

Governor Hutchinson's Arkansas State Broadband Plan

Dr. Nathan Smith, Economic Policy Director
Arkansas Development Finance Authority,
Economic Policy Division

June 5, 2019

USDA ReConnect and the State Broadband Plan

- Origins of the Plan
 - The USDA ReConnect program allocates \$600 million for rural broadband on a competitive basis
 - Applicants from states which have a State Broadband Plan get +10 points on their applications.
- We are aware of several internet service providers (ISPs) that will be applying for USDA ReConnect money
- Consultations with stakeholders included:
 - ISPs
 - State agencies
 - Civil society groups like the Farm Bureau and the Rural Electric Cooperative Consortium
- ADFA and DIS took the lead in coordinating inputs and compiling the report

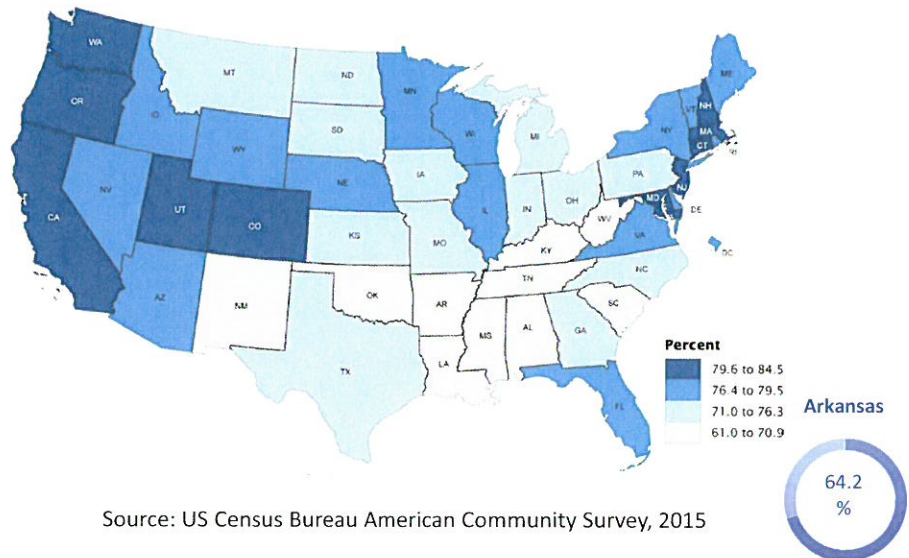
Stating the Problem

- Broadband connectivity is increasingly indispensable to modern quality of life
 - News
 - Social interactions
 - Shopping, job search, and economic development
 - Entertainment
 - Health
 - Education
 - Telecommuting
 - Public safety
 - Citizenship
- Yet many Arkansans lack even access to low-latency, high-bandwidth internet service
 - “Access” means that an internet service provider (ISP) is offering internet service
 - “The digital divide”

The Digital Divide in Arkansas

- BroadbandNow.com estimates:
 - 136 ISPs in Arkansas
 - 251,000 people do not have any wired internet providers available where they live
 - These people still have access to satellite and in some cases fixed wireless service
 - 641,000 people lack access to wired internet connection capable of 25 Mbps download speed (“broadband” as currently defined by the FCC)
 - Arguably, most uses of the internet don’t require 25 Mbps
 - 721,000 people have access to only one wired internet provider, with no options to switch
 - **50th most connected state**

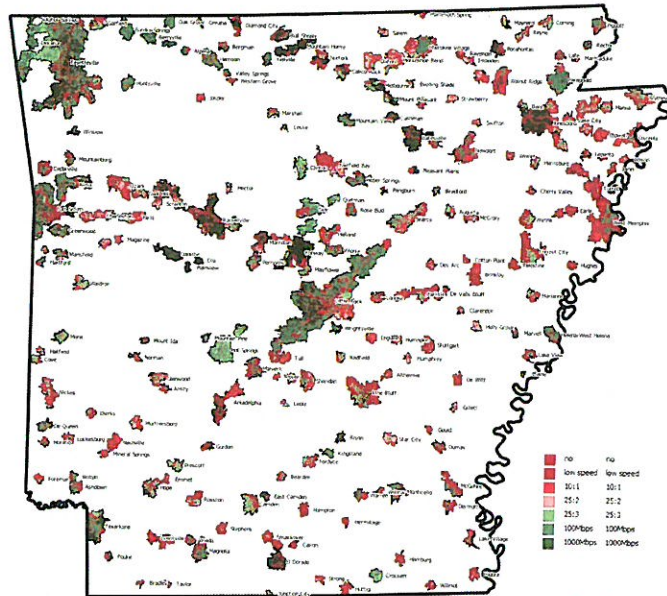
A Regional Problem



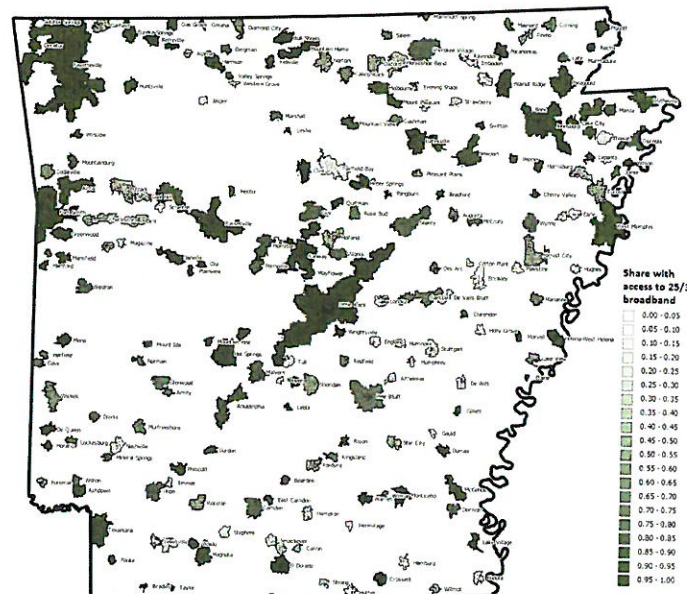
Governor Hutchinson's Goal

Objective: Universal 25/3 broadband access in Arkansas population centers of 500 or more

Status of the Governor's Goal



Share of Population with 25/3 Access



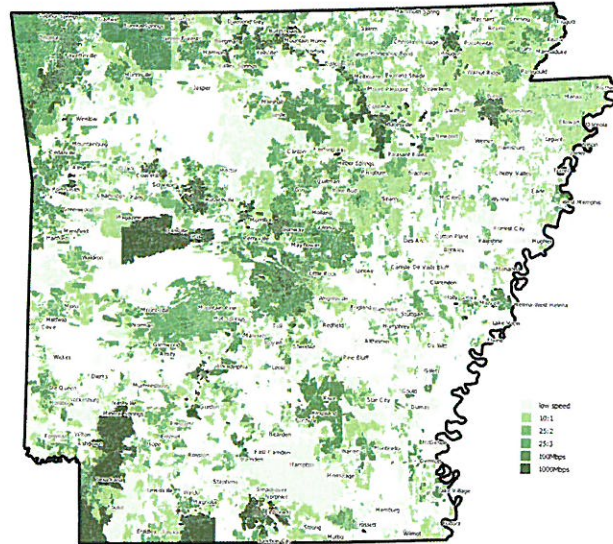
Governor's Strategy

- No commitments were made in the State Broadband Plan to financing broadband deployment with general revenue
- Seek to make optimal use of federal programs that promote rural broadband
- Consider exploring options for adjusting the state policy environment that might favor faster and more efficient deployment
 - Pole attachment policies
 - Arkansas High Cost Fund
 - Leveraging state assets (ARDOT, ARE-ON, public rights-of-way)?

Federal Programs Overview

- FCC
 - Connect America Fund-II (CAF-II)
 - Connect America Cost Model (CACM)
 - Alternative Connect America Model (ACAM)
 - Other smaller components, e.g., Broadband Loop Support
 - CAF-II Auction 903
 - Arkansas ISPs won over \$50 million in 10-year funding
 - Rural Digital Opportunity Fund (starting in 2021): \$20.4 billion in 10-year funding
 - Expected to be allocated through a reverse auction
 - Mobility Fund II (MF-II) auction: \$4.53 billion
- USDA
 - ReConnect: \$600 million in 2019, \$550 million next year and expected annually going forward
 - Community Connect
 - Telecommunications Infrastructure Loans
 - Distance Learning & Telemedicine Grants
 - Rural Broadband Access Loans
- Other agencies, e.g., Department of Commerce, NTIA

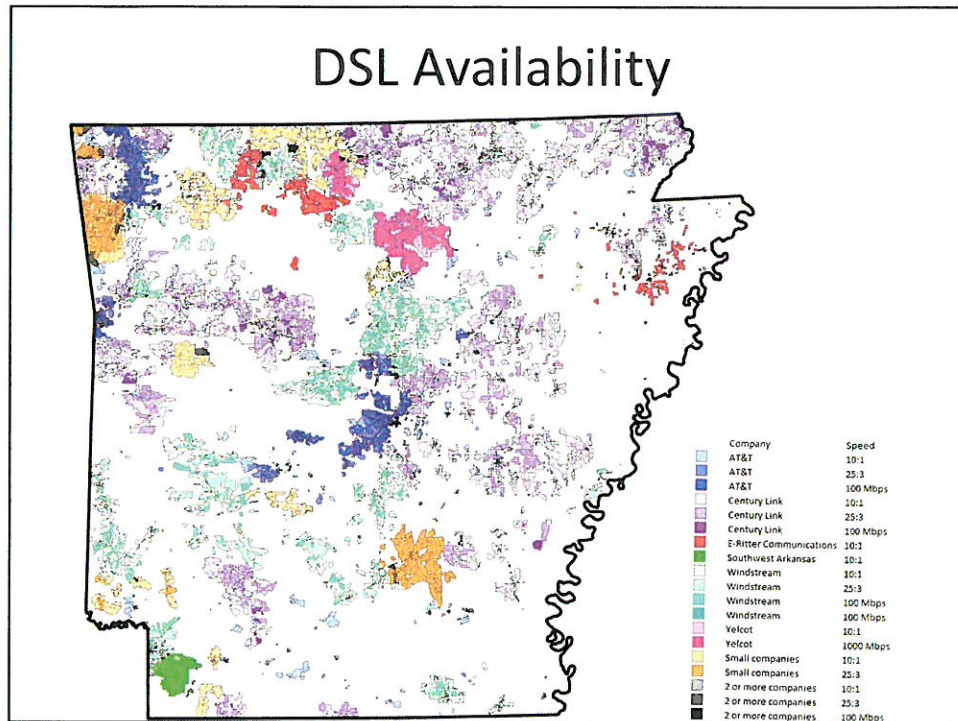
Maximum Advertised Speed by Census Block (Form 477)



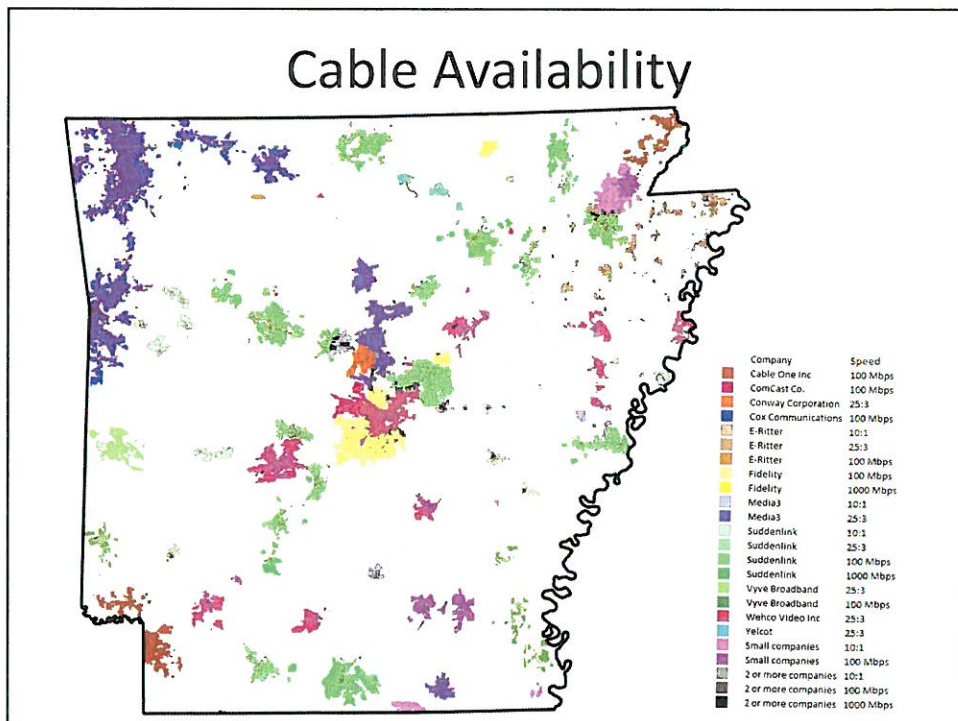
Broadband Technology

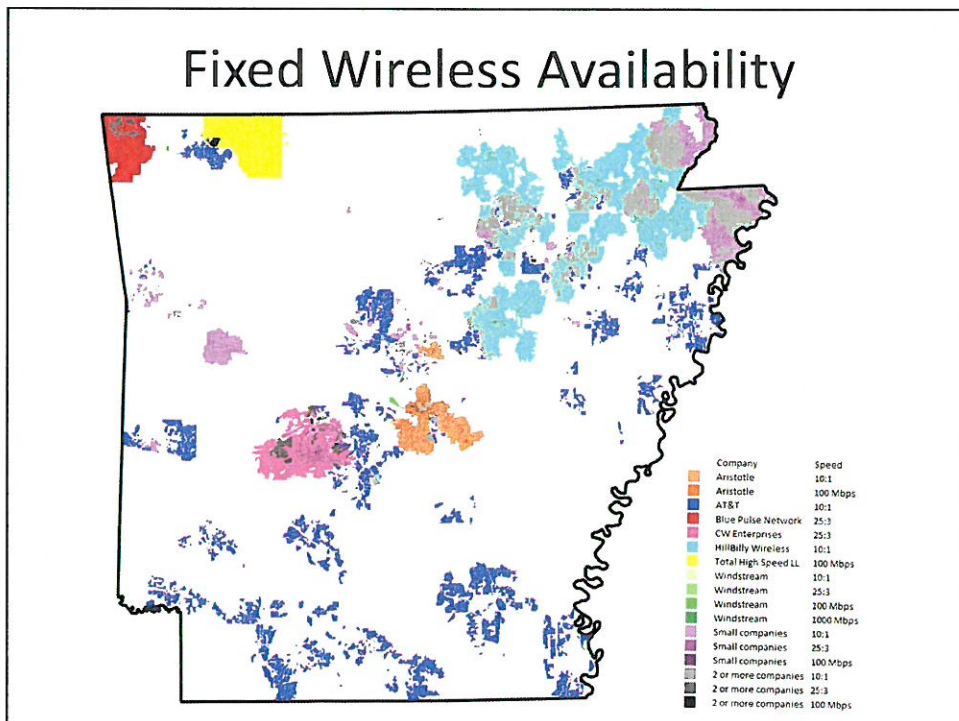
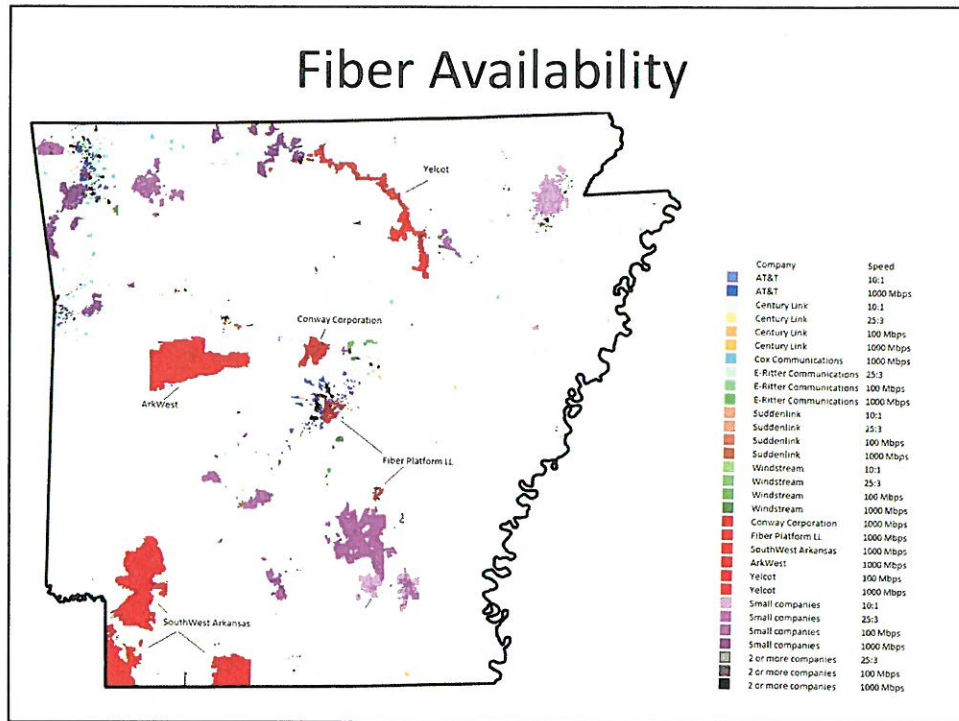
- FCC definition of "broadband" – 25/3 Mbps
- Types of Broadband Technology
 - Digital Subscriber Line (DSL)
 - Uses legacy telephone network of twisted pair copper wire connections
 - Hard to achieve cutting-edge performance standards
 - Cable Modem
 - Uses cable TV network of coaxial copper wire connections
 - Can achieve ultra-fast bandwidths with DOCSIS 3.1
 - Fiber-Optic Cable
 - Huge capacity, data moves at the speed of light
 - Considered "future-proof"
 - Fiber-to-the-home requires new investment
 - Fixed Wireless
 - Uses directional broadcasting to achieve high bandwidths wirelessly
 - Requires fiber-to-the-tower plus line-of-sight
 - Mobile Data
 - 68% of Americans had smartphones as of 2015
 - Mobile data tends to have lower bandwidths and data caps
 - "Cell phone only" is adequate for some light data users in areas with good cell phone coverage
 - 5G might be a game changer
 - Satellite
 - Shoots from space
 - Available everywhere, only option in many remote rural locations
 - High latency

DSL Availability

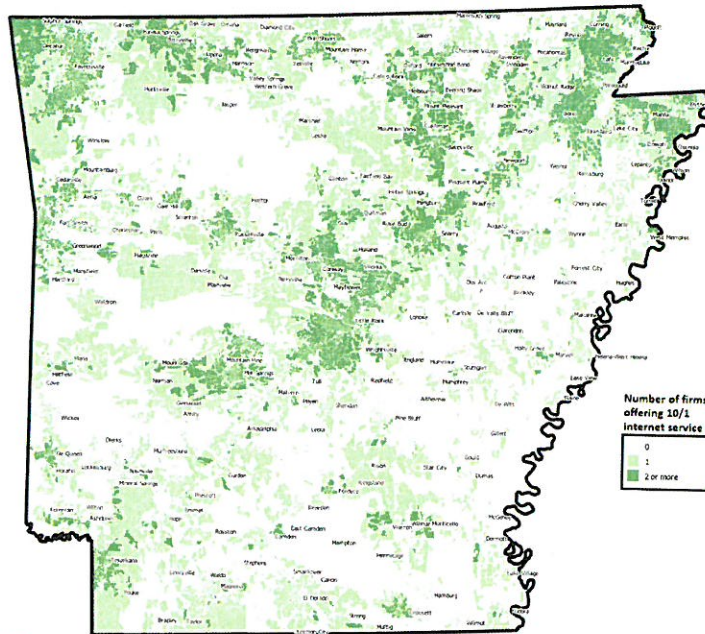


Cable Availability

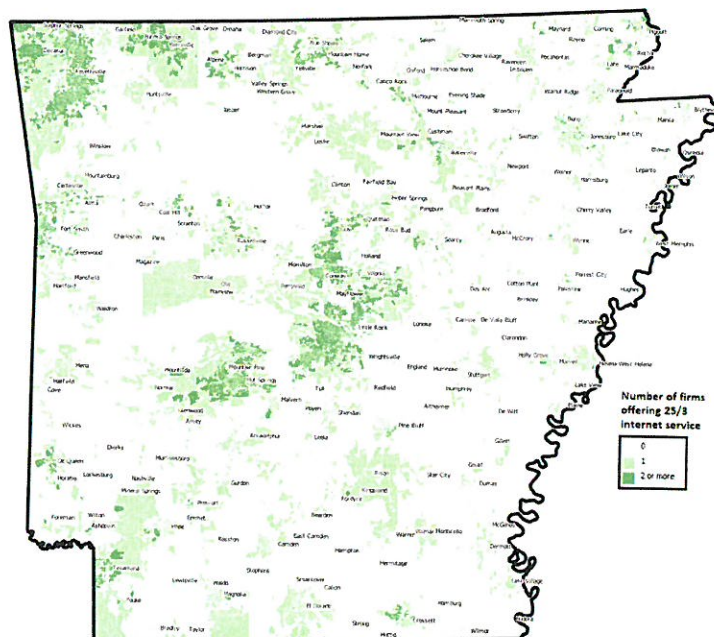




Number of competitors offering 10/1 Mbps



Number of competitors offering 25/3 Mbps



State Broadband Activity

- Arkansas State Broadband Plan recently published
 - ADFA Economic Policy Division led in coordinating/drafting the Plan with major inputs from DIS and other state agencies
- Legislative activity
 - Act 792 of 2019
 - State Broadband Manager will be named by the governor
 - Act 198 of 2019
 - Removes barriers for municipality broadband deployment
 - Act 813 of 2017
 - Allows for public-private partnerships to deploy broadband
 - Act 999 of 2019: Small Wireless Facilities Deployment Act
 - Establishes a detailed policy framework for deployment of “small cells” for 5G
 - Passed too late in the State Broadband Plan process (April 17th) to be covered in depth in the Plan

Nathan Smith, PhD Economics

Director of Economic Policy

Nathan.smith@adfa.arkansas.gov

501-682-5464

