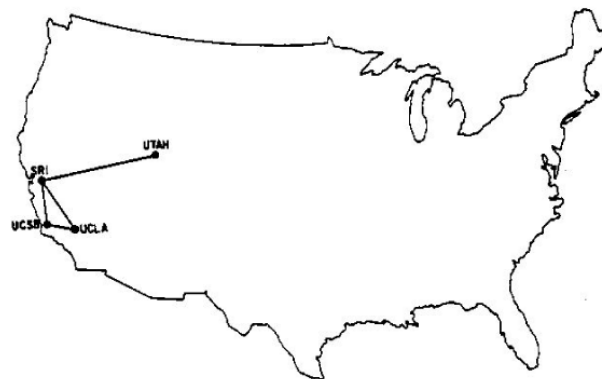


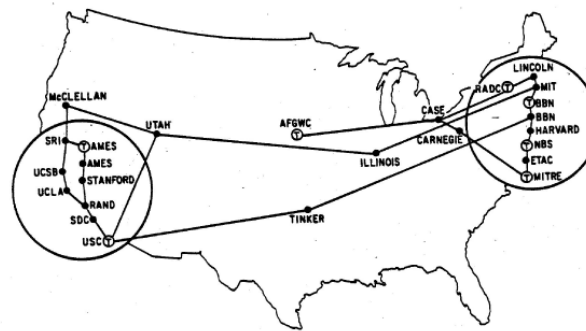
Where it Started



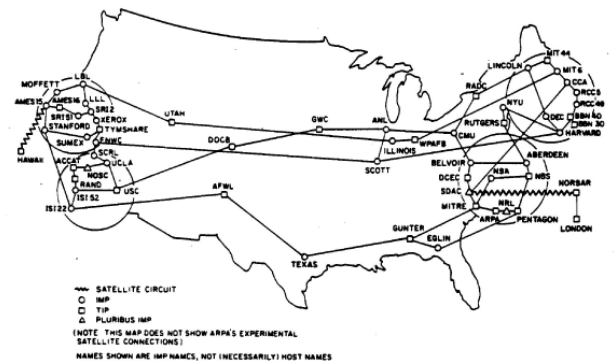
1969



1970



1972



1977



And NOW? IoT is here.

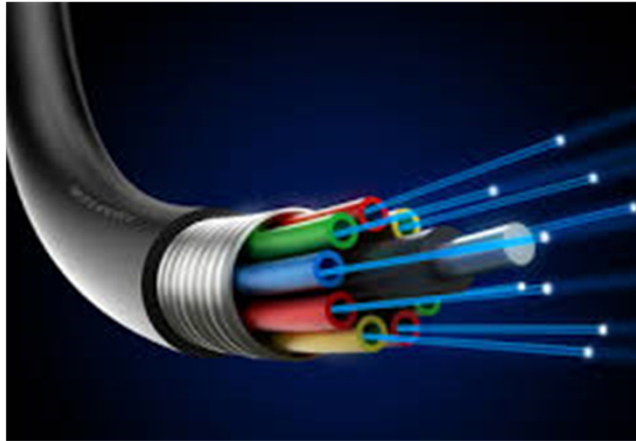
We are using
more.
LOTS MORE.
That is only
going to
increase.

- World Wide Users:
- 12/1995 – 16 M 3/2019 – 4,346M (up 33M since 12/ 2018)
- Average monthly data use for households grew from:
 - **2017: 201.6 gigabytes**
 - **2019: 275 gigabytes (cord cutters 520GB)**
 - **21% growth rate per year. Double the demand in 4 years.**
 - **EVERYBODY NEEDS ACCESS TO A GIG(bit)**

What we know: All Mainers need to Connect@home



Broadband is a
necessity

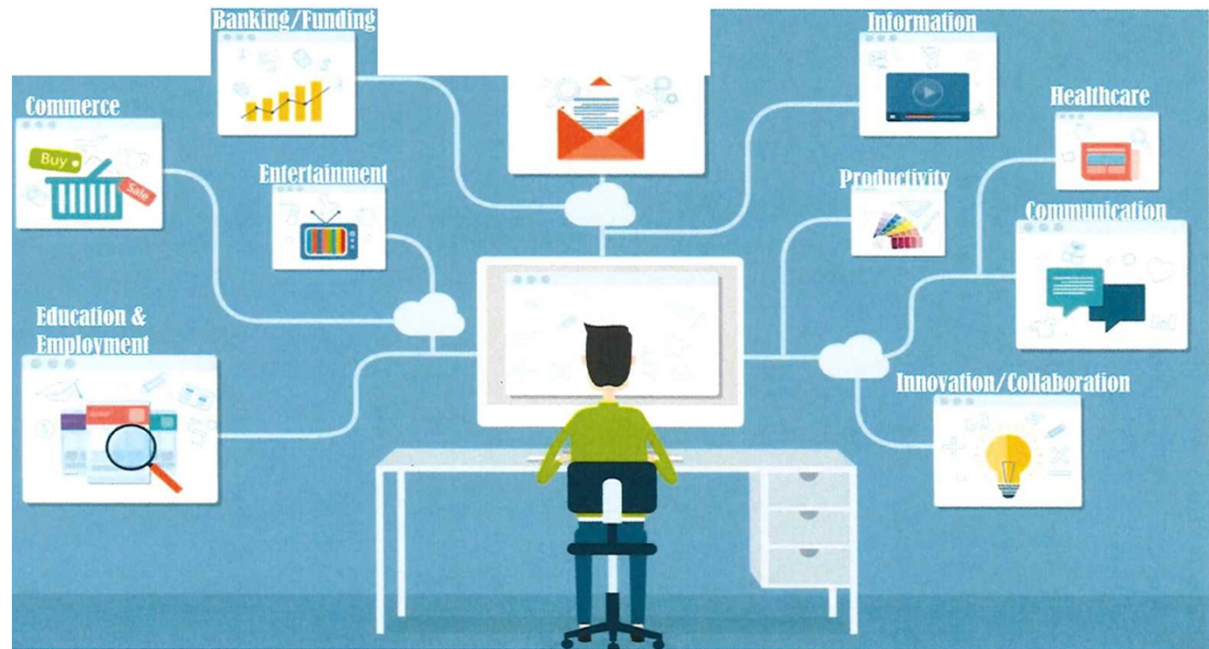


The technology is easy



Broadband drives economic
growth and is key to
attracting population and
workforce

Digital Age
Makes
Possible:



Work@home: 21st Century Economic Development

50% of US workforce hold
jobs that are compatible
with Telework

- Teleworkers can save \$4000 per year by not commuting
- Companies can save \$2000 a year per employee
- Increased productivity and reduces turn over
- Environmental savings from less transportation, smaller building, less heat and air conditioning.



Significant Changes in workforce are here

- Up to 54 million workers in the US (one-third of workers) in 2030 may need to switch occupational categories
- Google, Apple and 12 other companies no longer require a B.A
- 82% of middle-skill jobs require digital skill, and increase of 4% since 2015 (46% of all jobs)

sources: [McKinsey Global Institute](#) (2017)
[Capital One](#); [Burning Glass](#), and [Glass Door](#)



Learn@home
Leveling the
playing field for
all students

- 18% (nearly 3 million) of U.S. students have no home internet access.
- 17% lack access to home computers.
- COST and ability to actually connect are critical factors.
- Adult learners need access too.

“If we want every student to have a fair shot at digital age success, we must ensure that no student is left offline.” Federal Communications Commissioner Jessica Rosenworcel



Source:
Education Week

Stay
Healthy@home
Most significant
innovation in
modern Health care
Mobile health is a
\$23B industry,
expected to grow to
\$102B by 2022.



Monitoring



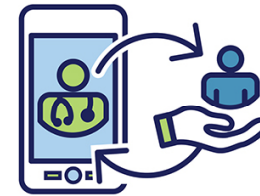
Chat



Diagnose



EKG



Remote
Medicine



Interactivity



App Software



P2P



Patient

Universal Broadband can save the planet

- ▶ A 2014 CA study showed that :
- ▶ From power and transportation to health care, agriculture, and buildings, broadband-enabled applications such as telehealth, telework, precision agriculture, grid optimization, and e-government offer the potential to reduce projected emissions by **over nine gigatons of carbon dioxide equivalent (GtCO₂e) by 2020**, or **approximately 16.5 percent of total global emissions**.



MAINE HOUSEHOLD DATA 25/3 MBPS			
County	Total households	Households with less than 25/3 Mbps	% of households with less than 25/3 Mbps
Maine	722,106	83,144	11.5
Piscataquis	7,572	5,826	76.94
Franklin	11,684	6,196	53.03
Hancock	23,748	8,290	34.91
Waldo	16,820	5,395	32.07
Washington	14,065	4,399	31.28
Oxford	20,723	5,498	26.53
Somerset	21,376	4,917	23.00
Aroostook	29,852	5,080	17.02
Lincoln	15,021	1,385	9.22
Penobscot	61,787	5,461	8.84
Sagadahoc	15,613	1,366	8.75
Knox	16,813	1,276	7.59
Kennebec	50,829	1,047	2.06
York	82,588	972	1.18
Cumberland	117,871	1,068	0.91
Androscoggin	44,747	318	0.71

- Dramatic gap between rural and urban counties
- Developed using FCC Form 477 data which assumes that if one address in a census block is covered the entire block is covered so the availability is overstated.
- Information is accurate from a directional perspective and is aligned to what the FCC will use to make their decisions.

CONNECTME

- Androscoggin
- Aroostook
- Cumberland
- Franklin
- Hancock
- Kennebec
- Knox
- Lincoln
- Oxford
- Penobscot
- Piscataquis
- Sagadahoc
- Somerset
- Waldo
- Washington
- York

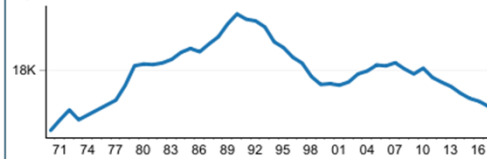
Piscataquis County



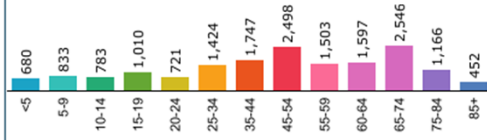
2017 Median Household Income



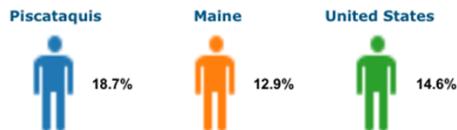
Population



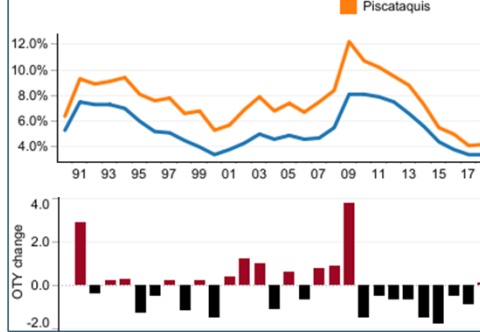
2017 Population by Age



2017 Poverty Rates



Annual Unemployment Rates



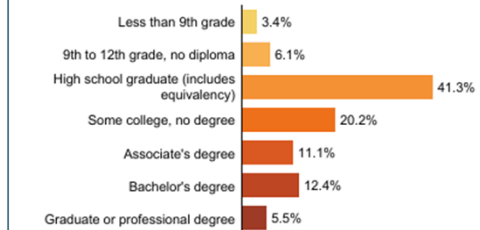
Average Private Employment, Total All Industries



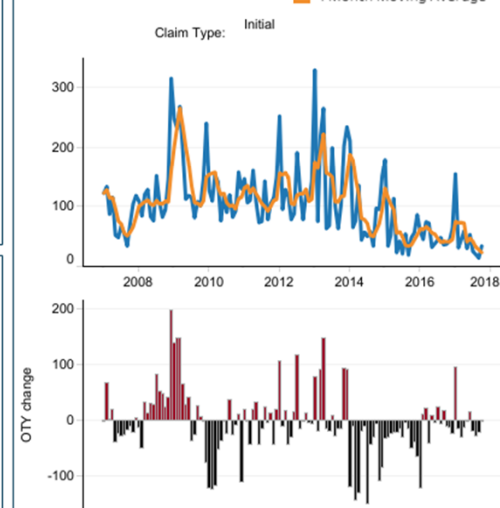
2017 Average Annual Covered Private Employment by Major Industry



Educational Attainment Age 25+ in 2017

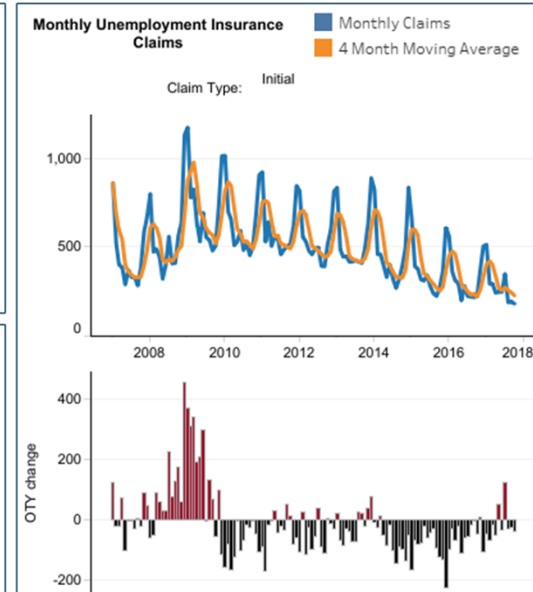
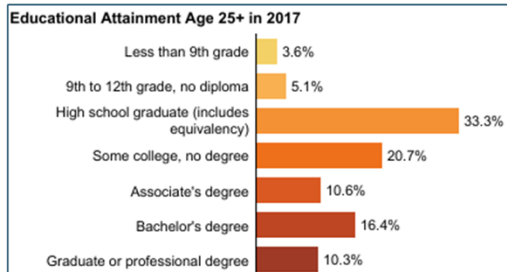
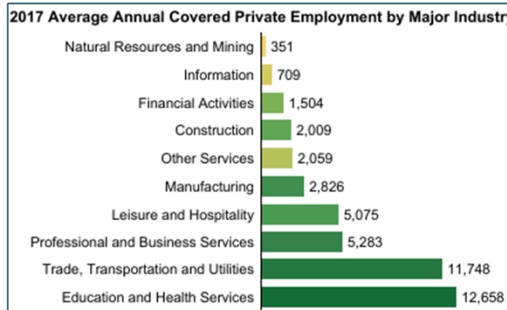
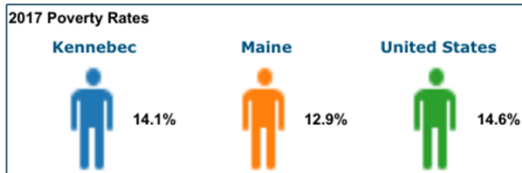
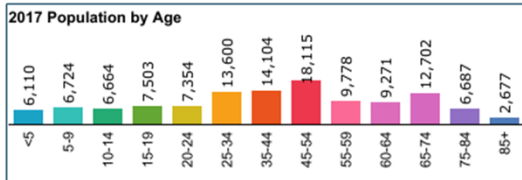
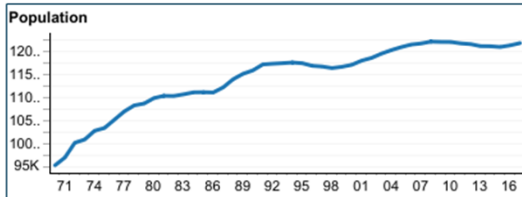
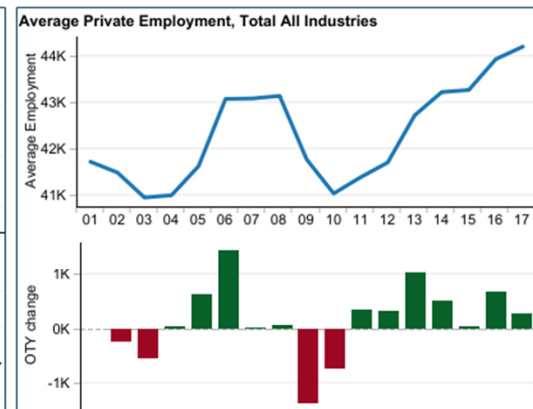
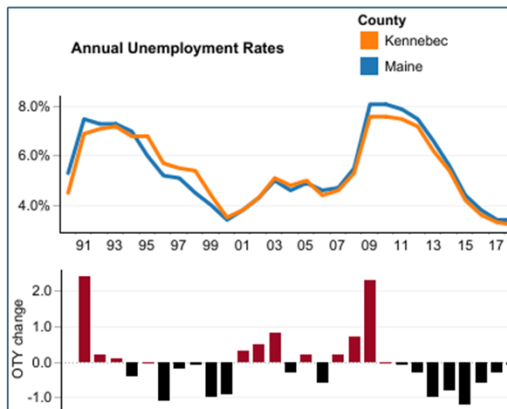


Monthly Unemployment Insurance Claims



- Androscoggin
- Aroostook
- Cumberland
- Franklin
- Hancock
- Kennebec
- Knox
- Lincoln
- Oxford
- Penobscot
- Piscataquis
- Sagadahoc
- Somerset
- Waldo
- Washington
- York

Kennebec County

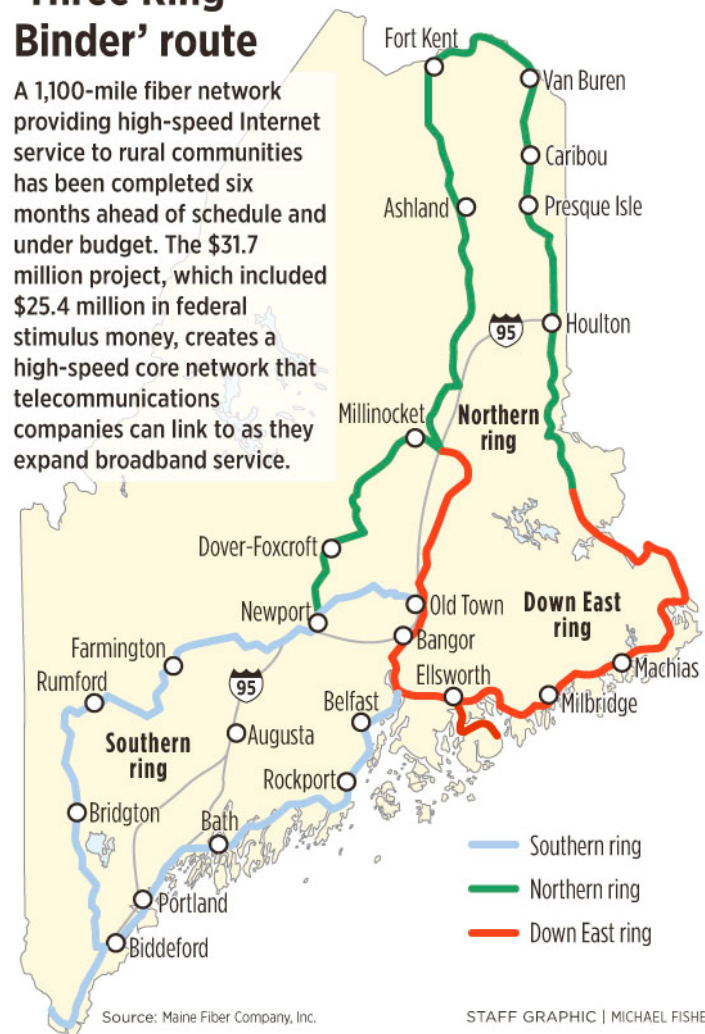


Maine Assets

- 3 Ring Binder
- Maine School Library Network
- Great Local providers/Vendors
- Maine Broadband Coalition ☺
- ConnectMaine ☺
 - Community Planning
 - Infrastructure
- Momentum

'Three Ring Binder' route

A 1,100-mile fiber network providing high-speed Internet service to rural communities has been completed six months ahead of schedule and under budget. The \$31.7 million project, which included \$25.4 million in federal stimulus money, creates a high-speed core network that telecommunications companies can link to as they expand broadband service.



Funding:
Where we are
right now.

State Funding: ConnectME Fund/ Potential Bond Funding

FCC RDOF (\$20.4 Billion) and Connected Care pilots

USDA ReConnect and RUS Loan programs

Foundations and other potential investors

CMP Power line

Success Stories

Islesboro, South Portland, Cambridge, Alton, Rockport,
Down East Broadband Utility

Community Planning efforts taking root: Oxford,
Franklin, Piscataquis, Blue Hill, 3Bridged Islands

Community planning success – Bowdoinham,
Monhegan

Federal Funding Successes: Sanford, Cranberry Isles,
Alton, ReConnect Awardees

Challenges – its all work. Its time intensive. It requires
partnerships – regionally and with private partners.

By 2025:
95% of Maine's
homes and
businesses will have
access to affordable,
reliable, fixed and
mobile broadband
that is on par with
New England's largest
cities.

Build stronger community partnerships.

Counties can be “anchor tenants” to push out connectivity

Counties can be an organizing and funding partner

How we build this stuff is important, easily upgradeable networks

Expand the understand of the potential of broadband

Can't do it without subsidies – Help advocate for funding

Smart Counties: Using the internet to improve services

Data management. Gathering, using, analyzing data to measure and improve services

Using technology and Innovation –learning from others. (NIHS)

Improve internal management systems.

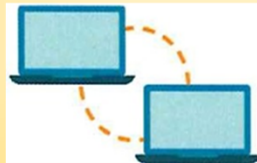
Connect with citizens – Amber alerts, traffic management, Emergency Management

Better ENGAGE citizens in the work of Government

High Speed connectivity disrupts the role that location traditionally plays in the economy.

Broadband as an economic tool is cheap
(\$30K per mile vs road or rail)

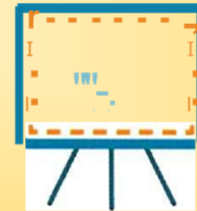
- \$47 B per year to GDP
- 360,000 jobs in the next three years
- 4:1 ROI on investment



Increase Connections in
Rural Maine



Increase the talent pipeline of candidates
trained in digital skills (cloud, digital
marketing)



Increase adoption of digital training and
digital tools by rural small businesses so they
can scale their operations

CONNECTMAINE

Maine.gov/connectme/

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