - Access to health care
  - Access to education
  - Governmental operations
  - Public safety
- Through greater deployment of, and access to, broadband infrastructure for the citizens of Washington state.

Duties & Actions

- Act as the state's central broadband planning body, and develop then implement a statewide plan
- Coordinate efforts at the local, state, and federal level to improve access in unserved and underserved areas
- Set high level state policy regarding broadband including state goals
- Update the state's goals and definitions for broadband service
- Act as an information clearinghouse to incentivize deployment of quality, affordable broadband.
- Seek federal funding to supplement state and local efforts

Section 4(1) – Power and Duties

- The office has the power and duty to:
- (b) Coordinate with **local governments, tribes, public and private entities, nonprofit organizations, and consumer-owned and investor-owned utilities** to develop strategies and plans promoting deployment of broadband infrastructure and greater broadband access, while protecting proprietary information;
- (f) Encourage **public-private partnerships** to increase deployment and adoption of broadband services and applications.

Section 4(2) - Coordination

- (2) When developing plans or strategies for broadband deployment, the office must consider:

- (b) Funding opportunities that provide for the **coordination of public, private, state, and federal funds** for the purposes of making broadband infrastructure or broadband services available to rural and unserved areas of the state;

- (c) Barriers to the deployment, adoption, and utilization of broadband service, including **affordability** of service;

Section 4(3) – Federal Funds

- (3) The office may assist applicants for the grant and loan program … with seeking federal funding or matching grants and other grant opportunities for deploying broadband services.

Broadband Infrastructure Grant/Loan

- Competitive grant and loan program administered by the state Public Works Board (PWB) in collaboration with the SBO.
- Funding awarded for both infrastructure and strategic planning.
- Broad eligibility requirements, including public, private, and non-profit entities.
- Legislation laid out an application process, priority for funding, and an objection process to spur private investment, conserve scarce public resources, and ensure consumer protection.

Broadband Infrastructure Grant/Loan

- Funding remains technology neutral and provider neutral.
- Projects require 50% local match (with exceptions), and awards capped at $2M (also with exceptions).
- The SBO and PWB will develop post-award reporting requirements to ensure accountability.
- The PWB will work with the UTC to assess technical feasibility of potential projects.

Section 7(2) – Allowable uses

- (2)(a) Grants and loans may be awarded under this section to assist in funding **acquisition, installation, and construction of middle mile and last mile infrastructure** that supports broadband services and to assist in funding **strategic planning** for deploying broadband service in unserved areas.

- (b) The **board may choose to fund all or part of an application** for funding, provided that the application meets the requirements of subsection (9) of this section.

Section 7(3) - Eligibility

- (3) Eligible applicants for grants and loans awarded under this section include:
  - (a) Local governments;
  - (b) Tribes;
  - (c) Nonprofit organizations;
  - (d) Cooperative associations;
  - (e) Multiparty entities comprised of public entity members;
  - (f) Limited liability corporations organized for the purpose of expanding broadband access;
  - and (g) Incorporated businesses or partnerships.

Section 7(5) – Application Materials

- (5) An applicant for a grant or loan under this section must provide…:
- Basics: Location of **project**, proof of unserved, **scalability**, number of households passed, estimated retail **cost**, proposed download and upload **speeds**, evidence of **community support**, anticipated benefits to the community, estimated total cost of project, other funding used, long-term **sustainability** of the project, strategic plan for long-term maintenance, etc.
- (o) Evidence that before submission of the application, the applicant contacted all entities providing broadband service near the proposed project area to ask each service provider's plan to upgrade service in the area
- PWB will clarify requirements and additional materials by rule

Section 7(7) – Priority for funding

- (7)(a) In evaluating applications and awarding funds, the board **shall** give priority to applications that are constructed in areas identified as **unserved**. (b) In evaluating applications and awarding funds, the board **may** give priority to applications that:
    - Involve **public-private partnerships**, are **shovel-ready**, open access, benefit **tribal governments** and are constructed on tribal lands, serve economically **distressed areas**, serve anchor institutions, benefit **telemedicine** and telehealth, provide education and training to residents, promote adoption and utilization for new users, show community support, demonstrate greater longevity, seek lowest amount of funding overall, utilize existing infrastructure, benefit **public safety and fire preparedness**, and others.
- (d) The **board shall consider affordability and quality of service to end users** in making a determination on any application.

Section 7(6) – Objection Process

- At the close of a grant and loan application window, the PWB will publish submitted applications online. Existing service providers will be given the opportunity to submit (in writing and certified by affidavit) an **objection to an application** confirming that:
  - (i) The project would result in overbuild, meaning that the objecting provider **currently provides, or has begun construction to provide**, broadband service to end users in the proposed project area … ; or
  - (ii) The objecting provider **commits to complete construction** of broadband infrastructure and provide broadband service to end users in the proposed project area …, **no later than twenty-four months** after the date awards are made ….
- The PWB may evaluate the information submitted by an objecting provider and must consider it in making a determination on the application.

Section 7(9) – Limits on funding

- (9)(a) No funds awarded under this section may fund more than **fifty percent of the total cost** of the project, except as provided in (b) of this subsection.

- (b) The board may choose to fund **up to ninety percent of the total cost** of a project in financially distressed areas as the term "distressed area" is defined in RCW 43.168.020, and in areas identified as Indian country as the term "Indian country" is defined in WAC 458-20-192.

- (c) Funds awarded to a single project under this section **must not exceed two million dollars**, except that the board may choose to fund projects qualifying for the exception in (b) of this subsection **up to, but not to exceed, five million dollars**.

Public Works Board

Ongoing Rulemaking

- Potential timeline
- Initial Outreach

Feasibility and Planning

- Current plan

CERB

Broadband Funding Opportunities

- Core CERB
- Planning and feasibility

Outreach and TA Model

FOR MORE INFORMATION:

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Program Director
Washington State Public Works Board
Connie.Rivera@commerce.wa.gov

Janea Delk
Executive Director and Tribal Liaison
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Janea.Delk@commerce.wa.gov

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Policy Advisor
Office of the Governor
(360) 801-9807
John.Flanagan@gov.wa.gov

OFM
OFFICE OF FINANCIAL MANAGEMENT

Karen Archer Perry

Senior Policy Analyst
National Telecommunications and Information Administration

Announcements about afternoon workshop sessions

Lunch

- 12:15 – 12:45

Special thanks to the Washington State Public Works Board for the support and donation of refreshments!

WASHINGTON STATE
PUBLIC WORKS BOARD
INFRASTRUCTURE IS FUNDAMENTAL

Monica Babine

Senior Associate

Washington State University Extension

Creating a Broadband Action Team

Rural engagement through

local Broadband Action Teams™

What is a Broadband Action Team?

A small *but mighty* group of people
who care about broadband
and work to increase:

- **Awareness**
- **Access**
- **Use**

Broadband ACTION TEAMS

Why form a BAT?

Local communities know more about their broadband availability and needs than ***any state or federal agency.***

Broadband ACTION TEAMS

Who should be on your BAT?

Everybody…because broadband touches **everyone**

- **Elected officials (commissioners, mayors, council members)**
- **Information technology experts**
- **Broadband experts and providers**
- **Librarians**
- **Medical (clinics, hospitals)**
- **Schools (K-12, higher ed)**
- **Citizens (young and old)**
- **Tribes**
- **Emergency management**
- **Workforce development**
- **Economic development**
- **Fire districts**
- **State and Federal legislators**
- **Other….**

What are some BAT projects?

- **Awareness**
  - Tech Expo
  - Gadget Garage
- **Access**
  - Community Broadband Surveys
  - Pre-positioned Fire Camps
- **Use**
  - Digital Day Camps
  - Pathways to Prosperity Conferences

Source: Stevens County/Spokane Tribe BAT

How do you decide what to work on?

- **Define** community priorities and goals
- **Assess** assets and gaps
- **Seek input** from residents and businesses
- **Meet regularly** to discuss needs and opportunities
- **Be action-oriented!**

Broadband ACTION TEAMS

What are your Broadband Community Priorities?

In your group use the *Identify your Broadband Community Priorities* worksheet to:

- **Brainstorm why it is important for your community to improve broadband access and use.**
- **Identify the top community priorities for improving broadband.**

Thank you

Monica Babine
Program for Digital Initiatives
Division of Governmental Studies and Services
Washington State University Extension
206.999.8032
babinem@wsu.edu

Broadband ACTION TEAMS

Broadband Data Overview
Exploring Your Community Data

- Karen Archer Perry, Senior Policy Analyst, National Telecommunications and Information Administration, BroadbandUSA
- Tim O'Connell, United States Department of Agriculture, Innovation Center
- Special thanks to Bob Ballance, The Center for Internet as Infrastructure, LLC.

The National Telecommunications and Information Administration (NTIA) advises on telecom policy issues

- Expanding broadband access and adoption
- Expanding spectrum opportunities for federal and commercial users
- Ensuring that the Internet remains an engine for continued innovation and economic growth

Three Federal Sources for Computer and Internet Data

- NTIA Internet Use Survey U.S. Census Bureau Current Population Survey Supplement
- American Community Survey (ACS)
  U.S. Census Bureau
- Federal Communications Commission (FCC) Form 477 Broadband Deployment and Subscription

NTIA Computer and Internet Survey

Rigorous and Comprehensive Survey Methodology

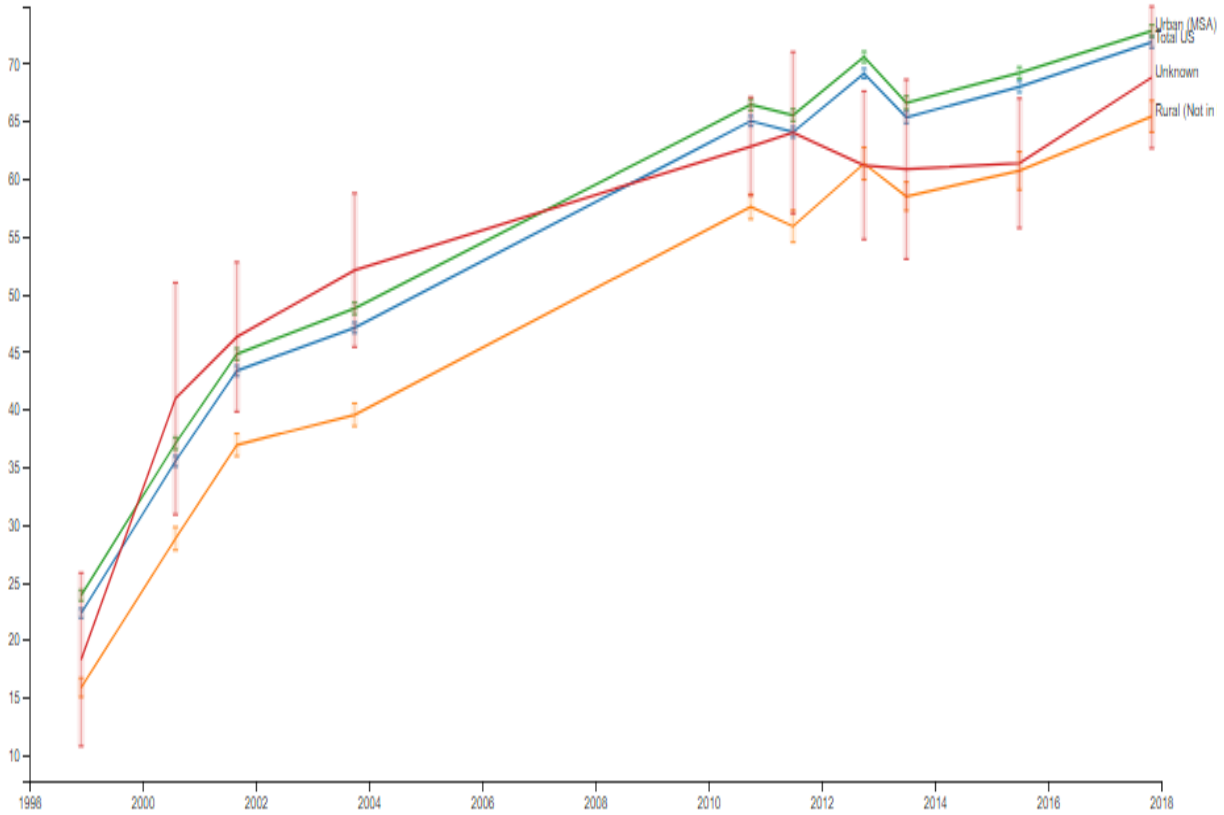
- ~52,000 households
- 85% response rate
- State-based sample design
- In-person & live phone interviews
- Conducted by US Census
- Supplement to Current Population Survey

50 Plus Computer and Internet Questions

- Device types
- Internet access technologies
- Locations of use
- Online activities
- Reasons for non-use
- Privacy and security concerns

https://ntia.doc.gov/data

Internet Use at Home – Urban and Rural Differences

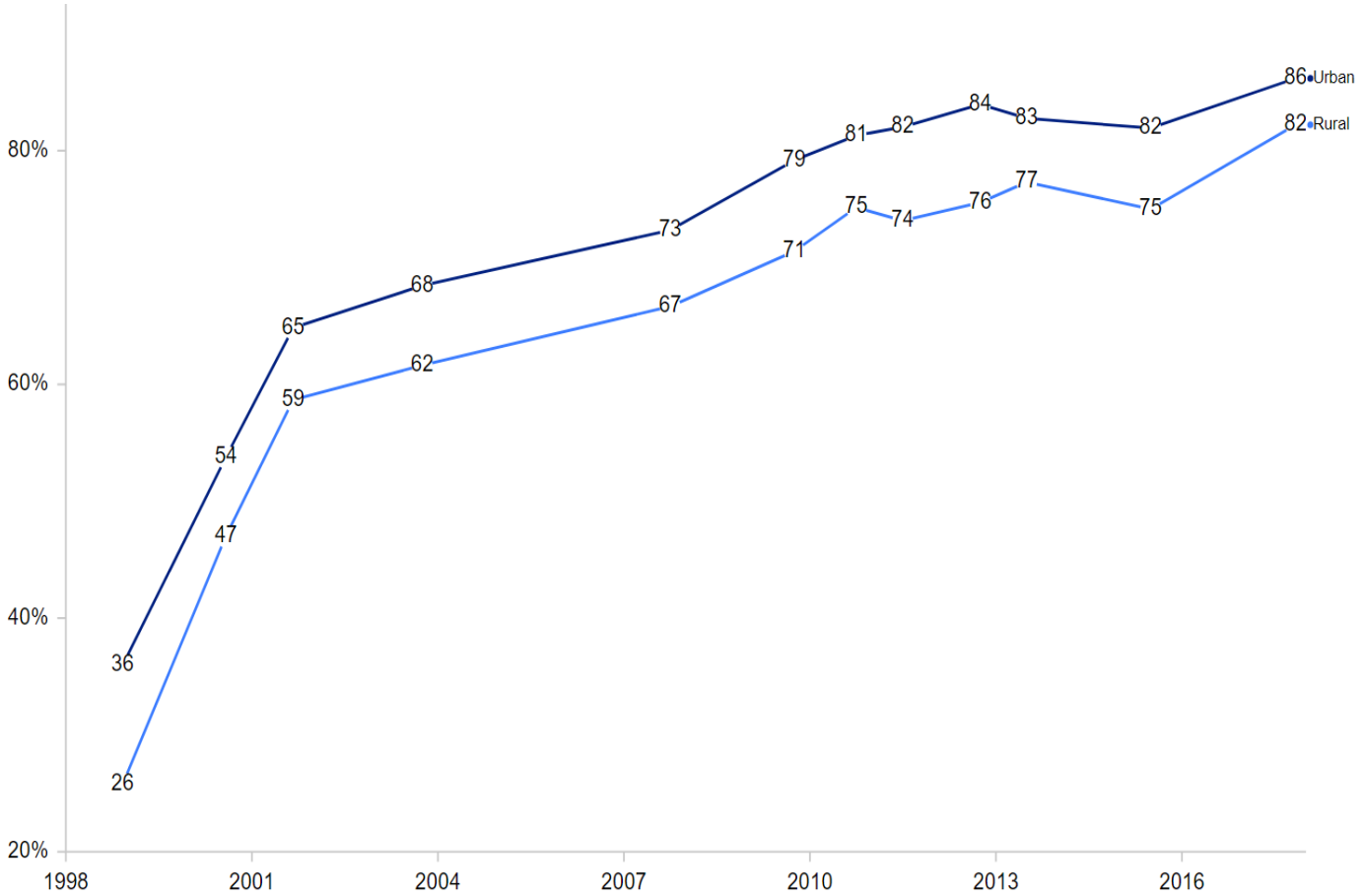


72.8% urban

65.4% rural

https://ntia.doc.gov/data

Internet Use at Home – Households w/ Children Ages 8-17

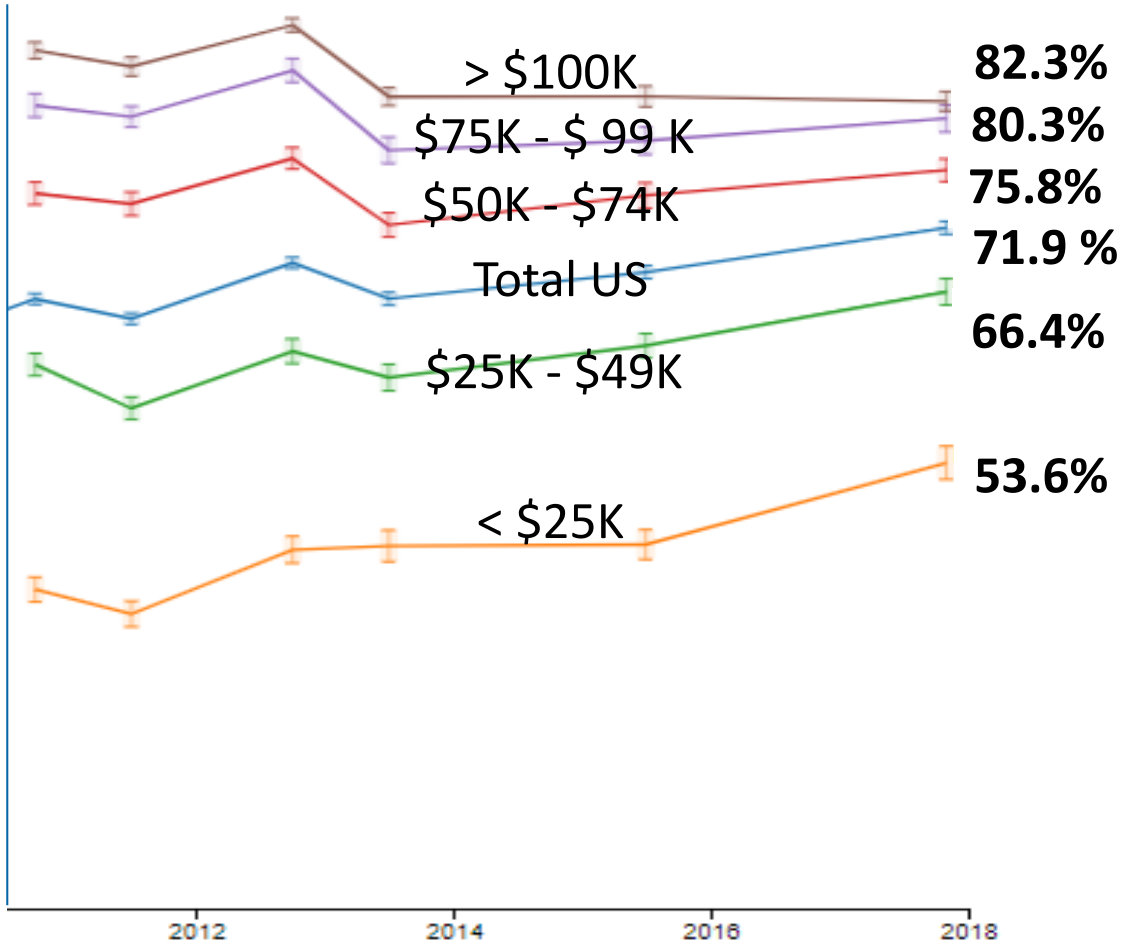


86% urban

82% rural

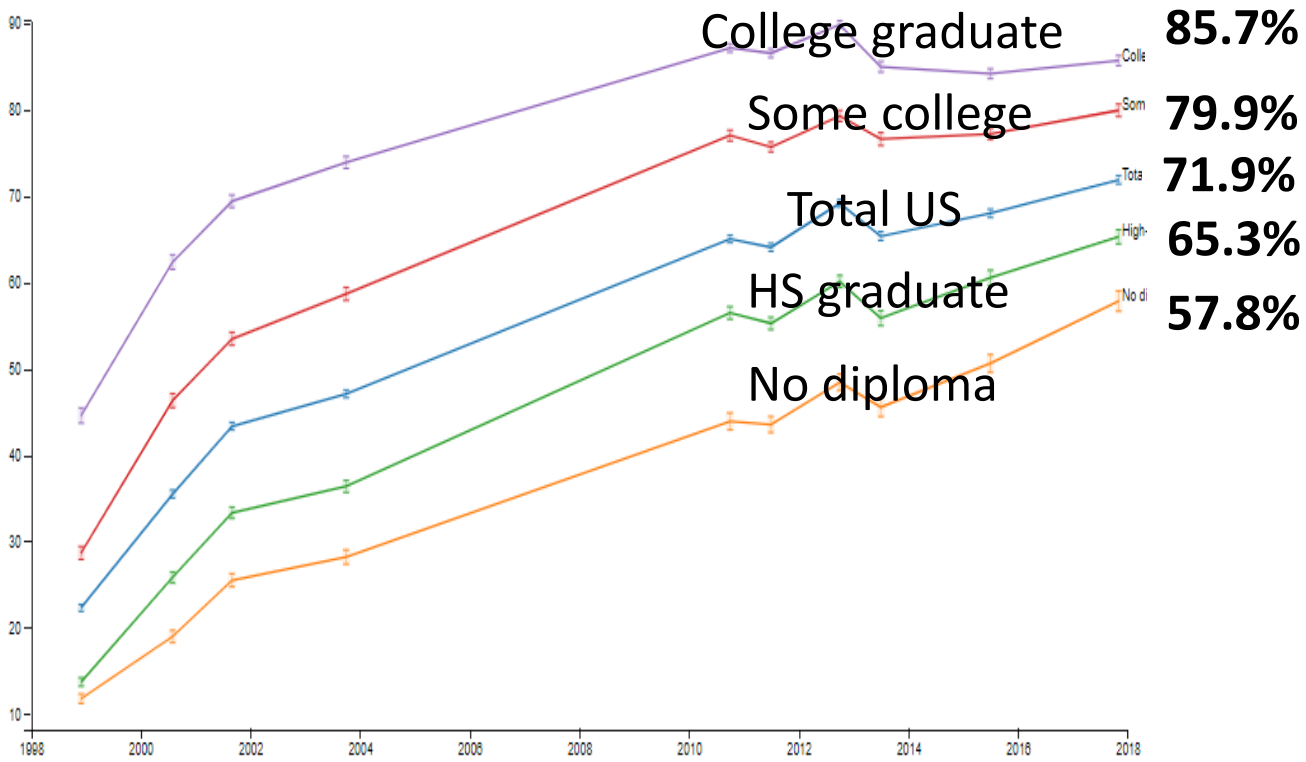
https://ntia.doc.gov/data

Internet Use at Home by Income



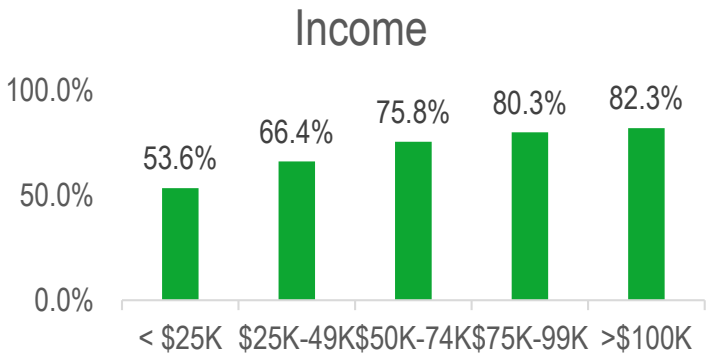
https://ntia.doc.gov/data

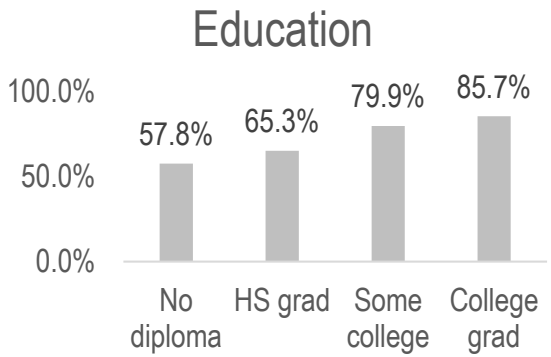
Internet Use at Home by Education

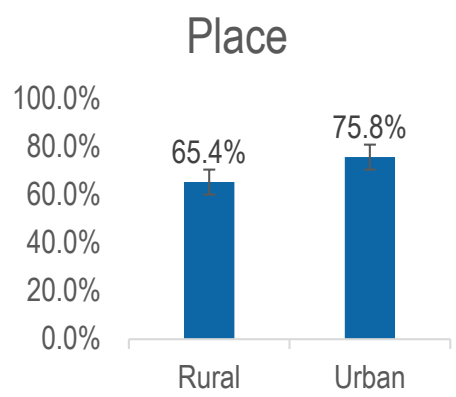


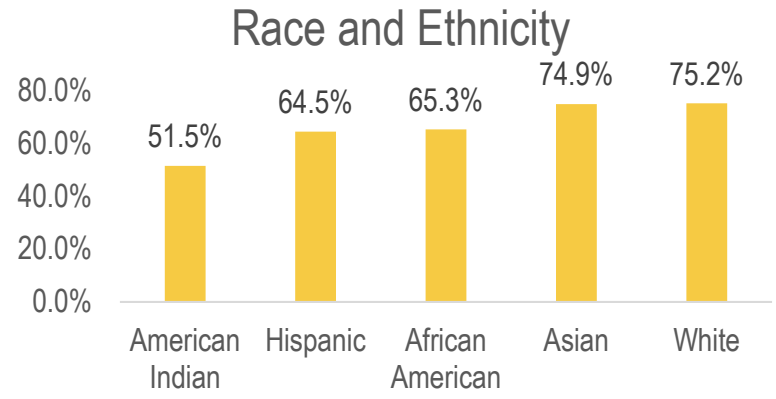
https://ntia.doc.gov/data

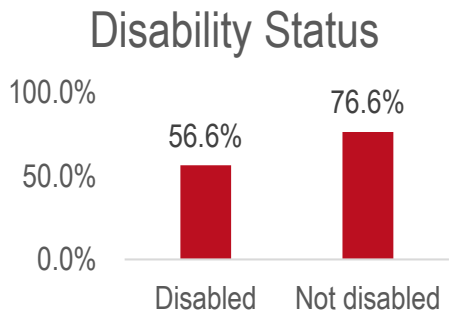
Internet Use at Home – 71.9% of people use the Internet @ Home

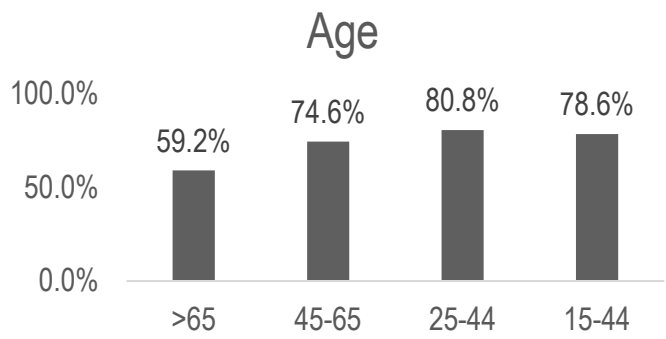




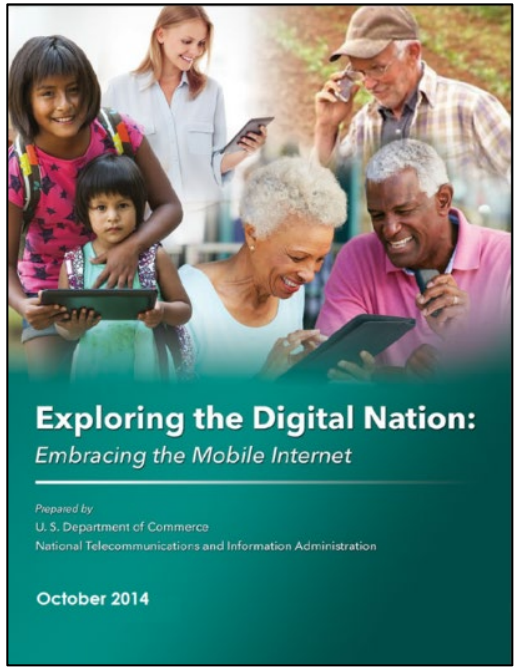




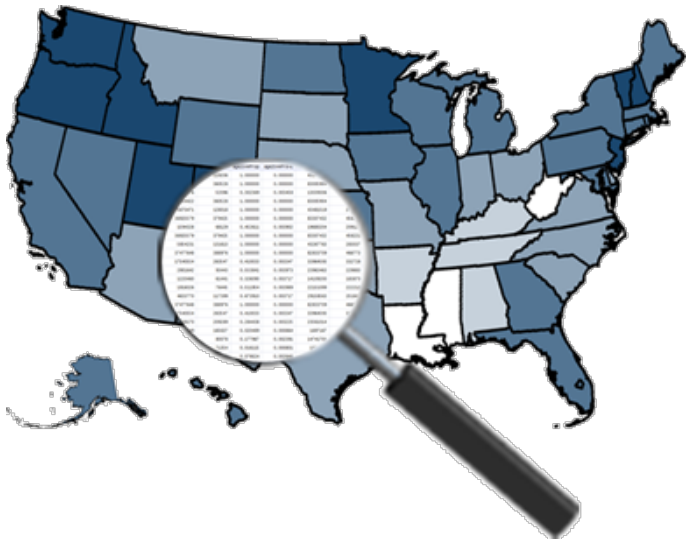




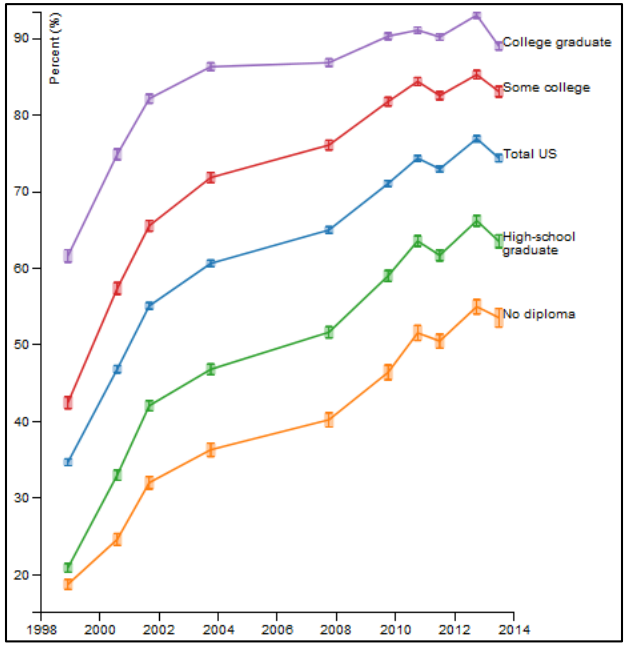
NTIA's Data Central – Computer and Internet Survey



Digital Nation Blog



Research Center



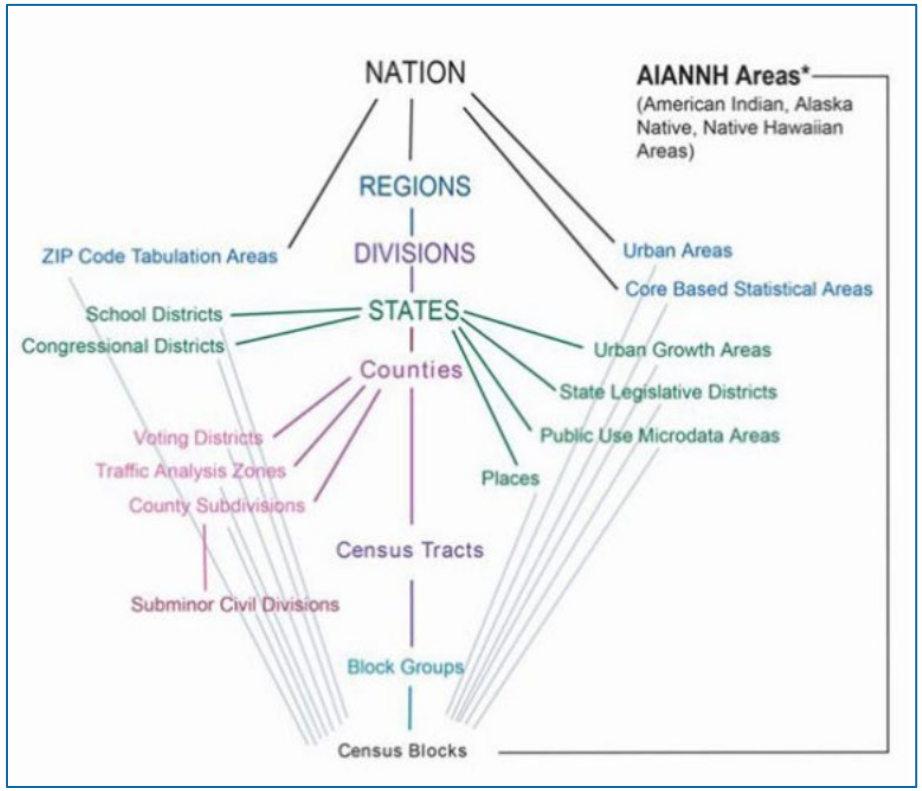
Data Explorer

https://ntia.doc.gov/data

American Community Survey - 17 Million Households over 5 years

ACS surveys 3.5M households per year for total of 17M households. 5-year estimates include:

- All 3,142 counties
- Tribal areas
- Populations of 20,000 or less
- Geographic areas down to the tract and block group level

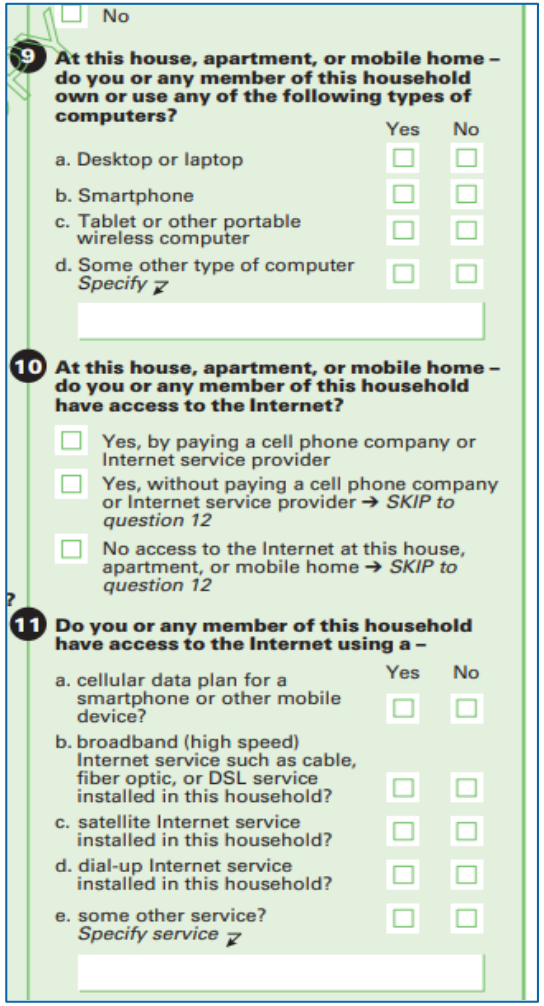


United States Census Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

www.census.gov/programs-surveys/acs

New Data on Computer & Internet Use



No

9 **At this house, apartment, or mobile home – do you or any member of this household own or use any of the following types of computers?**

	Yes	No
a. Desktop or laptop	☐	☐
b. Smartphone	☐	☐
c. Tablet or other portable wireless computer	☐	☐
d. Some other type of computer *Specify*	☐	☐

10 **At this house, apartment, or mobile home – do you or any member of this household have access to the Internet?**

- ☐ Yes, by paying a cell phone company or Internet service provider
- ☐ Yes, without paying a cell phone company or Internet service provider → *SKIP to question 12*
- ☐ No access to the Internet at this house, apartment, or mobile home → *SKIP to question 12*

11 **Do you or any member of this household have access to the Internet using a –**

	Yes	No
a. cellular data plan for a smartphone or other mobile device?	☐	☐
b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household?	☐	☐
c. satellite Internet service installed in this household?	☐	☐
d. dial-up Internet service installed in this household?	☐	☐
e. some other service? *Specify service*	☐	☐

ACS released 2013-2017
5-year estimates on December 6, 2018!

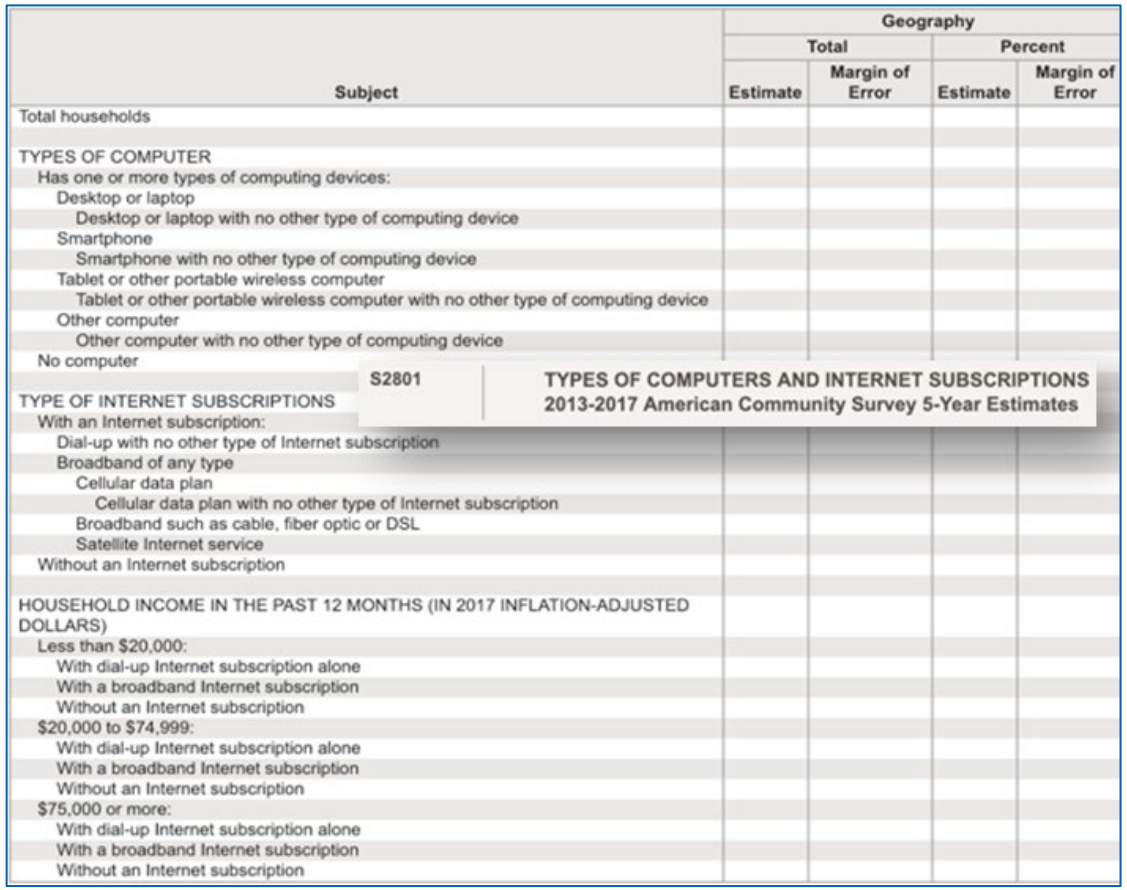
- Covers 35+ topics: age, demographics, density, children, veterans, commuting, education, income, housing, employment, poverty, industry, housing type,…
- New topics: **computer, Internet, and cell phone use**

United States Census Bureau

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

www.census.gov/programs-surveys/acs/methodology/questionnaire-archive.html

View or Download ACS Data



Subject	Geography			
	Total		Percent	
	Estimate	Margin of Error	Estimate	Margin of Error
Total households				
TYPES OF COMPUTER				
Has one or more types of computing devices:				
Desktop or laptop				
Desktop or laptop with no other type of computing device				
Smartphone				
Smartphone with no other type of computing device				
Tablet or other portable wireless computer				
Tablet or other portable wireless computer with no other type of computing device				
Other computer				
Other computer with no other type of computing device				
No computer				
TYPE OF INTERNET SUBSCRIPTIONS				
With an Internet subscription:				
Dial-up with no other type of Internet subscription				
Broadband of any type				
Cellular data plan				
Cellular data plan with no other type of Internet subscription				
Broadband such as cable, fiber optic or DSL				
Satellite Internet service				
Without an Internet subscription				
HOUSEHOLD INCOME IN THE PAST 12 MONTHS (IN 2017 INFLATION-ADJUSTED DOLLARS)				
Less than $20,000:				
With dial-up Internet subscription alone				
With a broadband Internet subscription				
Without an Internet subscription				
$20,000 to $74,999:				
With dial-up Internet subscription alone				
With a broadband Internet subscription				
Without an Internet subscription				
$75,000 or more:				
With dial-up Internet subscription alone				
With a broadband Internet subscription				
Without an Internet subscription				

S2801 TYPES OF COMPUTERS AND INTERNET SUBSCRIPTIONS
2013-2017 American Community Survey 5-Year Estimates

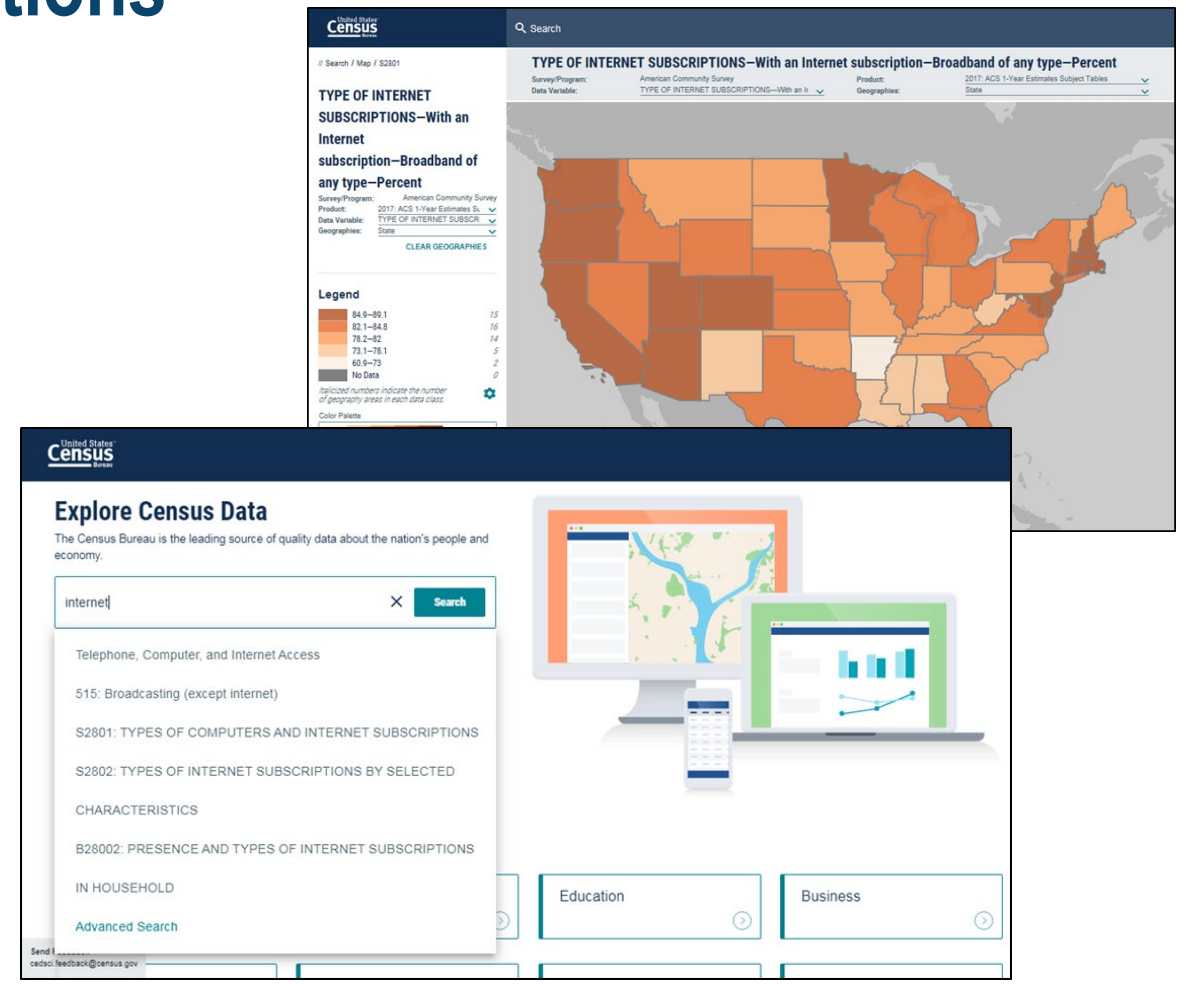
- Access via:
  - data.census.gov
  - American FactFinder (AFF)
  - Census API
  - Download Center
- Many Subject Tables including:
  - "Types of Computers and Internet Subscriptions" S2801
  - "Types of Internet Subscriptions by Selected Characteristics" S2802

factfinder.census.gov *data.census.gov*

ACS Questions on Internet Subscriptions

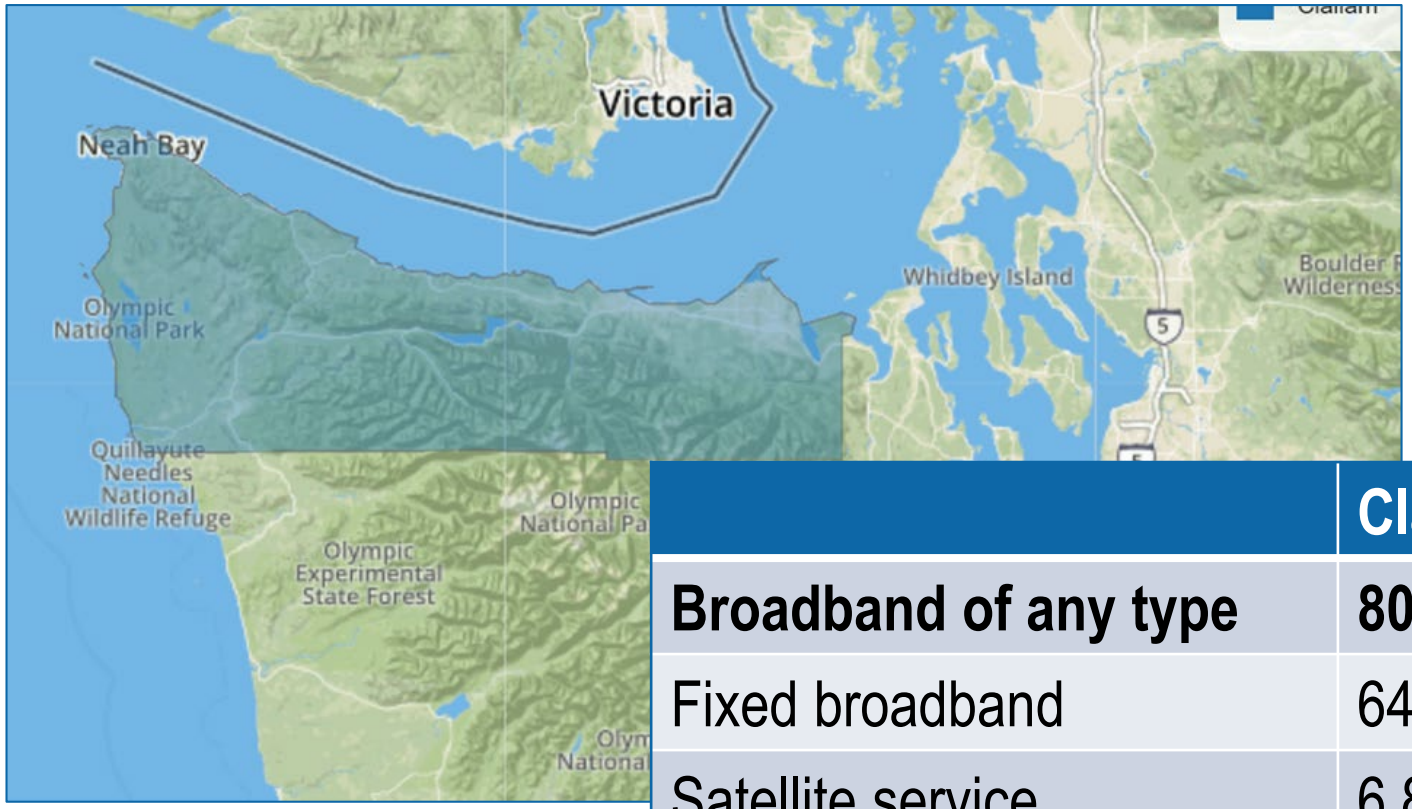
With an Internet Subscription
Without an Internet Subscription

- Dial-up only
- Broadband of any type
  - Broadband such as cable, fiber optic or DSL
  - Satellite Internet service
  - Mobile data plan
    - Mobile data plan only



factfinder.census.gov *data.census.gov*

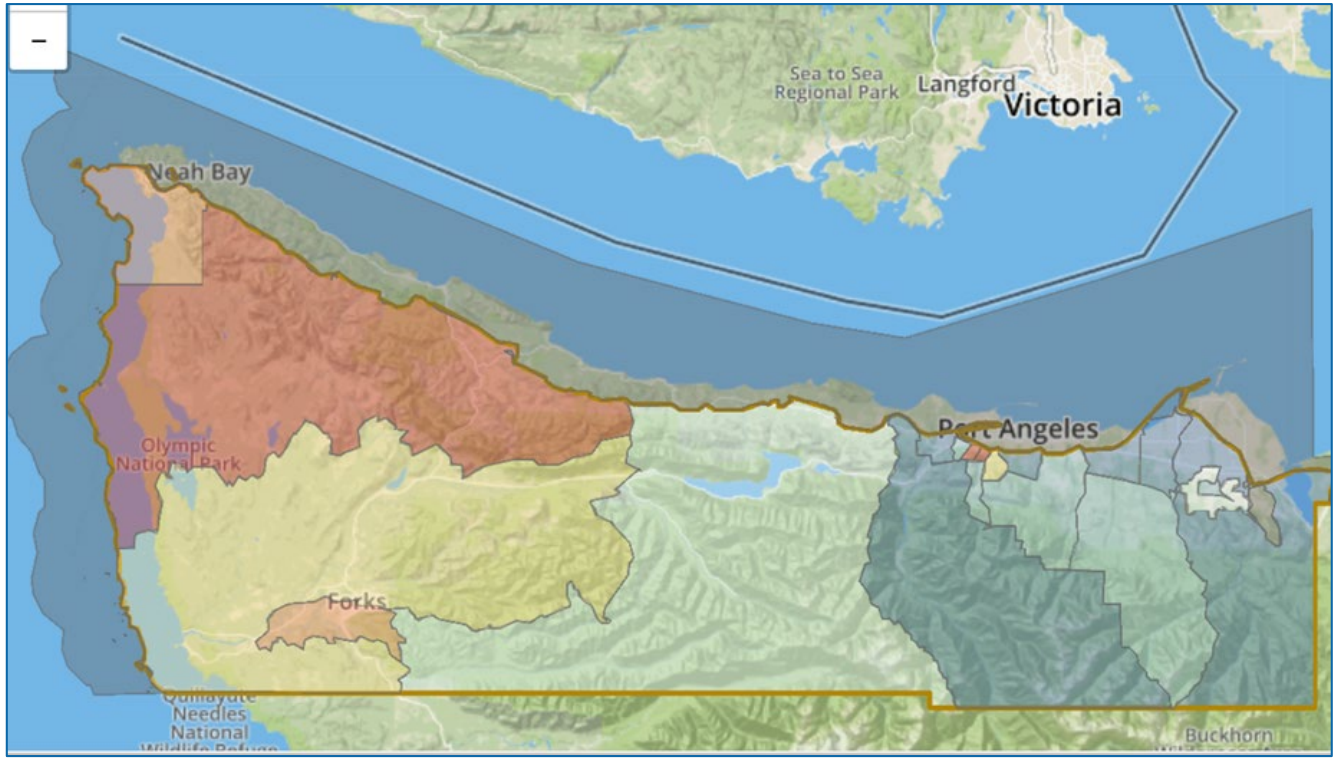
Internet Subscription in Clallam County, WA



	Clallam County	USA
Broadband of any type	**80% +/- 1.3%**	**78.1%**
Fixed broadband	64.4 +/- 1.4%	67%
Satellite service	6.8% +/- 0.7%	5.4%
Cell plan with no other data	10.7% +/- 0.1%	7.5%

ACS Internet Subscription Rates; Map courtesy of I3 Connectivity Explorer©

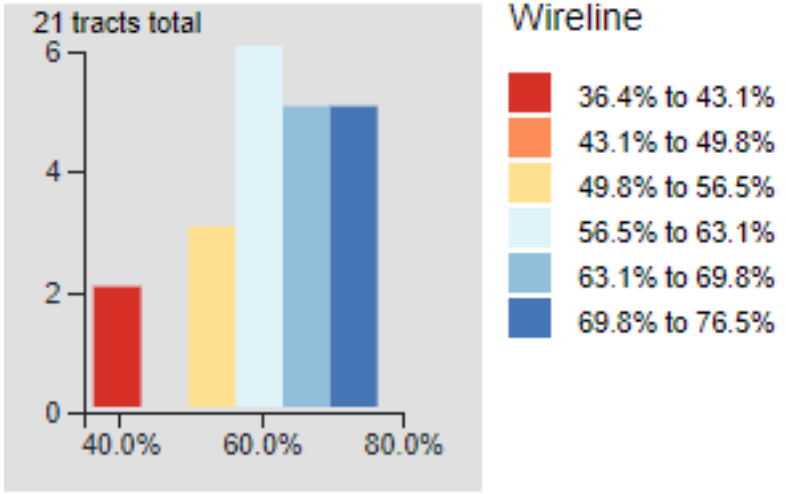
Fixed Broadband Subscription in Clallam County, WA



Census Tract Range

36.4% +/-11.1% to **76.5%** +/-7.4%

County median 64.4% +/-1.4%



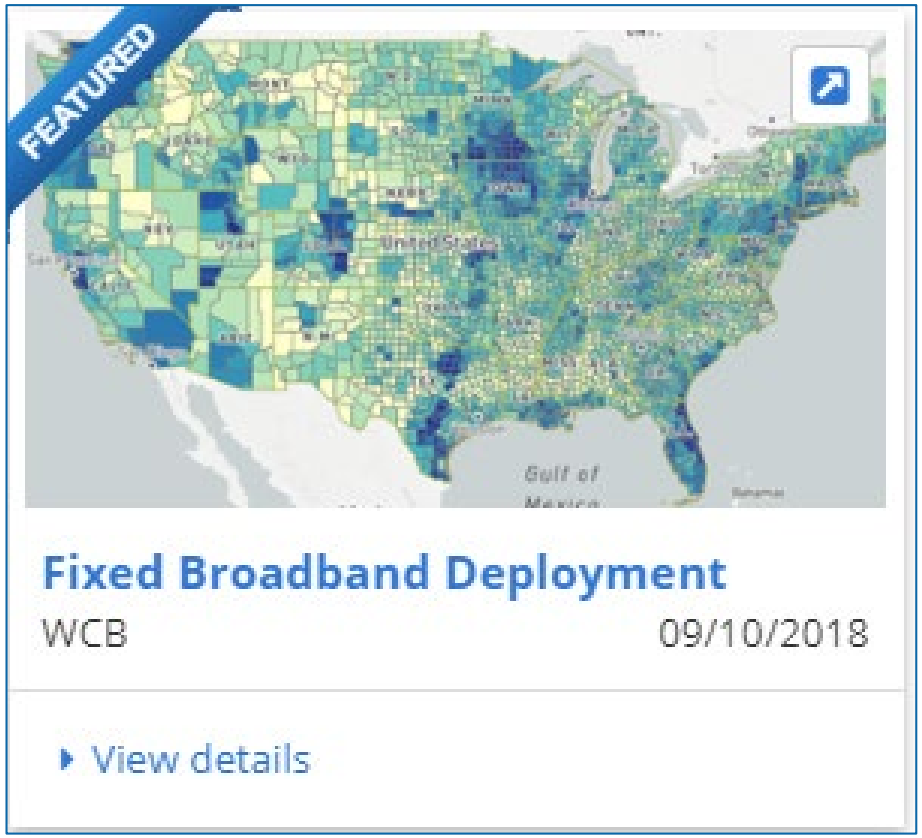
ACS Internet Subscription Rates; Map courtesy of I3 Connectivity Explorer©

ACS Questions on Device Ownership

- Has one or more types of computing devices
- No computer
  - **Desktop or laptop**
    - Desktop or laptop with no other type of computing device
  - **Smartphone**
    - Smartphone with no other type of computing device
  - **Tablet of other portable wireless computer**
    - Tablet of other portable wireless computer with no other computing device
  - Other computer
    - Other computer with no other type of computing device

https://factfinder.census.gov/

Fixed Broadband Deployment Data – Form 477

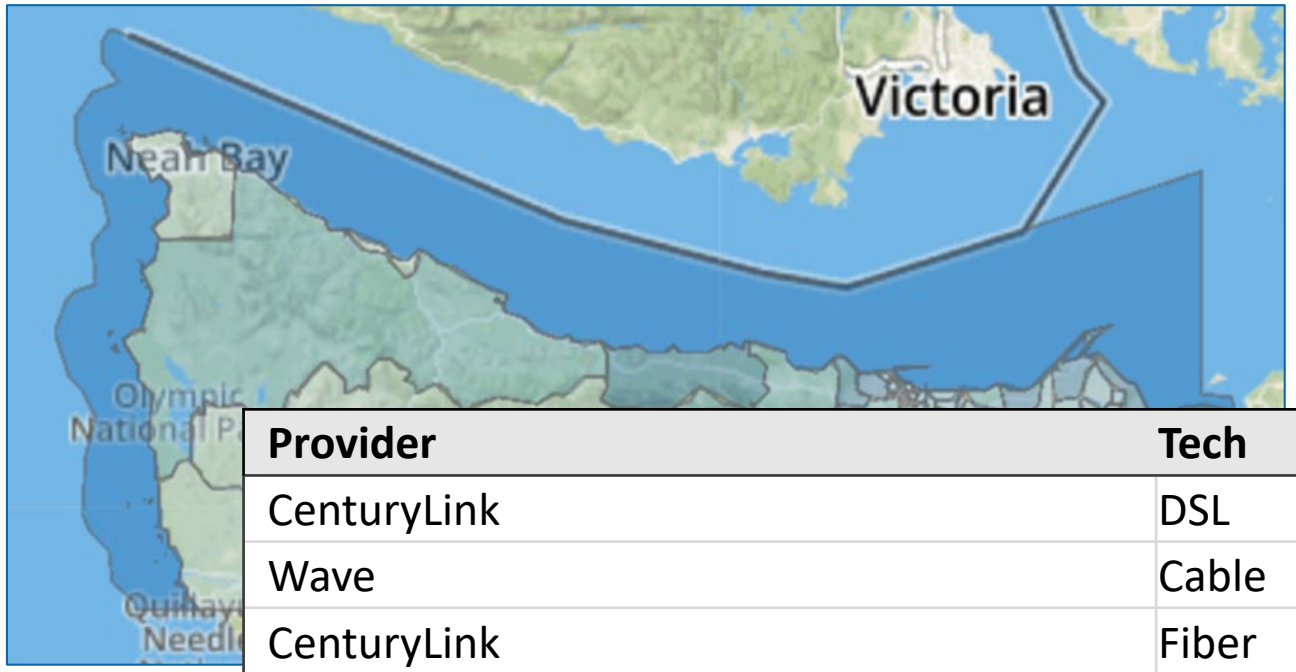


- Submitted to the FCC by ISPs
- Submitted twice a year
- Census block level data includes:
  - **Name:** Internet Service Provider
  - **Type**: Residential / Business
  - **Technology**: fiber, ADSL, fixed wireless, cable, satellite, other
  - **Speed**: Advertised upload/download

*FCC also collects mobile wireless and fixed broadband subscription data

www.fcc.gov/general/broadband-deployment-data-fcc-form-477

Clallam County - FCC Form 477 and Potential Partners



Provider	Tech	Blocks	(%)	Max ↓	Max ↑
CenturyLink	DSL	1912	55.6%	140.0 Mbps	40.0 Mbps
Wave	Cable	1305	37.95%	1.0 Gbps	10.0 Mbps
CenturyLink	Fiber	210	6.11%	1.0 Gbps	1.0 Gbps
North Olympic Peninsula Data Centers, LLC	Fixed Wireless	60	1.74%	20.0 Mbps	2.0 Mbps
CresComm WiFi LLC	Fixed Wireless	4	0.12%	23.0 Mbps	6.0 Mbps
Comcast	Cable	2	0.06%	987.0 Mbps	35.0 Mbps
PogoZone	Fixed Wireless	1	0.03%	25.0 Mbps	10.0 Mpbs

FCC Form 477 data extracted via I3 Connected Explorer©

A Tour of the I3 Connectivity Explorer

Tim O'Connell

USDA Rural Development, Innovation Center

Developed by:

Robert A. Ballance, Ph.D.

The Center for Internet as Infrastructure, LLC

ballance@internet-is-infrastructure.org

Powered by Open Source

Empowered by Open Data

Foreword

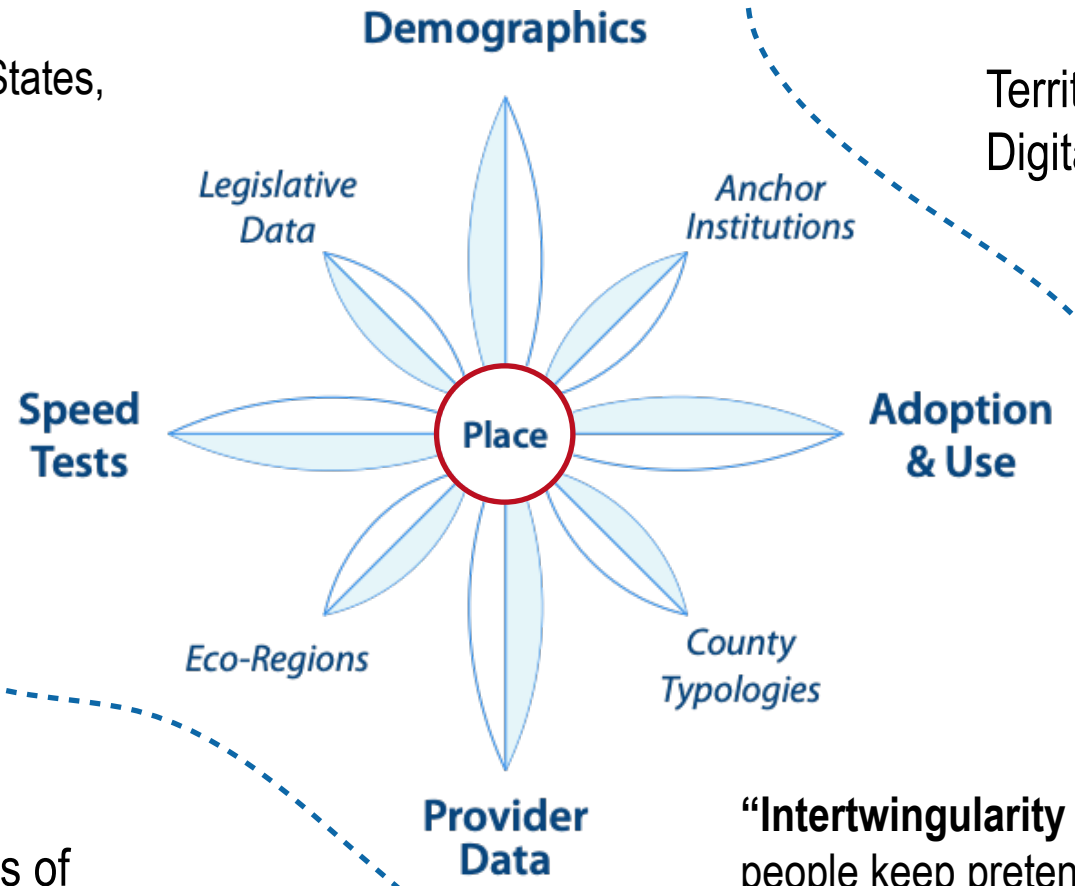
- "No one is interested in the average temperature in the US" – *Penny Pritzger, former Sec'y of Commerce*
- ***Your* local knowledge** propels the **story…**

USDA

Internet as Infrastructure

Conceptual map of broadband-related data

Place: Named City or Town; County or County Subdivision; Unified School District; Congressional District; Tribal Lands; States, DC, PR;



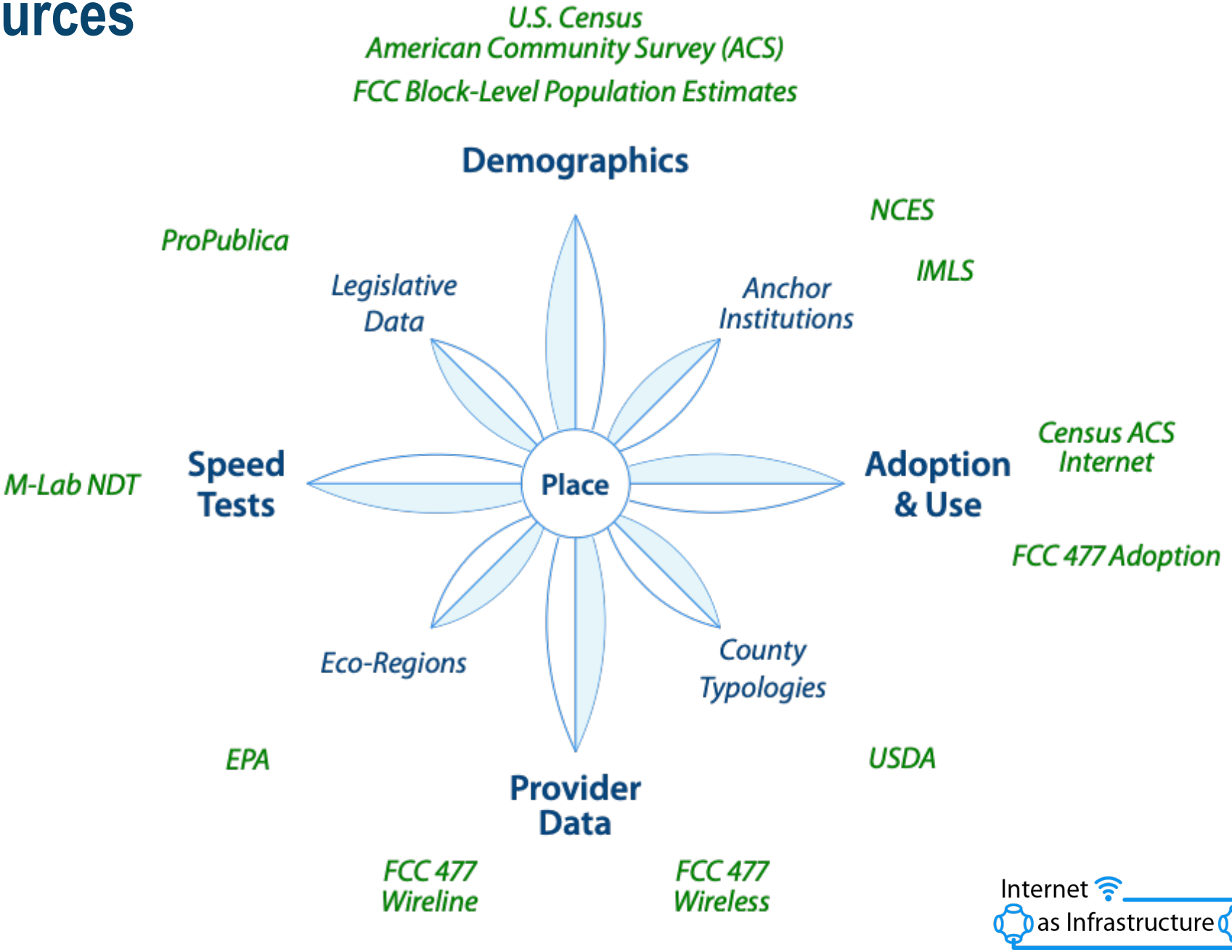
Territories of Digital Equity

Territories of Broadband Planning

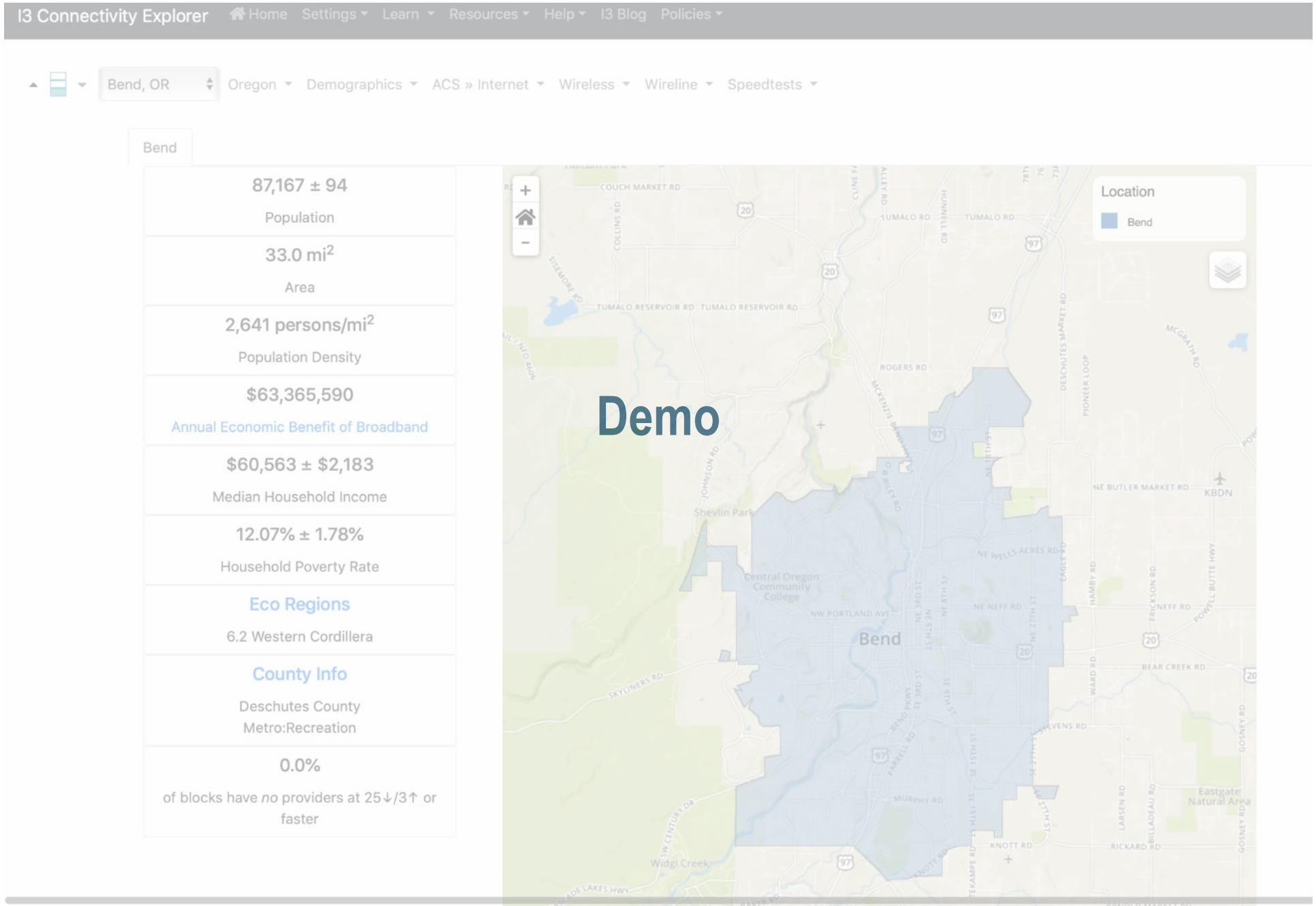
"Intertwingularity is not generally acknowledged—people keep pretending they can make things hierarchical, categorizable, and sequential when they can't." — Ted Nelson

Internet as Infrastructure

Data Sources
(08/2019)



Internet as Infrastructure


I3 Connectivity Explorer
Home
Settings
Learn
Resources
Help
I3 Blog
Policies
Bend, OR
Oregon
Demographics
ACS » Internet
Wireless
Wireline
Speedtests
Bend
87,167 ± 94
Population
33.0 mi²
Area
2,641 persons/mi²
Population Density
$63,365,590
Annual Economic Benefit of Broadband
$60,563 ± $2,183
Median Household Income
12.07% ± 1.78%
Household Poverty Rate
Eco Regions
6.2 Western Cordillera
County Info
Deschutes County
Metro:Recreation
0.0%
of blocks have no providers at 25↓/3↑ or faster
Demo
Location
Bend
Bend
Shevlin Park
Central Oregon Community College
Widgi Creek
Eastgate Natural Area
KBDN

Exploring Community Data Worksheet

- **Did you find data that will help you tell your broadband story?**
- How can you use this information to make the case for investment?

- Was there something that surprised you??
- How does your local insight complement the national data?

Links and More Information

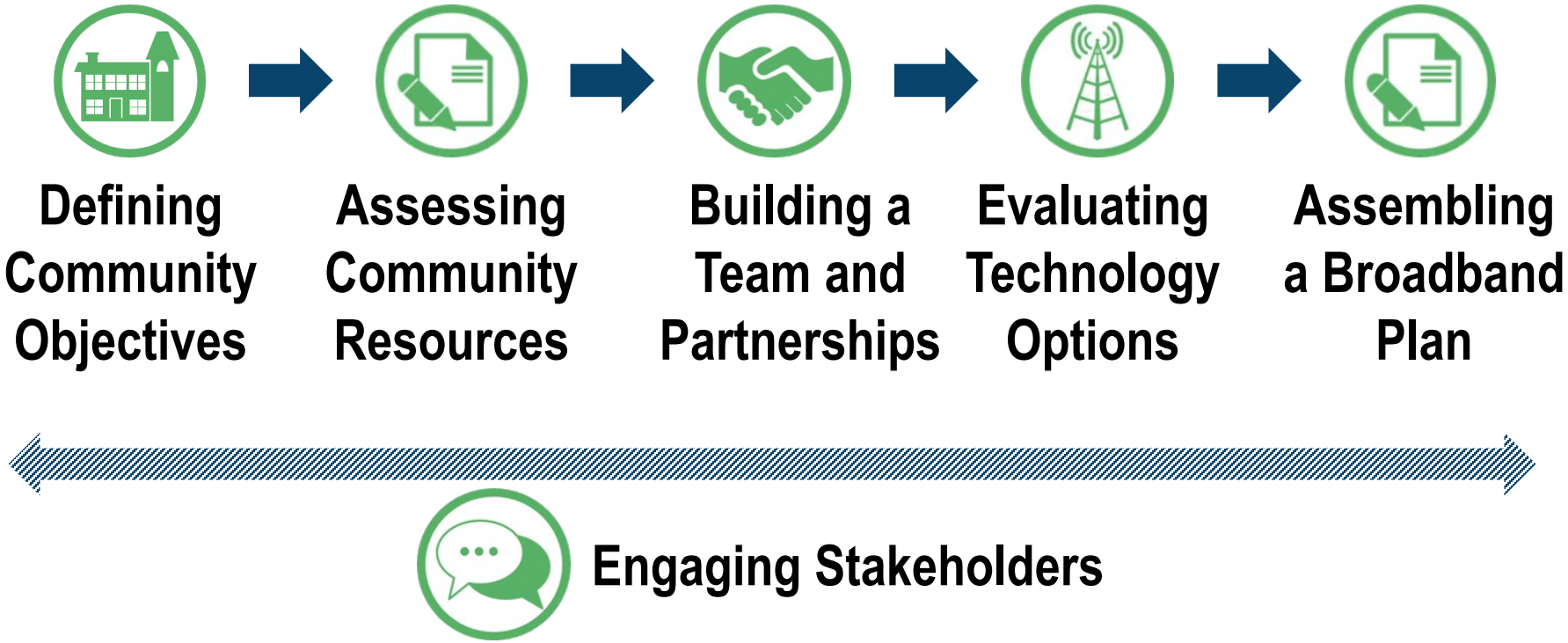
- I3 Connectivity Explorer
  https://i3cex.internet-is-infrastructure.org/sessions/new
- Jumpstart guide
  https://internet-is-infrastructure.org/download/introductory-guide/
- The Center for Internet As Infrastructure, LLC, https://internet-is-infrastructure.org/

- Measurement Lab www.measurementlab.net
  - Visualizations https://viz.measurementlab.net/
  - Speed test https://speed.measurementlab.net/#/

Internet as Infrastructure

Action Planning and Additional Resources

Community Broadband Planning Roadmap



Today Was Great Start!

How can we help?

American Broadband Initiative

The Administration's signature strategy to stimulate increased private investment in broadband infrastructure and services to fill broadband connectivity gaps in America.

Three Workstreams

1. Streamline Federal permitting
2. Leverage Federal assets
3. Maximize the impact of Federal funding

https://broadbandusa.ntia.doc.gov/ntia-resources/american-broadband-initiative

USDA

United States Department of Agriculture

www.USDA.gov/
Broadband

e-Connectivity @ USDA

Broadband Resources for Rural America

e-Connectivity Toolkit

- Highlights USDA major funding sources
- Specifies eligibility requirements
- Demonstrates how programs can be aligned to support project phases
- Highlights best practices
- Showcases innovative approaches

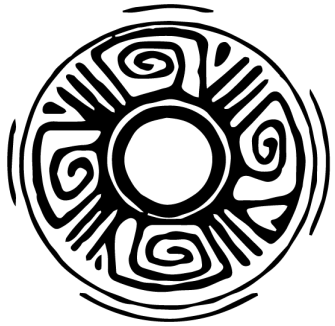
EDA - FY 2018 EDA Disaster Supplemental Notice of Funding Opportunity (FY18 Disaster Supplemental NO FO)

Program funds for disaster relief and recovery as a result of Hurricanes Harvey, Irma, and Maria, wildfires, and other calendar year 2017 natural disasters under the Stafford Act.

EDA - Public Works (PW) and Economic Adjustment Assistance (EAA)

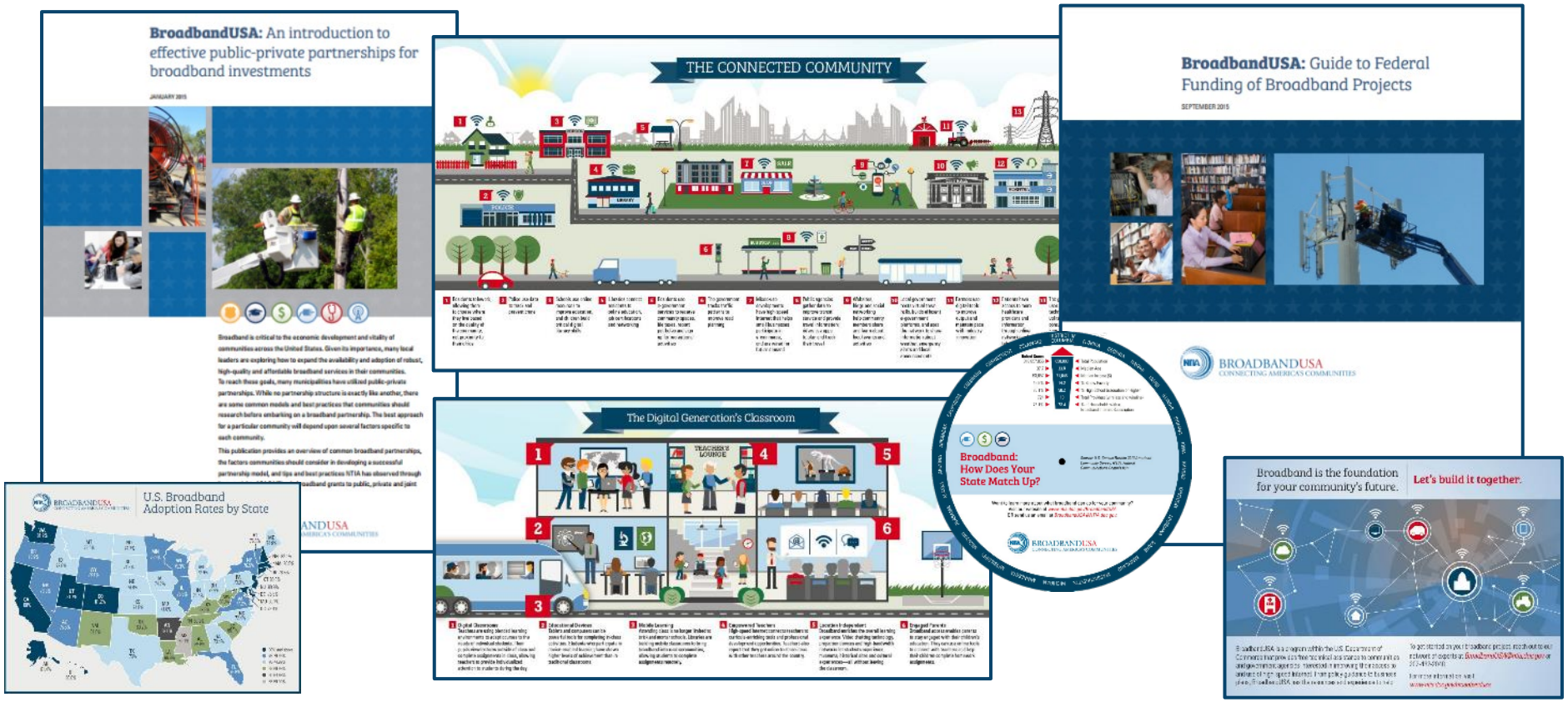
EDA's PW and EAA programs provide economically distressed communities and regions with comprehensive and flexible resources to address a wide variety of economic development needs.

Washington State Broadband Programs



WASHINGTON STATE
PUBLIC WORKS BOARD
INFRASTRUCTURE IS FUNDAMENTAL

Guides and Best Toolkits



BroadbandUSA: Technical Assistance

Planning (e.g., RFP Development/Review, Preliminary Network Design, Asset Inventory)

Funding (e.g., Partnership Facilitation, Funding Option Assessments)

Implementation (e.g., Network Design, Regulatory Approvals, Interconnection, Permitting)

90% of TA requests involve broadband planning and
62% involve questions related to funding

BroadbandUSA Webinars

- September 2019 Webinar: **Measuring the Economic Impact of Broadband**
- September 18th at 11 AM PT
- https://broadbandusa.ntia.doc.gov/webinar_190918#contententarea
- October 16th webinar: **How Broadband is Revitalizing Main Street**

BroadbandUSA Monthly Newsletter

- broadbandusa@ntia.gov
- http://www.broadbandusa.ntia.doc.gov

Your Next Step…

Did you meet someone or learn something today that you can take action on to improve broadband connectivity in your community?

- What is it?
- Who will you engage?
- What is the next step?
- When will it happen?

Thank you!!

- Kirk Pearson, United States Department of Agriculture Washington State Director

- John Flanagan Policy Advisor, Transportation and Economic Development, Governor’s Office