



BEAD: From Investment to Value

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Presented at the 19th Annual TFI Technology Conference

1/25-26/2024

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BUILT ON DATA











BEAD is Getting Here



BEAD IP Eligible Entity Progress Dashboard

Last Refreshed: 1/23/2024 12:00:00 PM EST



	Vol I Draft Shared with NTIA	Vol I Released for Public Comment	Vol I Submitted for NTIA Approval	Vol I Incorporating NTIA Feedback	Vol I Approved	Vol II Draft Shared with NTIA	Vol II Released for Public Comment	Vol II Submitted for NTIA Approval	Vol II Incorporating NTIA Feedback	Vol II Approved	BEAD Challenge Process Commenced	BEAD Challenge Process Completed
(12/12) Louisiana 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(11/12) Virginia 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(10/12) Colorado 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(10/12) Delaware 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(10/12) Kansas 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(10/12) Montana 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(8/12) American Samoa 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(8/12) CNMI 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(8/12) District of Columbia 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(8/12) Guam 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(8/12) Hawaii 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

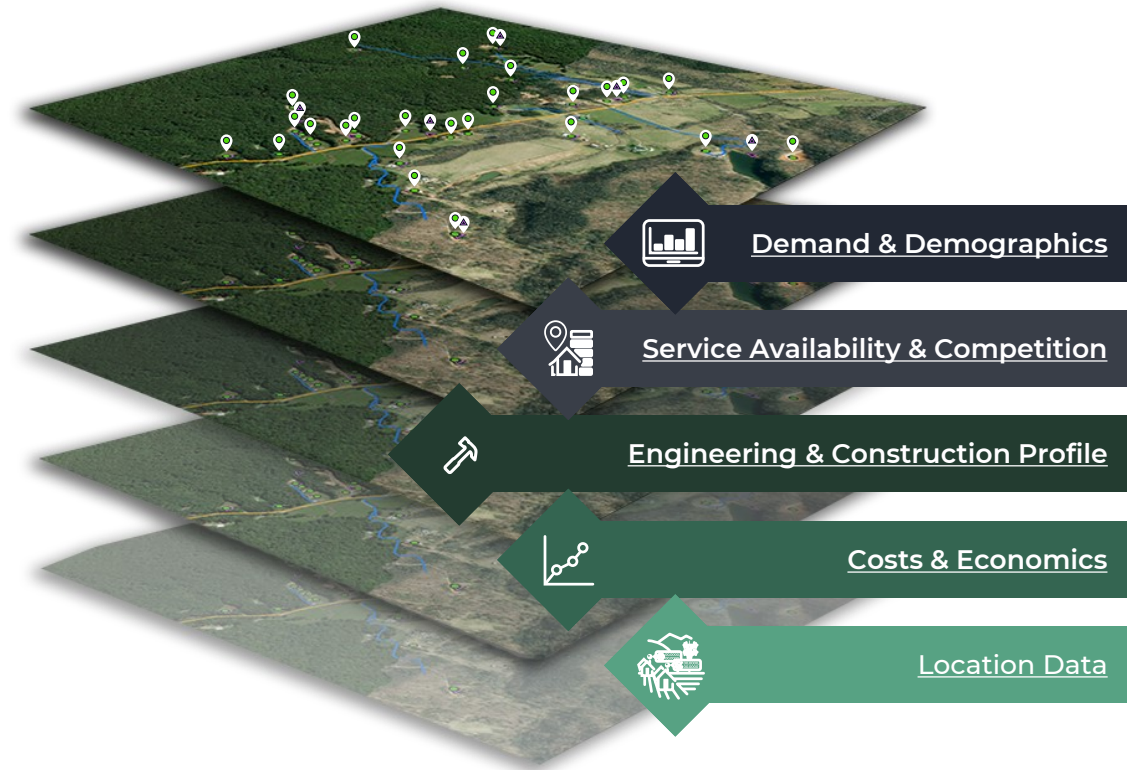
All 56 states and territories have submitted their Initial Proposal Volume 1 and 2 Drafts with NTIA, and posted them for Public Comment

[Visit the BEAD Proposal Progress Dashboard for info on your state](#)

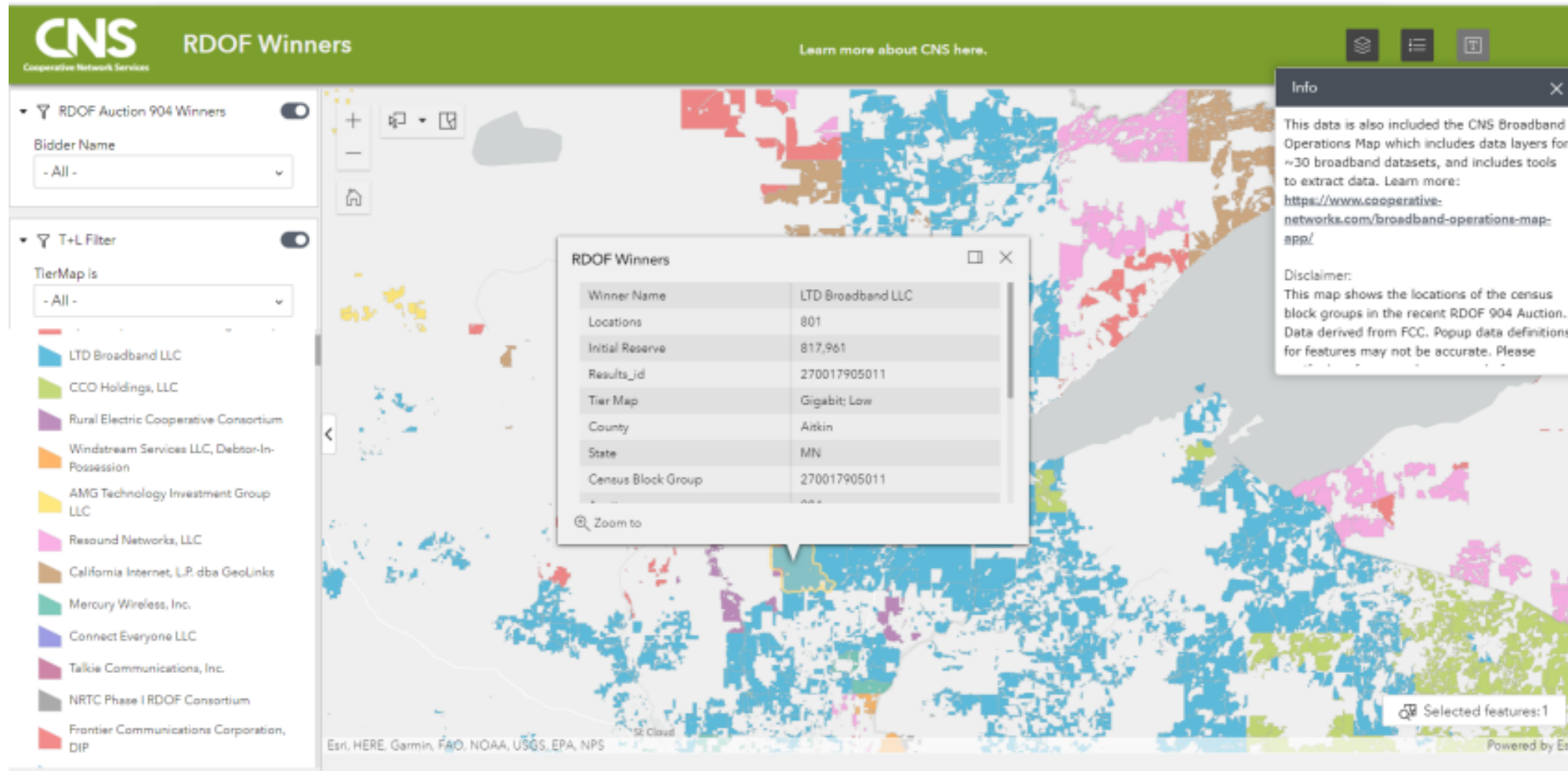
How many staff does the
Louisiana Broadband Office
have? How many open
positions?

This Time It's Different! Technology Impact

- We learn from past funding programs
- BSL level data, challenge process.
- High quality data and resources available to all size telecom providers.
- Digitalization of surveys, video meetings, etc.
- Consumer demand for high speed
- Discipline in investing, demand on investor side (?)
- Less expensive maintenance



RDOF on the Census Block



BSLs and A Robust (loud) Challenge Processes

FCC National Broadband Map

Service: Residential | Technology: All Wired | Speed: ≥ 100/20

Address: 103 ALA MOANA BLVD HONOLULU, HI 96813

Data As Of: Jun 30, 2023 (latest) (Last Updated: 1/23/24)

Selected Location: **103 ALA MOANA BLVD HONOLULU, HI 96813**
Status: **Not Served** | Business | Unit Count: 1

Broadband Availability

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
Business-only Service				
Space Exploration Technologies Corp.	NGSO Satellite	220	25	
Viasat, Inc.	GSO Satellite	30	3	
Other Services				
Charter Communications	Cable	1000	35	
Hughes Network Systems, LLC	GSO Satellite	25	3	
T-Mobile USA, Inc.	Licensed Fixed Wireless	100	20	
Verizon Communications	Licensed Fixed	10	1	

Location Challenge

Availability Challenge



Planning the BEAD program

Understand the economics of Broadband for the eligible locations

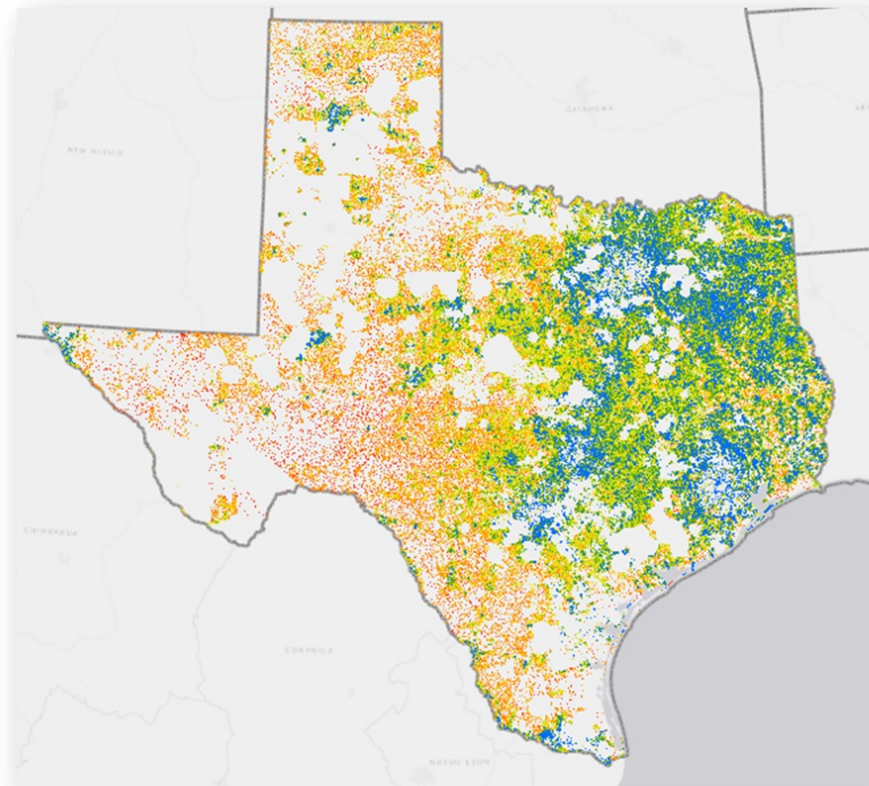
- The economics of the eligible locations vary and some may be attractive with minimal funding

Review overall budget and risks

Identify project areas and develop expected budgets per project area

Set extremely high-cost threshold approach

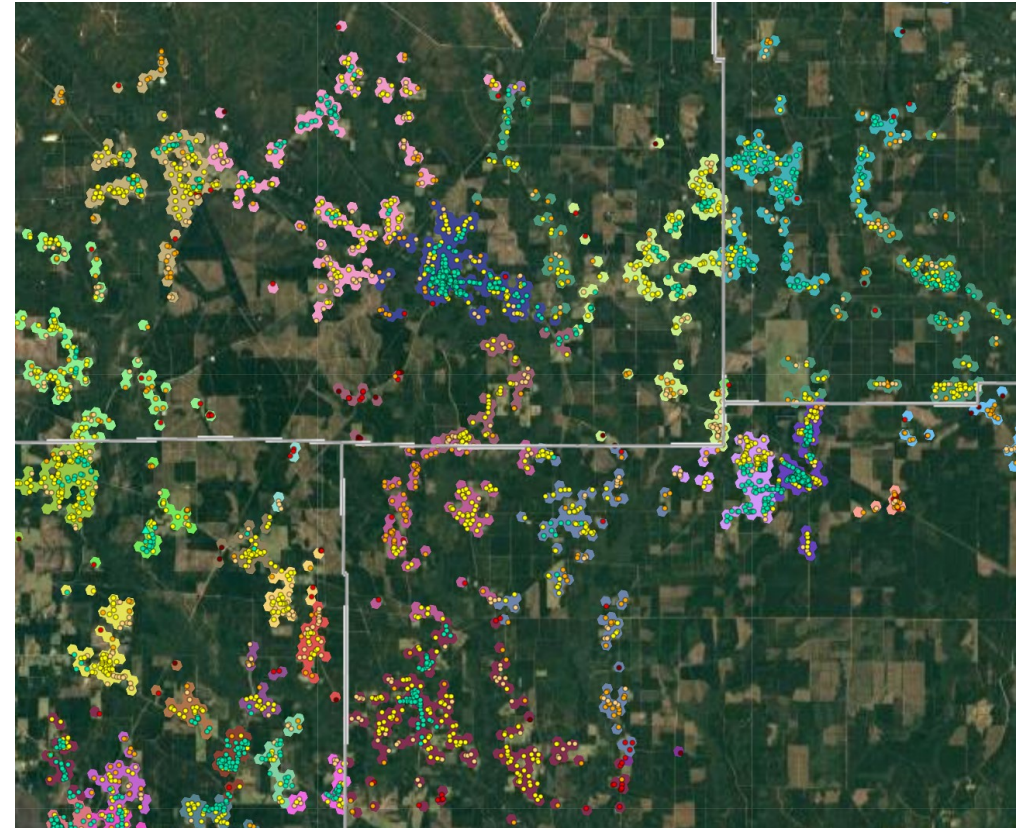
Identify process to review proposed projects



Legend – Dollar Values	
●	569.273595 - 2500.000000
●	2500.000001 - 5000.000000
●	5000.000001 - 10000.000000
●	10000.000001 - 20000.000000
●	20000.000001 - 100000.000000
●	100000.000001 - 2944452.448920

Initial Clustering

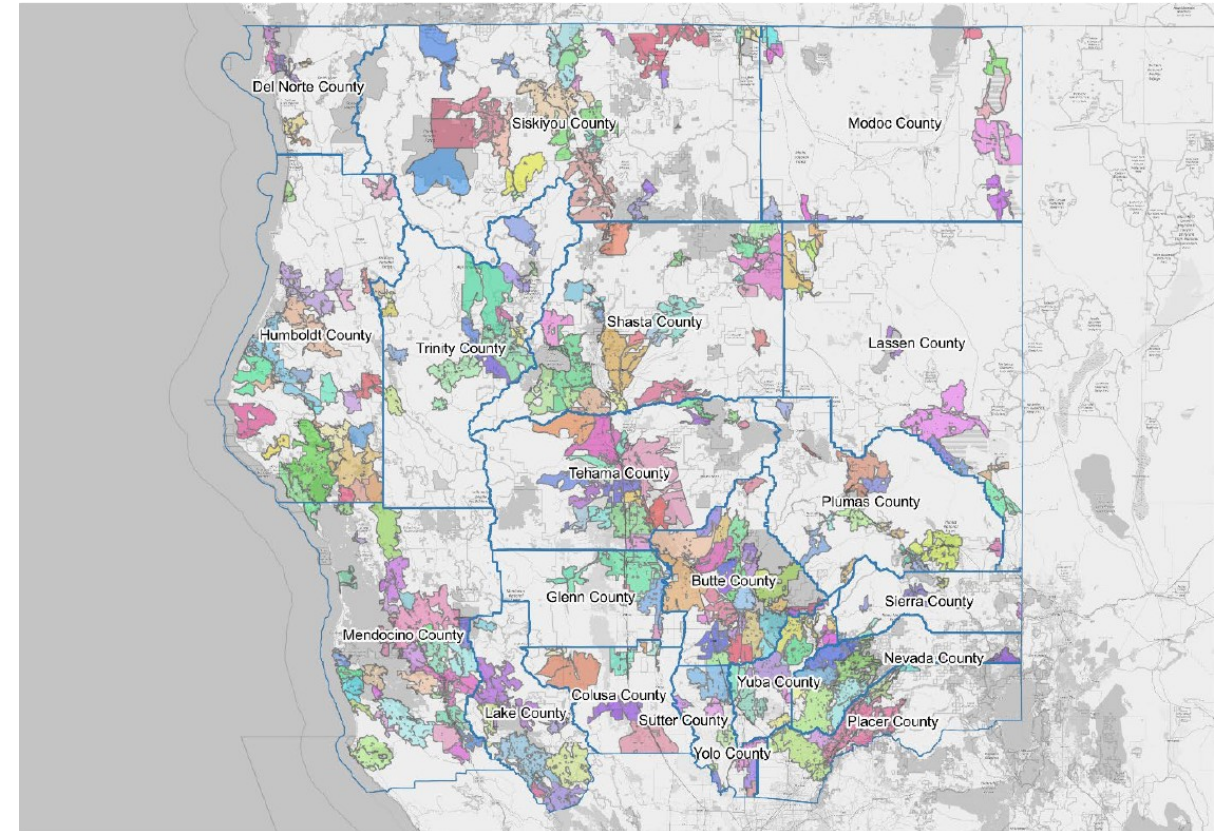
- Represent geographic aggregations of unserved and underserved locations
 - Census, Locations, Hex
- Capture Fiber financials for those locations
- Group locations within certain proximity



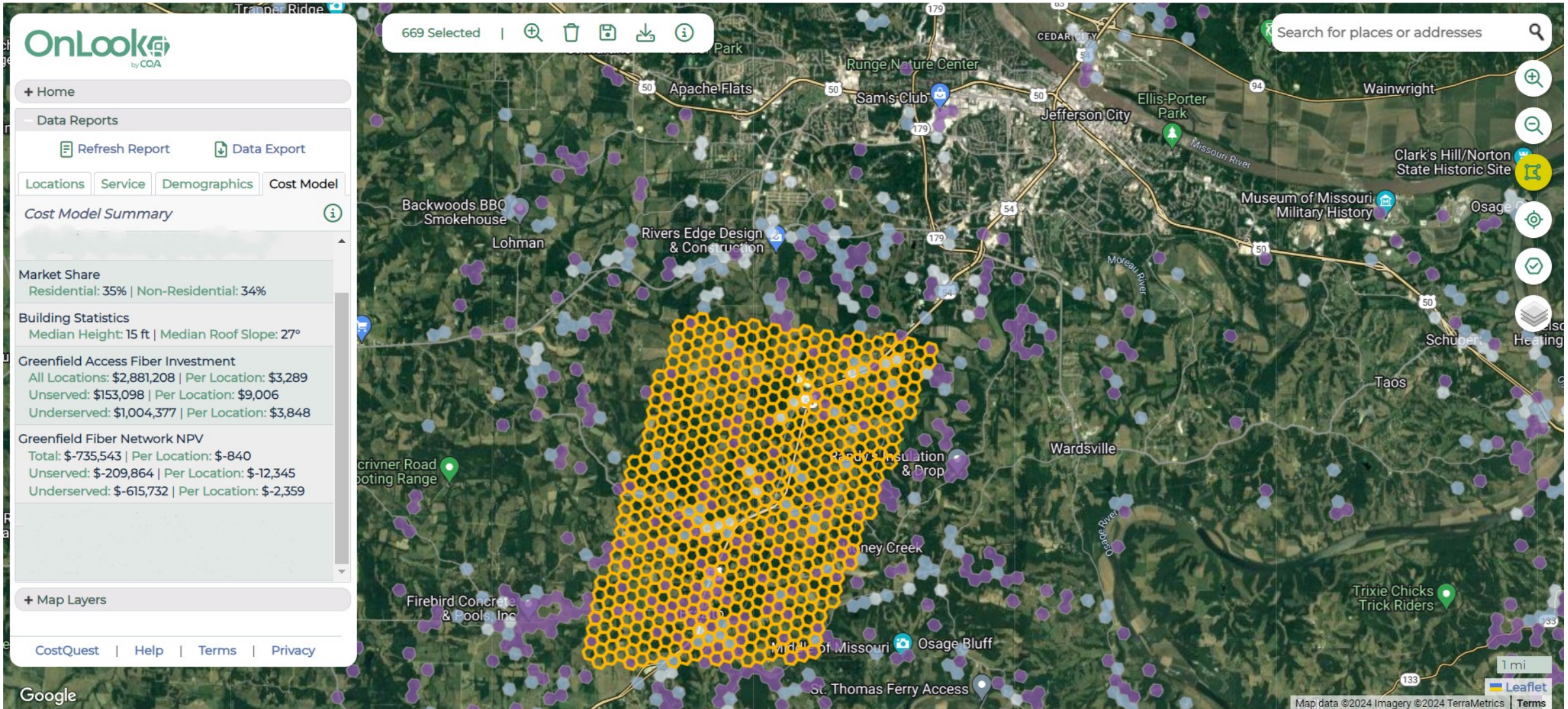
Creating Funding Areas

Consider other data

- Socioeconomic
- Environmental
- Tribal
- Other (e.g., Wireless)



An Example in Cole County, MO



What is the right balance of incentivization?




States

ROF: maximizing number of BSL's served

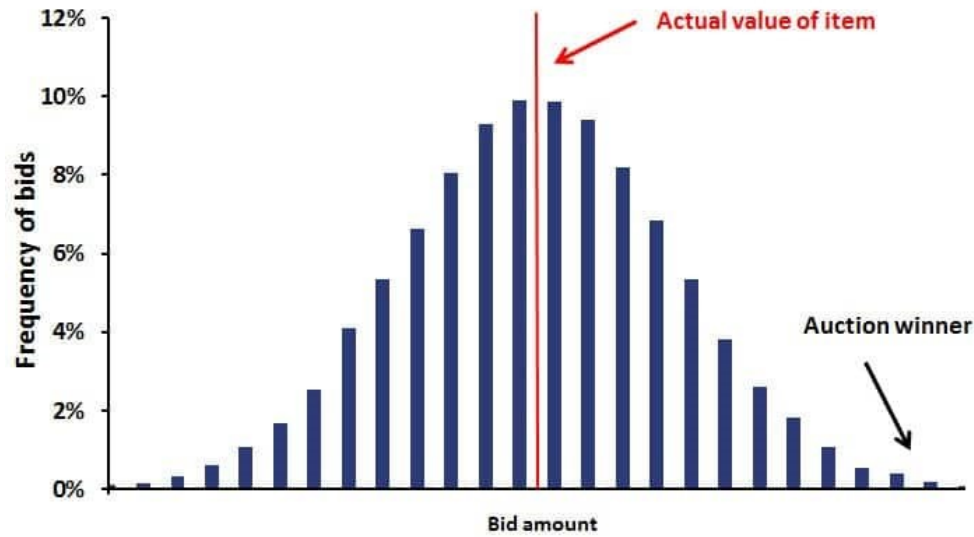


ISPs

ROI: ensure long term financial viability of serving new locations

Scenario	Telco Investment	BEAD Investment	Telco Return	Return on all capital
1	\$500 	\$0	10% (\$50)	10% (\$50)
2	\$500 	\$500 	12% (\$60)	6% (\$50)

BEAD Recipients Face Increased Risks



- ‘Winners Curse’ The party that wins an auction is the one who most overestimates the value
- This is observed in public company IPOs, and even in past rounds of broadband funding

The image is a screenshot of a news article from FIERCE Telecom. The article is titled "RDOF winners already defaulted on \$78M in bids – much more could follow" and is dated August 4, 2021, at 4:36 pm. The author is Diana Goovaerts. The article is categorized under "BROADBAND" and includes tags for "broadband", "broadband funding", "federal subsidy", and "rural broadband investments".

Different Players Participate for Different Reasons

1. Large Companies (defend markets / politics / expand adjacent areas)
2. Small Companies (can overbuild inferior service / low competition / public private partnerships)
3. Municipalities (unreliable providers / no competition / middle mile networks)
4. The Secondary Market (M&A and bankruptcy)



Local Telcos Win Most of \$19.7M in Nebraska Broadband Funding; Cox Gets \$2.4M, Lumen and Charter Also Win

Posted on January 11, 2024 11:07am by [Joan Engebretson](#)

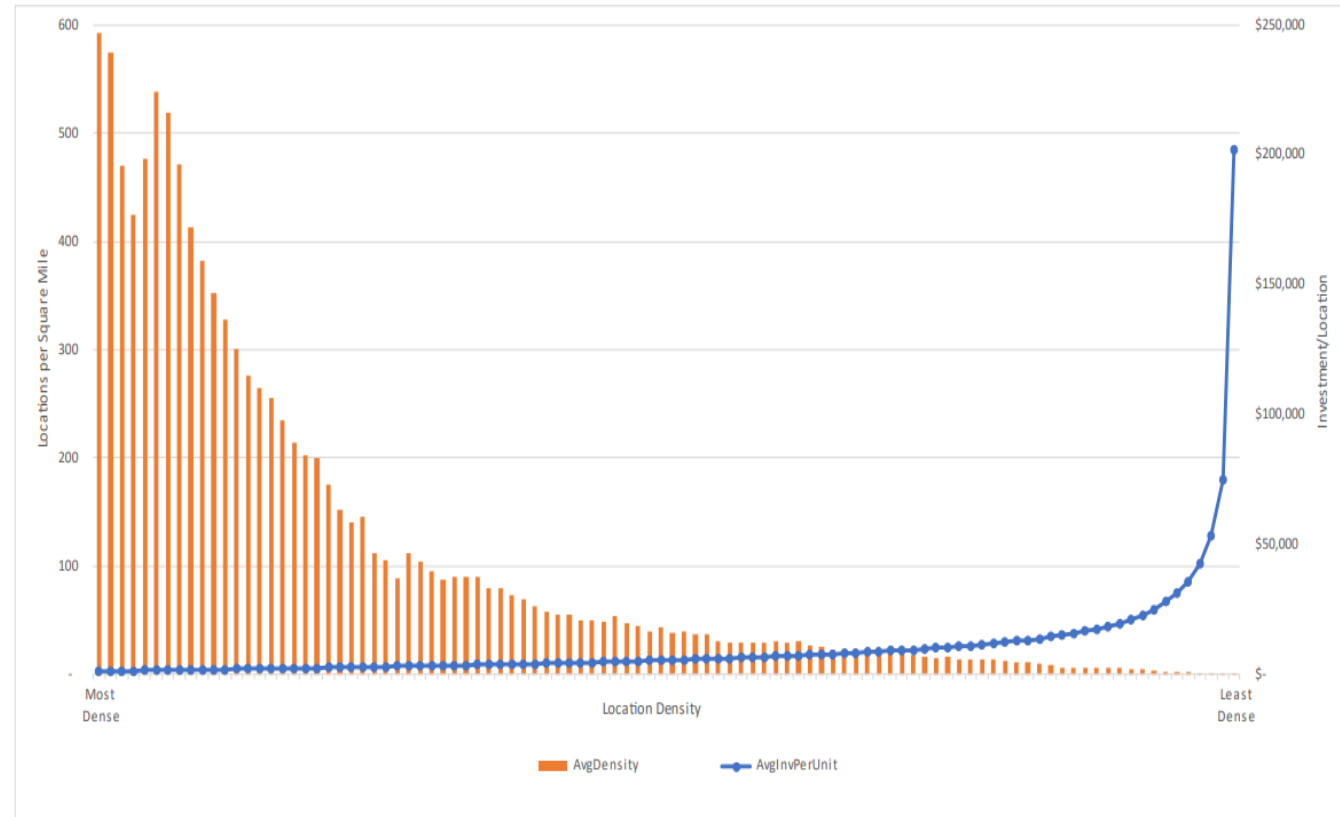
Small rural telcos that have served Nebraska for decades won the majority of \$19.7 million in broadband deployment funding awarded by the state yesterday. Ten

AT&T CEO on BEAD: Thumbs Up on Texas; Thumbs Down on Some Other States

Posted on January 24, 2024 11:15am by [Joan Engebretson](#)

AT&T sees opportunities to apply for funding in the \$42.5 billion BEAD rural broadband program in Texas and some other states, but likely will not apply for funding in some other states, said the company's CEO John

- BEAD has a fiber preference.
- Louisiana is ‘technology neutral’
- Licensed FW preference
unlicensed FW
- The states decide
Extremely high cost per location threshold” (EHCT)

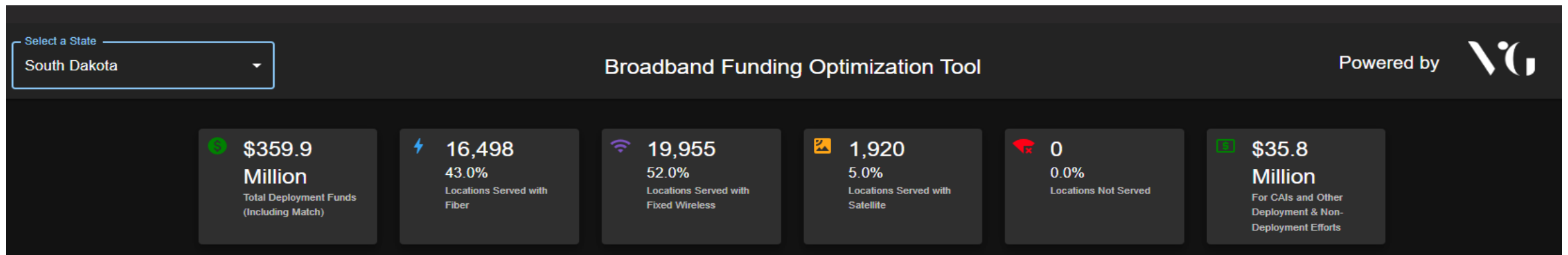


The Wireless Internet Service Providers Association (WISPA) funded a 'tool' that says the "optimal" EHCT is \$15,727 per location.

3.7 million homes FW (38% of total) and 0.4 million satellite.



- 80% of the state is served by small co-ops and municipal organizations – “trusted providers” who handled the location challenges
- 60 ISPs, 17 are SDTA telecom cooperative members, plus tribal-owned and municipal companies
- The outcome could be full fiber
- What is plan for grain bins and barns?



A \$42.45 billion check, split 1,000 ways

The latest (December 28) NTIA Policy Notice has updated language on ownership, audits, and federal cost principles.

Even after grants awarded complexities:

- BEAD recorded income
- Federal ownership, transitioning to private
- Mismatches in reimbursement
- Audits, carvebacks, restatements

To say nothing of the state specific rules!



What does this all mean for valuation and property tax?

- Who owns the network?
 - Ownership moving from federal to recipient as requirements met
 - Is it taxable?
- Is the network subsidized?
 - Are subsidies tangible or intangible assets in your jurisdiction?
- What happens to legacy networks' value when they compete with state or municipal owned networks?
- Total cost is not FMV or returning value, now what?

Contact Us

CostQuest Associates

Cincinnati | Seattle | Washington D.C.

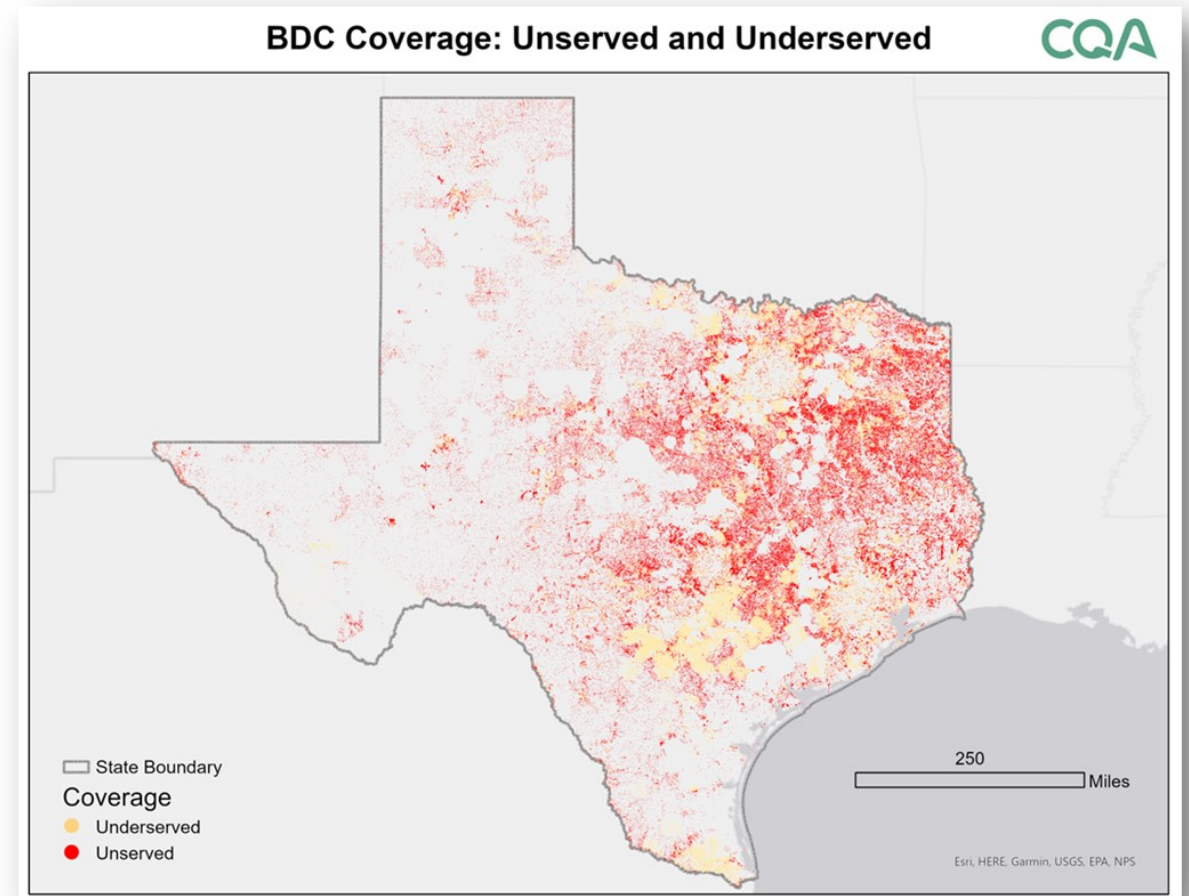


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- Coverage:
 - Obtain the NTIA and FCC coverage data
 - Run State Challenge
 - Identify locations with an enforceable commitment
 - Combine challenge, enforceable commitment deduplication, and any updated FCC coverage data to set the funded locations
- Set program guidelines:
 - Set key attributes to achieve
 - Identify qualifications for Potential Sub-Grantees
 - List project/grant requirements
 - Define Project Areas or Sub Project Areas
 - Develop Funding levels
 - Identify EHCT Approach
 - Define grant scoring criteria for awards
- Run programs, track, audit



Tom's Telecom is Going into Business



+ Home

- Data Reports

Refresh Report Data Export

Locations Service Demographics Cost Model

Cost Model Summary ⓘ

Network Complexity Score Brownfield
Median: 2.6 | Max: 25.7 | 10%: 1.6 | 90%: 6

Market Share
Residential: 35% | Non-Residential: 34%

Building Statistics
Median Height: 15 ft | Median Roof Slope: 27°

Greenfield Access Fiber Investment
All Locations: \$3,981,200 | Per Location: \$14,320

Unserved: \$153,098 | Per Location: \$9,006
Underserved: \$1,004,377 | Per Location: \$3,848

Greenfield Fiber Network NPV
Total: \$755,515 | Per Location: \$2,715

Unserved: \$-209,864 | Per Location: \$-12,345
Underserved: \$-615,732 | Per Location: \$-2,359

Consider Brazito a BEAD build by Tom's Telecom (TT):

- Total investment is \$1.16 million for 278 locations (\$4,163 per location)
- BEAD portion is \$825,596, allowing TT to breakeven with their \$331,879 investment

What is TT's Value Using Direct Capitalization?

Year	Homes passed	Penetration	Customers	Profit Per Customer	Cash Profit	Gain	Direct Capitalization 'Value' @ 18%
1	278	10%	28	\$288	\$8,064	\$825,596	\$4,631,444
2	292	25%	73	\$297	\$21,655	\$0	\$120,304
3	307	45%	138	\$306	\$42,164	\$0	\$234,247
4	322	55%	177	\$315	\$55,703	\$0	\$309,460
5	338	65%	220	\$324	\$71,312	\$0	\$396,179
6	355	65%	231	\$334	\$77,124	\$0	\$428,468
7	373	65%	242	\$344	\$83,221	\$0	\$462,337
Total					\$ 359,243		

- TT pays back initial investment after 7 years
- Eventually, the “Value” starts to make sense

Fortunately, TT's Property Tax is based on PP&E

Year	PPE investment	% good	Net PPE	Property tax rate	Property tax \$
1	\$1,157,475	98%	\$1,128,538	2%	\$22,571
2	\$1,157,475	93%	\$1,070,664	2%	\$21,413
3	\$1,157,475	88%	\$1,012,791	2%	\$20,256
4	\$1,157,475	83%	\$954,917	2%	\$19,098
5	\$1,157,475	78%	\$897,043	2%	\$17,941
6	\$1,157,475	73%	\$839,169	2%	\$16,783
7	\$1,157,475	68%	\$781,296	2%	\$15,626
					\$ 133,688

- TT books the investment and depreciates it straight line at 5% per year

TT Gets His Exit

Year	Customers	Cash Profit (before property tax)	Property tax \$	Profit after Property Taxes	Property tax per customer	Monthly property tax bill
1	28	\$8,064	(\$22,571)	(\$14,507)	\$806	\$67
2	73	\$21,655	(\$21,413)	\$241	\$293	\$24
3	138	\$42,164	(\$20,256)	\$21,909	\$147	\$12
4	177	\$55,703	(\$19,098)	\$36,605	\$108	\$9
5	220	\$71,312	(\$17,941)	\$53,371	\$82	\$7
6	231	\$77,124	(\$16,783)	\$60,341	\$73	\$6
7	242	\$83,221	(\$15,626)	\$67,595	\$65	\$5
Total		\$359,243	\$ (133,688)	\$ 225,555		

- TT decides to sell in year 2
- FiberUs buys for \$295,000 (7x project profit in year 3), plus debt retirement
- FiberUs goes through purchase accounting

Trade Name	Customer Relationships	PP&E	Total Purchase
\$14,758	\$29,515	\$250,878	\$295,151
5%	10%	85%	100%

What Can We Do From A Valuation Standpoint?

- Wait for it to play out
 - M&A activity, restatement
 - The dreaded 3 'four letter words'
- Adjust the full investment for the full economics and risk
 - Increase capitalization rates, lower lives,
- Treat BEAD dollars differently