BEAD Program: A Framework to Allocate Funding for Broadband Availability

State Broadband Report: Oklahoma

January 2024

VERSION 4.0

OKLAHOMA

1 Eligible Locations

How many unserved/underserved locations are eligible for BEAD funding?

15%
251K LOCATIONS

OF OKLAHOMA LOCATIONS LACK HIGH-SPEED BROADBAND IN JUN 2023
VS. 9% STATE/TERRITORY AVERAGE

UNSERVED LOCATIONS, JUN. 2024

62.9K LOCATIONS — Are estimated to lack broadband access at **25/3 Mbps**

UNDERSERVED LOCATIONS, JUN. 2024

58.3K LOCATIONS — Are estimated to lack broadband access at **100/20 Mbps**

These locations are primarily in rural areas and are eligible for BEAD funding to deploy broadband service.

2 Total Funding

How much capital funding is the State/Territory estimated to have?

$797M

IN BEAD FUNDING HAS BEEN ALLOCATED TO OKLAHOMA
VS. $743M STATE/TERRITORY AVERAGE

ESTIMATED BEAD FUNDING:

BEAD Funds allocated by NTIA	**$797M**
Estimated Provider Match	**$358M**
Estimated Total Capital	**$1.2B**

The provider match is estimated using a high-level service provider business case. See national summary deck for full details.

3 Deployment

How many locations can be covered with fiber and other technologies?

$416M-$797M

OF BEAD FUNDS IS REQUIRED TO BUILD HIGH-SPEED BROADBAND TO ALL ELIGIBLE LOCATIONS

DEPLOYMENT SCENARIOS:

Baseline Fiber		Maximum Fiber	
100% LOCATIONS REACHED	**58%** FIBER LOCATIONS	**100%** LOCATIONS REACHED	**86%** FIBER LOCATIONS
$775M TOTAL CAPITAL COST		**$1.2B** TOTAL CAPITAL COST	
$381M REMAINING BUDGET		**$--M** REMAINING BUDGET	

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Oklahoma | Estimated Eligible Locations for BEAD Projects

		Unserved *(less than 25Mbps/3Mbps)*	Underserved *(less than 100Mbps/20Mbps)*
	June 2023 FCC Broadband Locations	**145.6K**	**105.8K**
−	Subsidy Program Funded Locations[1]	73.3K	47.5K
−	Incremental Build[2] (13% annual build, for 12 months)	9.4K	--
=	**Jun. 2024 Estimated Eligible Locations**	**62.9K** Ⓐ	**58.3K** Ⓑ

Location Distribution in June 2024

■ Served ■ Underserved
■ Underserved and Unserved ■ Unserved

1.7M

1.6M

121.2K

121.2K

Ⓑ 58.3K — **3.4% of locations are underserved**

Ⓐ 62.9K — **3.7% of locations are unserved**

Oklahoma

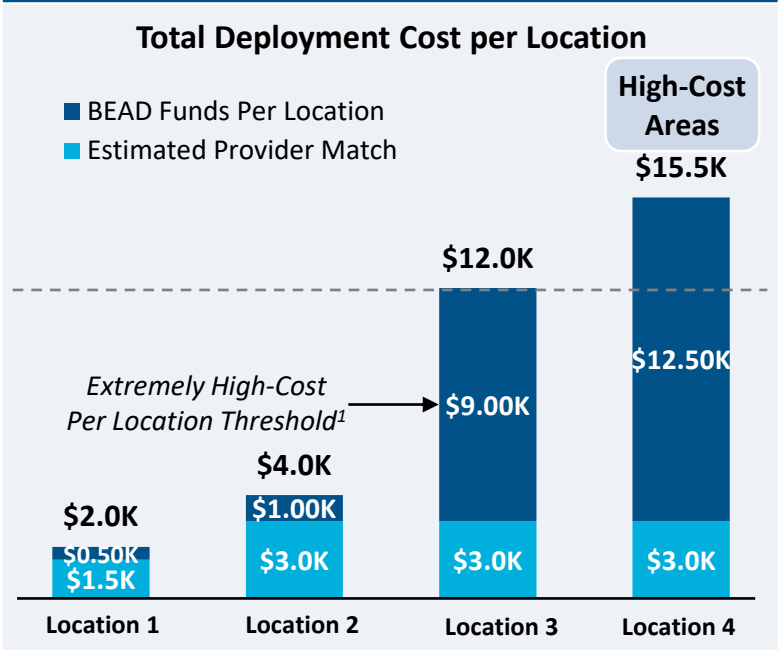**We estimate 7% of locations will be eligible for BEAD Project Funding in Oklahoma**
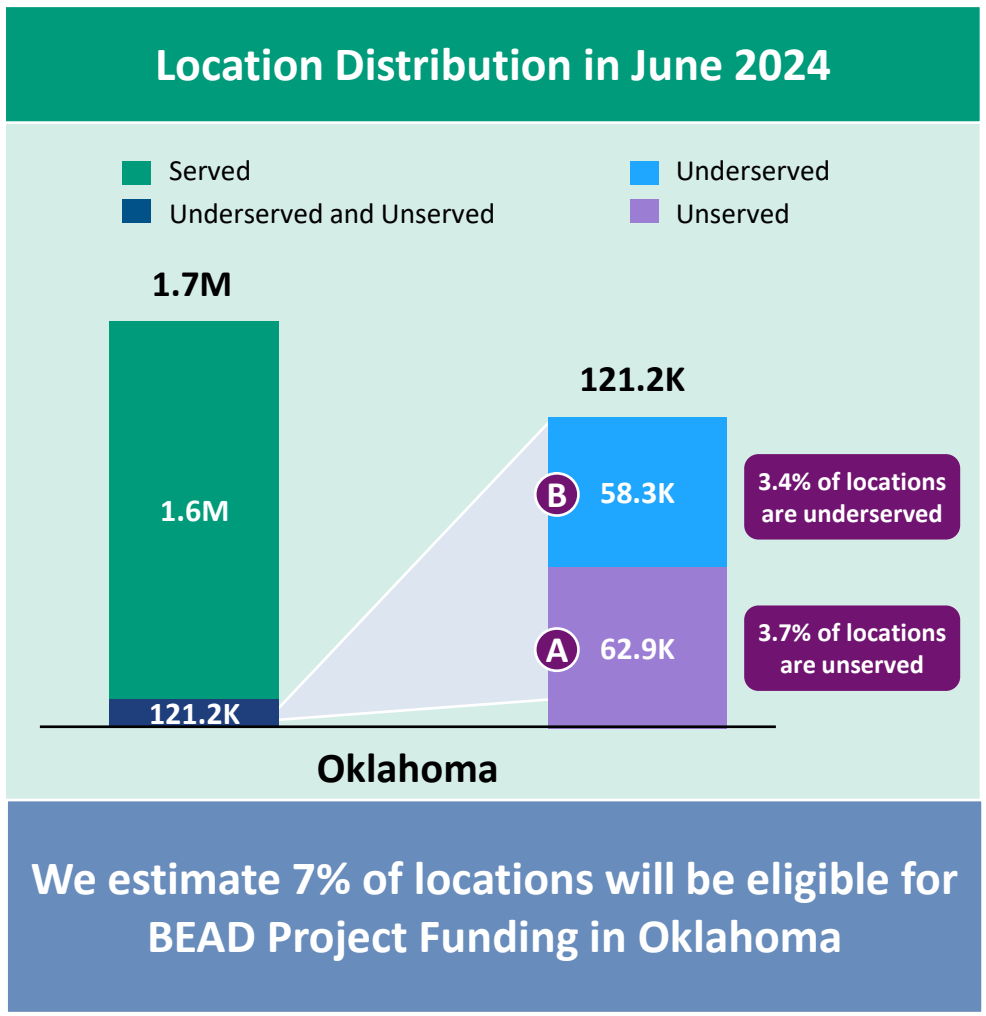
1. Locations with "commitments" to receive support from federal subsidy programs
2. Given the uncertainty around the magnitude of locations moving from unserved to underserved, we have not made incremental builds adjustments to underserved locations
BEAD eligible locations does not account for state-specific eligibility rules set forth in Initial Proposals
Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023)

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Oklahoma | BEAD Funding & Estimated Provider Match

Provider Match Examples

Total Deployment Cost per Location

- ■ BEAD Funds Per Location
- ■ Estimated Provider Match

High-Cost Areas
$15.5K

$12.0K

Extremely High-Cost Per Location Threshold[1] →

$12.50K

$9.00K

$4.0K

$2.0K
$0.50K
$1.5K

$1.00K
$3.0K

$3.0K

$3.0K

| Location 1 | Location 2 | Location 3 | Location 4 |

Provider Match %

75%	75%	25%	19%

To be conservative, we assume provider match amounts have a maximum of 75% and a minimum of 25%, except in high-cost areas

Total Capital Available - Oklahoma

$1.2B — Total Funds

$797M — BEAD Funding Allocation

$358M — Estimated Provider Match[2]
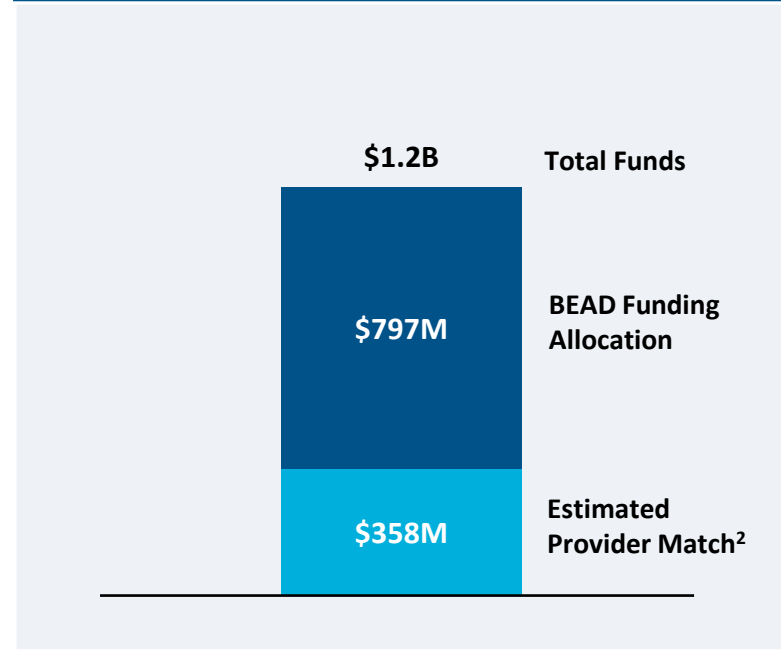
$1.2B in total capital is estimated to be available to serve unserved/underserved Oklahoma locations (combining BEAD funding and estimated provider match)

Provider Match - Oklahoma

Total Estimated Provider Match: $358M

÷ **Total Estimated Eligible Locations:** 121.2K
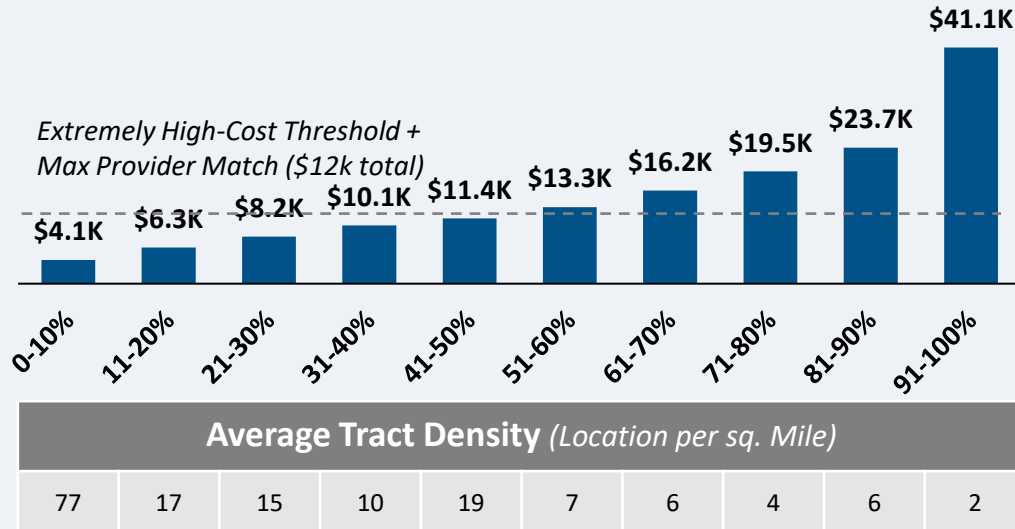
= **Average Provider Match:** $2,955 *PER LOCATION*

We estimate the average provider match will be $2,955 – provider matches will be 75% where cost to deploy is less than $4K

1. The model uses a $9k threshold, however, States/Territories will individually need to determine their appropriate extremely high-cost threshold
2. In reality, providers will determine the viable level of match funding for each project using a business case model. They will be willing to contribute a greater match in some locations and less in others. Locations which are hardest to serve may need to be fully funded by BEAD with no match. Competitive bidding should drive provider matches towards this level.

Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023), Benton, NTIA

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Oklahoma | Cost to Deploy Fiber by Decile

CAPEX Fiber Deployment Cost per Location Segmented by Cost Deciles[1]

Unserved Locations	Underserved Locations

Overall Average Cost per Location: $15,659

Extremely High-Cost Threshold + Max Provider Match ($12k total)

$4.1K — $6.3K — $8.2K — $10.1K — $11.4K — $13.3K — $16.2K — $19.5K — $23.7K — $41.1K

0-10% | 11-20% | 21-30% | 31-40% | 41-50% | 51-60% | 61-70% | 71-80% | 81-90% | 91-100%

Average Tract Density *(Location per sq. Mile)*

77	17	15	10	19	7	6	4	6	2

62.9K Locations

Overall Average Cost per Location: $10,103

Extremely High-Cost Threshold + Max Provider Match ($12k total)

$3.2K — $4.6K — $5.9K — $7.2K — $8.2K — $9.9K — $11.4K — $13.4K — $15.6K — $21.2K

0-10% | 11-20% | 21-30% | 31-40% | 41-50% | 51-60% | 61-70% | 71-80% | 81-90% | 91-100%

Average Tract Density *(Location per sq. Mile)*

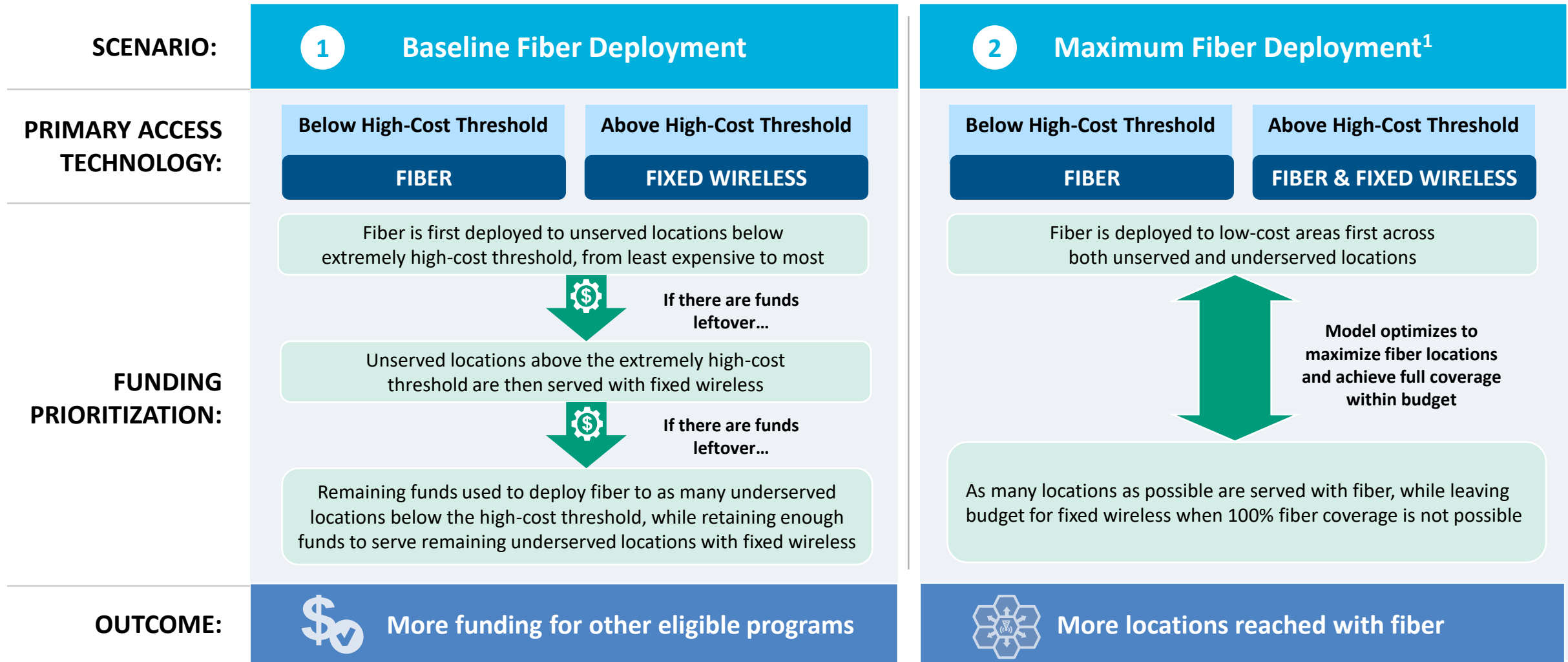| 117	37	23	21	14	27	10	7	9	12

58.3K Locations

Over 55% of locations are estimated to fall below the High-Cost Threshold + Provider Match

1. Chart values are average cost per location for each decile bucket
Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023)

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Oklahoma | Fiber Preferencing Scenarios

SCENARIO:	① Baseline Fiber Deployment	② Maximum Fiber Deployment[1]

PRIMARY ACCESS TECHNOLOGY:

Below High-Cost Threshold	Above High-Cost Threshold	Below High-Cost Threshold	Above High-Cost Threshold
FIBER	**FIXED WIRELESS**	**FIBER**	**FIBER & FIXED WIRELESS**

FUNDING PRIORITIZATION:

Fiber is first deployed to unserved locations below extremely high-cost threshold, from least expensive to most

If there are funds leftover…

Unserved locations above the extremely high-cost threshold are then served with fixed wireless

If there are funds leftover…

Remaining funds used to deploy fiber to as many underserved locations below the high-cost threshold, while retaining enough funds to serve remaining underserved locations with fixed wireless

Fiber is deployed to low-cost areas first across both unserved and underserved locations

Model optimizes to maximize fiber locations and achieve full coverage within budget

As many locations as possible are served with fiber, while leaving budget for fixed wireless when 100% fiber coverage is not possible

OUTCOME:

More funding for other eligible programs	More locations reached with fiber

1. Scenario 2 deploys fiber beyond the extremely high-cost threshold

Source: Cartesian

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Oklahoma | Scenario Analysis Results

SCENARIO: **1** **Baseline Fiber Deployment**   **2** **Maximum Fiber Deployment**

- ■ Fixed Wireless
- ■ Fiber

Scenario 1 — Baseline Fiber Deployment

	Unserved	Underserved	Total
Fixed Wireless	32.3K	18.3K	50.5K
Fiber	30.6K	40.0K	70.7K
Total	**62.9K**	**58.3K**	**121.2K**

Scenario 2 — Maximum Fiber Deployment

	Unserved	Underserved	Total
Fixed Wireless	16.6K		16.6K
Fiber	46.4K	58.3K	104.7K
Total	**62.9K**	**58.3K**	**121.2K**
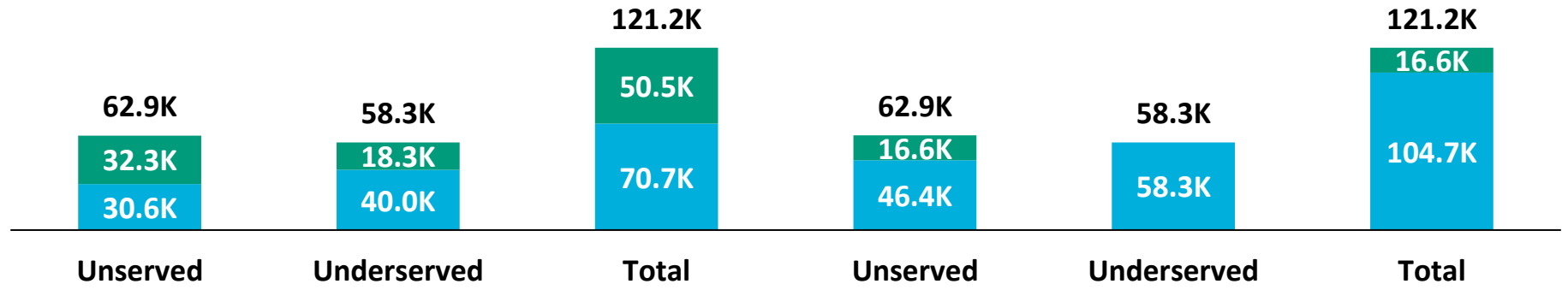
	Unserved	Underserved	Total		Unserved	Underserved	Total
Capex Required per Locations[1]	$6,370	$6,413	$6,391		$8,990	$10,103	$9,525

	Scenario 1	Scenario 2
BEAD Funds Available to State	$797M	$797M
➕ Estimated Provider Match	$358M	$358M
➖ Total Available Capital	$1.2B	$1.2B
➖ Capex Required to Build	$775M → +$381M	$1.2B
➖ Remaining Funds	$381M	$--M
% of Locations Reached	100%	100%
% of Locations Reached with Fiber	58% → +28%	86%

1. Funding to deploy fiber before the maximum $3k provider match per location
Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023), Benton, NTIA

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Oklahoma | Conclusion

Funding Summary

Oklahoma is expected to receive

$797M in BEAD funding

+

$358M in estimated provider matching

We estimate the funding is sufficient to reach all of Oklahoma's 121.2k eligible locations with high-speed broadband

Key Findings

Oklahoma will need to decide how far to deploy fiber while considering the trade-off of having higher fiber coverage vs. retaining funds for other BEAD eligible programs

A Baseline Fiber Deployment…	vs.	Maximizing Fiber…
• Leaves $381M additional funds for affordability programs		• Exhausts funds without leaving additional funds for affordability programs
• Reaches 58% of locations with fiber		• Reaches 86% of locations with fiber
• Requires 42% to be reached with other tech.		• Requires 14% to be reached with other tech.

States/Territories will set their own extremely high-cost threshold and may choose a threshold or funding paradigm different from these two scenarios

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Oklahoma | ACA Connects Members

Member Name
Broken Bow Cable
Cable One, Inc.
Carnegie Cable
CIM Tel Cable, Inc.
Clarity Telecom, LLC dba Bluepeak
Consolidated Communications, Inc.
Crawkan Telephone Cooperative, Inc.
GTC, Inc.
Hinton Catv Co, Inc.
Northeast Rural Services, Inc.
Oklahoma Fiber, LLC
Ozarksgo, LLC
Pioneer Telephone Cooperative, Inc.
Sallisaw Municipal Authority
Southern Plains Cable TV
TDS Telecom
United Communications Assn, Inc.
Vyve

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