

# Demystifying Broadband Basics and Funding Digital Opportunity

January 10, 2024



TEXAS BROADBAND  
DEVELOPMENT OFFICE



INSTITUTE FOR  
Local Self-Reliance



# Agenda



- Welcome and Introductions
- Overview of Broadband Basics
- Broadband Infrastructure in Texas
- Key Funding Components in the Texas Digital Opportunity Plan (TDOP)
- NTIA Measurable Objectives and Texas Goals

# Digital Opportunity Framework

## The 3 l(A)yers



# AVAILABILITY

## Infrastructure

- Do the **physical networks** exist to deliver **high quality Internet service**?
- Quality: **speed/reliability/competition**
- Infrastructure funds (**BEAD/BOOT**) goes **hand in hand with (DEA/TDOP)**



US Department of Agriculture, USDA media Jay Pinsky

# NEED TO KNOW: BROADBAND INFRASTRUCTURE BASICS

## Wired Technology

- DSL
- Cable
- Fiber



Photo: Brett Sayles, Creative Commons, free stock photo

## Wireless Technology

- (Still mostly wired)
- Fixed (FWA)
- Mobile
  - 4G LTE and 5G
- Wi-Fi
- Satellite
  - Geostationary
  - Low Earth Orbit



Photo: Public Domain Mark 1.0 Universal

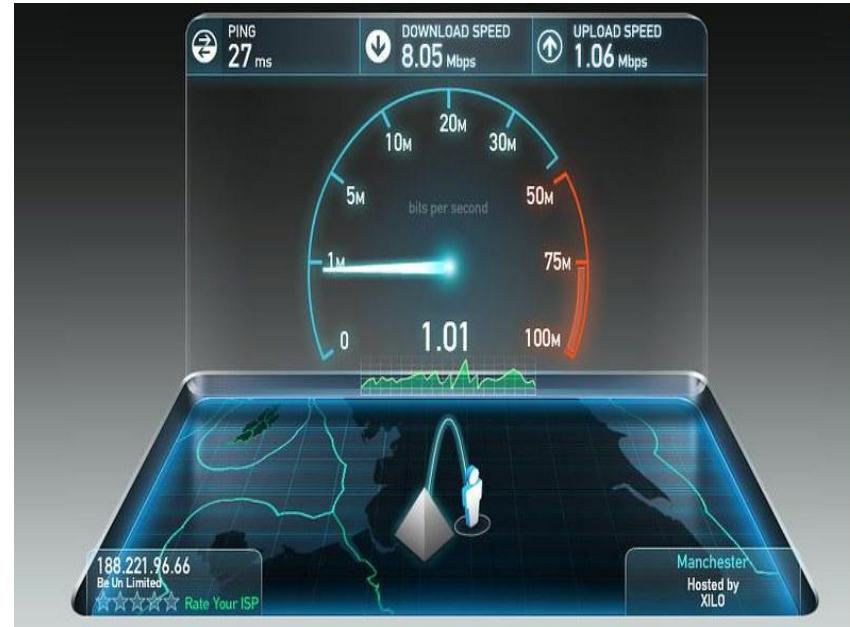
# NEED FOR SPEED

## BEAD/BOOT

- **Unserved:** less than 25/3 Mbps
- **Underserved:** between 25/3 Mbps and 100/20 Mbps

### Advertised vs Actual Speeds

- Fed gov measures what is **advertised, not what end users actually get**
- BEAD/BOOT prioritize areas based on **advertised speeds**
- No one knows. We don't have a good data set



Graphic: Dunk, Creative Commons, Attribution 2.0 Generic

# AFFORDABILITY



## Texas Digital Opportunity Plan

- “If you build it, he will come.” - *Field of Dreams*
- TDOP is a field of digital opportunity dreams that needs to be grounded in reality. Just building broadband infrastructure does not guarantee they will come
- TDOP focuses on **everything but the wires**
- **Biggest barrier** is affordability - “if it’s not affordable, it’s not accessible.”
- (Diminishing?) Role of ACP



# ADOPTION: COMMON BARRIERS TO DIGITAL OPPORTUNITY

Because people face the below barriers when it comes to broadband infrastructure and quality, we will review broadband basics to help demystify how the internet works and understand how TDOP fits alongside BDO's infrastructure development efforts through BEAD.

01

**Lack of nearby infrastructure**

- BEAD/BOOT (other federal programs)
- Springboard for adoption/digital opportunity

02

**Affordability**

- Both rural and urban (ACP)

03

**Digital Skills/Confidence**

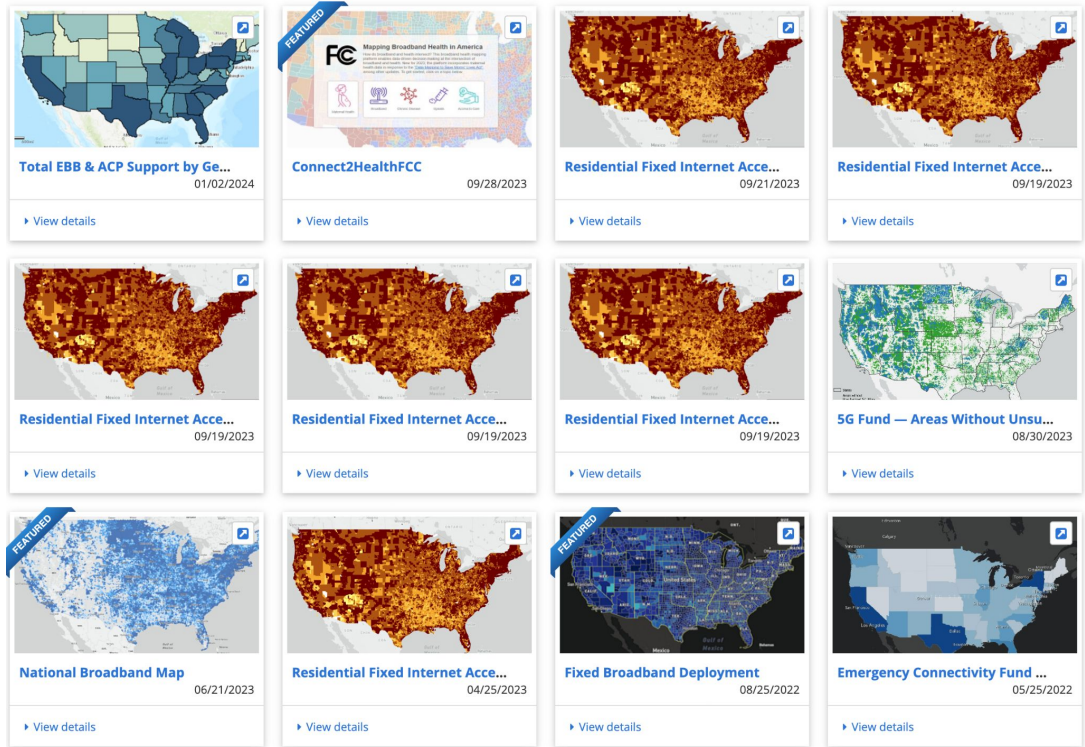
- Training
- Privacy/cybersecurity
- Language/cultural-specific framework



*Photo: Lauren Proffitt, Creative Commons Attribution 2.0 Generic*



# What is Broadband Infrastructure in Texas?



1. It's the current state of broadband coverage in Texas
2. The access disparities across rural and urban areas
3. Challenges and opportunities for expansion of solutions and programs

Source: <https://www.fcc.gov/reports-research/maps/>

# The Texas Digital Opportunity Plan's 5 Goals

BDO has set five Texas goals that align with NTIA's measurable objective categories:

<b>NTIA Measurable Objectives</b>	<b>Goals</b>
<b>Broadband Availability and Affordability</b>	All Texans have access to reliable, affordable internet service at home.
<b>Device Availability and Affordability and Technical Support</b>	All Texans have access to affordable computers and other internet-enabled devices in their home, with corresponding technical support services.
<b>Digital Literacy</b>	All Texans have a broad foundation of digital literacy skills and access to a continuum of digital skills development programs.
<b>Online Privacy and Cybersecurity</b>	All Texans feel safe online and are familiar with cybersecurity and online privacy measures.
<b>Online Accessibility and Inclusivity of Public Resources</b>	All Texans can utilize the internet for public resources and services.

# IMPACT ASSESSMENT OF TDOP

- What is a Key Performance Indicator (KPI)?
  - Quantifiable measure of performance over time for a specific objective.
- Each KPI relates to one or multiple of the four core strategies outlined in the TDOP.
- Image on right from **Page 48** of TDOP

Key Performance Indicator (KPI)	Baseline (See Appendix B for a version of this table with covered population data)	Target	Implementation Strategies (See activity details in Ch 5)
<b>NTIA Measurable Objective Category 1: Broadband Availability and Affordability</b>			
<b>Texas Goal 1: Expand adoption of reliable, affordable broadband internet service at home for all Texans.</b>			
1.1 Increase the percentage of Texans with reliable broadband subscriptions available in their homes.	68% of Texas households subscribe to broadband internet. <sup>1</sup>	80% by 2030	<b>Strategy 1:</b> Partner with and fund statewide organizations. <b>Strategy 2:</b> Fund local partners <b>Strategy 3:</b> Promote internet adoption
1.2 Decrease the percentage of individuals who cite cost as a barrier to home internet service.	59% of respondents who are not connected state that home internet services are too expensive. <sup>2</sup>	50% by 2030	<b>Strategy 3:</b> Promote internet adoption
1.3 Increase the percentage of Texans who are aware of and enrolled in ACP and/or other low-cost or subsidized internet service options.	38% of eligible households enrolled in the ACP. <sup>3</sup> 40% of 2023 Digital Opportunity Survey respondents have heard about ACP. <sup>2</sup>	60% enrolled by 2030	<b>Strategy 3:</b> Promote internet adoption

# IMPACT ASSESSMENT OF TDOP

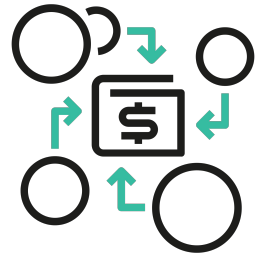
How the BDO will measure effectiveness, impact, and progress?

- Within each Digital Opportunity Goal, the BDO has developed multiple KPIs that will guide our program effectiveness over the coming years.
- Image on right from **Page 48** of TDOP

Key Performance Indicator (KPI)	Baseline (See Appendix B for a version of this table with covered population data)	Target	Implementation Strategies (See activity details in Ch 5)
<b>NTIA Measurable Objective Category 1: Broadband Availability and Affordability</b>			
<b>Texas Goal 1: Expand adoption of reliable, affordable broadband internet service at home for all Texans.</b>			
1.1 Increase the percentage of Texans with reliable broadband subscriptions available in their homes.	68% of Texas households subscribe to broadband internet. <sup>1</sup>	80% by 2030	<b>Strategy 1:</b> Partner with and fund statewide organizations <b>Strategy 2:</b> Fund local partners <b>Strategy 3:</b> Promote internet adoption
1.2 Decrease the percentage of individuals who cite cost as a barrier to home internet service.	59% of respondents who are not connected state that home internet services are too expensive. <sup>2</sup>	50% by 2030	<b>Strategy 3:</b> Promote internet adoption
1.3 Increase the percentage of Texans who are aware of and enrolled in ACP and/or other low-cost or subsidized internet service options.	38% of eligible households enrolled in the ACP. <sup>3</sup> 40% of 2023 Digital Opportunity Survey respondents have heard about ACP. <sup>2</sup>	60% enrolled by 2030	<b>Strategy 3:</b> Promote internet adoption

# Key Components About Funding in the Texas Digital Opportunity Plan (TDOP)

- Understanding TDOP Funding Sources
- Federal, State, and Local Funding Initiatives
- Public-Private Partnerships to Funding Digital Inclusion Investments



# Tips to Consider: Funding Implementation and Roadmap

BDO anticipates funding the following four primary strategies to address these needs and other barriers identified in the plan and to realize its goals.

Note: This may change based on public comment feedback.

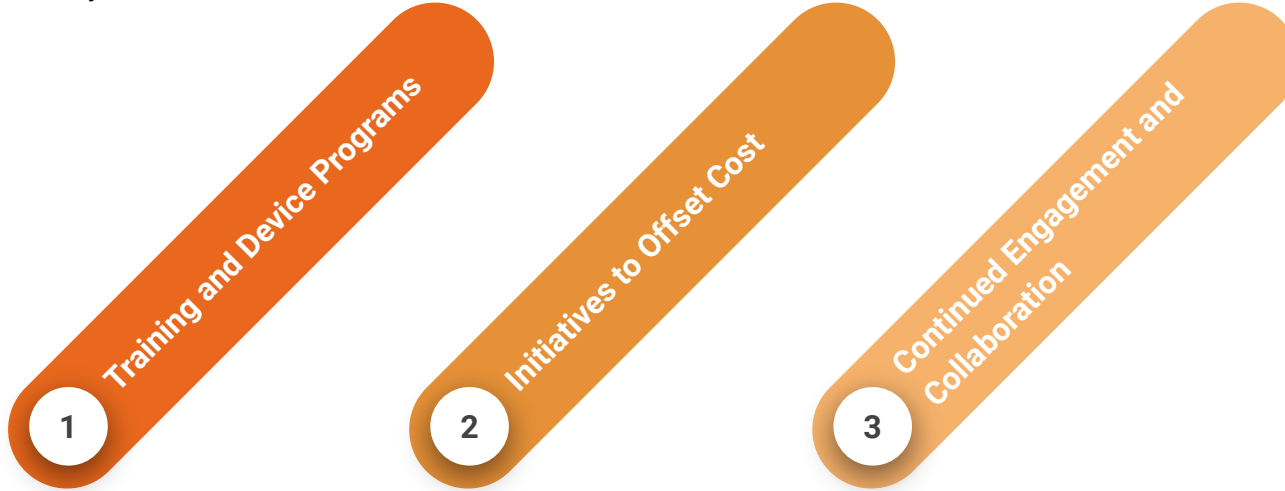
1. Partner with and Fund Statewide Organizations
2. Fund Local Partners
3. Promote Internet Adoption
4. Maintain a Living Digital Opportunity Plan

# Overview of Funding through TDOP Capacity Grants

- An overview of the Capacity Grant funding structure
  - Guidelines are TBD
  - NTIA anticipates releasing their NOFO to the state in Q2 2024
    - From there, states will build their grant programs

# CONCEPTS THAT CAN BE FUNDED BY TDOP CAPACITY GRANTS

— — —  
Watch for announcements on BDO's grants programs later in the year





# The How-To: Strategies for Leveraging Funding in the Meantime



- Leveraging Funding for Digital Opportunity Initiatives
- Partnering with Statewide Networks and Local Organizations
  - Forming cohorts or focus groups
  - ACP transition working groups
- Consider partnering with entities that are doing Digital Opportunity work but may not realize it
  - Lots of organizations working with Covered Populations offer internet and device support but do not realize that there are resources available

# What is a Digital Opportunity Ecosystem?

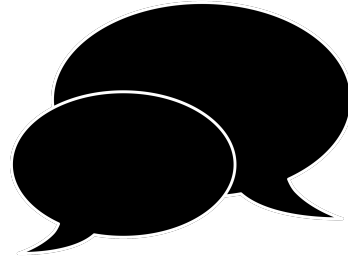
---

A combination of programs and policies that meet a geographic community's unique and diverse needs.

Coordinating entities work together in an ecosystem to address all aspects of the digital divide, including affordable broadband, devices, and skills.



# Digital Opportunity Ecosystem Success Stories Part 1



- — —
- ✓ Existence of programs and policies addressing all aspects of the digital divide
  - ✓ Affordable and subsidized broadband service options that meet the community's needs
  - ✓ Affordable and subsidized device ownership programs that meet the community's needs
  - ✓ Multilingual digital literacy and digital skill trainings that meet the community's needs
  - ✓ Hardware and software technical support
  - ✓ Digital navigation services to guide residents to the above services
  - ✓ Collaboration: Entities providing local digital inclusion services, policymakers, advocates, social service providers and community leaders co-create solutions in partnership with the community.

# Digital Opportunity Ecosystem Success Stories Part 2

---

- Successful Digital Opportunity Initiatives
  - Inspiration and learning
- Different Funding Models
  - Upgrading our understanding of what's possible



# Practical Application



## Group Discussion:

- Broadband Basics AMA with Sean Gonsalves
- Funding and Field-facing Challenges and Roadblocks with DeAnne Cuellar

# Q&A Session



Please submit your questions in the chat box

After this event concludes, please visit [www.broadbandfortexas.com/tdop](http://www.broadbandfortexas.com/tdop) to download the Texas Digital Opportunity Plan.

# Thank You

If you have any questions about the draft TDOP, please email [digital.opportunity@cpa.texas.gov](mailto:digital.opportunity@cpa.texas.gov).

Please link to this [page](#) to download and read the TDOP.

## **Office Hours**

- Mondays, 1:00 - 3:00 p.m.
- Thursdays, 10:00 a.m. - 12:00 p.m.