Broadband Deployment Cost and Support
(Wireline)

Nebraska Broadband Task Force
November 7, 2018

Gary Warren

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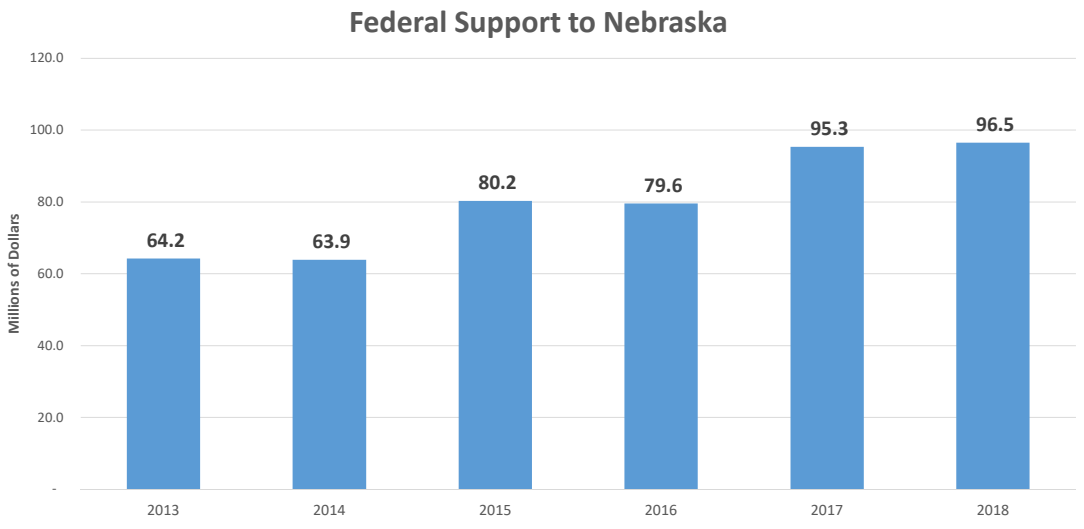

Data Source: USAC

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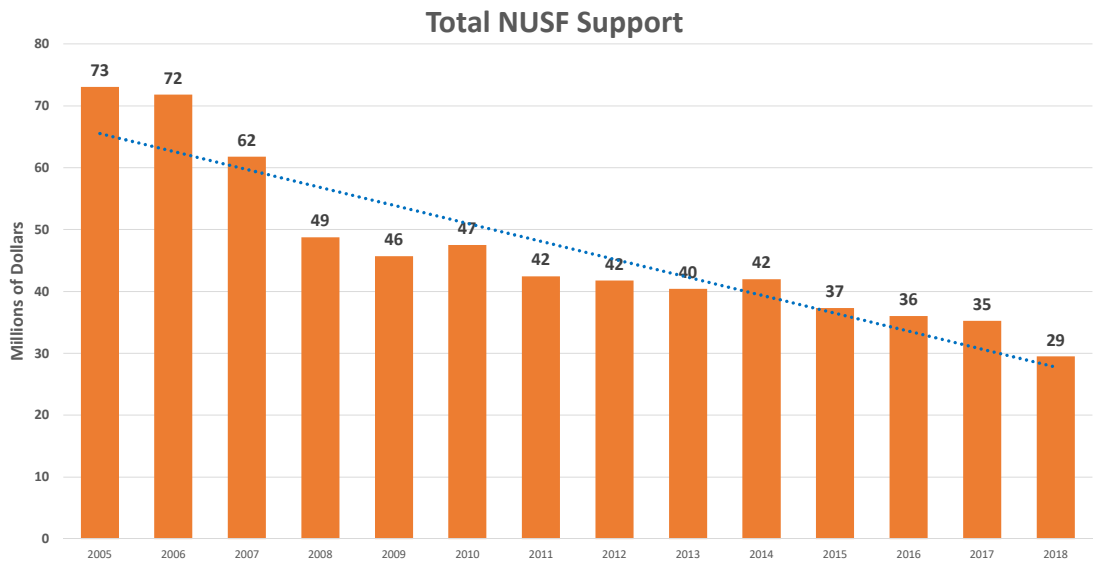

Data Source: Nebraska Public Service Commission

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The Annual Gap Between Need and Support

Description of Data	Dollars/Year	
State model (SBCM) calculated cost above the 52.50 benchmark		
Rate-of-Return carriers	130,523,215	
Price Cap carriers	121,926,518	
Total cost	**252,449,733**	**COST**
FCC offer to Price Cap carriers in Nebraska	23,215,615	
Estimate of Rate-of-Return A-CAM electors' support in Nebraska	34,236,996	
CAF ICC support to model electors	6,645,816	
Estimated federal legacy support to NE Rate-of-Return carriers	38,212,288	
Nebraska Universal Service Fund support	29,161,992	
Total estimated federal and state funding	**131,472,707**	**SUPPORT**
Remaining need for funding	**120,977,026**	**GAP**

Source: Data was compiled by Consortia Consulting, Inc. using the federal CAM, A-CAM and the state SBCM models

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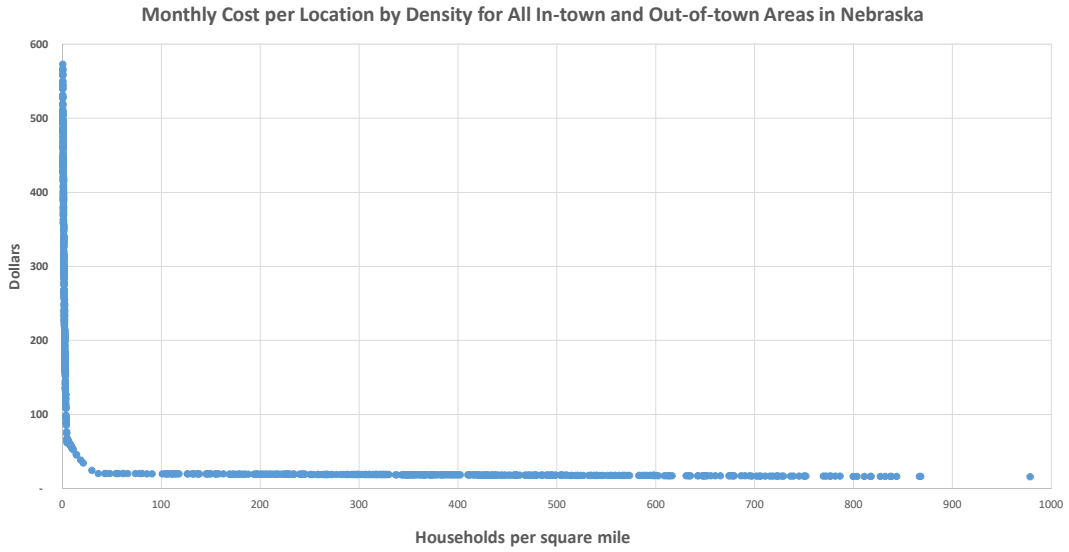
Density is a Very Significant Determinant of Cost



Data Source: Nebraska Public Service Commission, SAM Distribution Model

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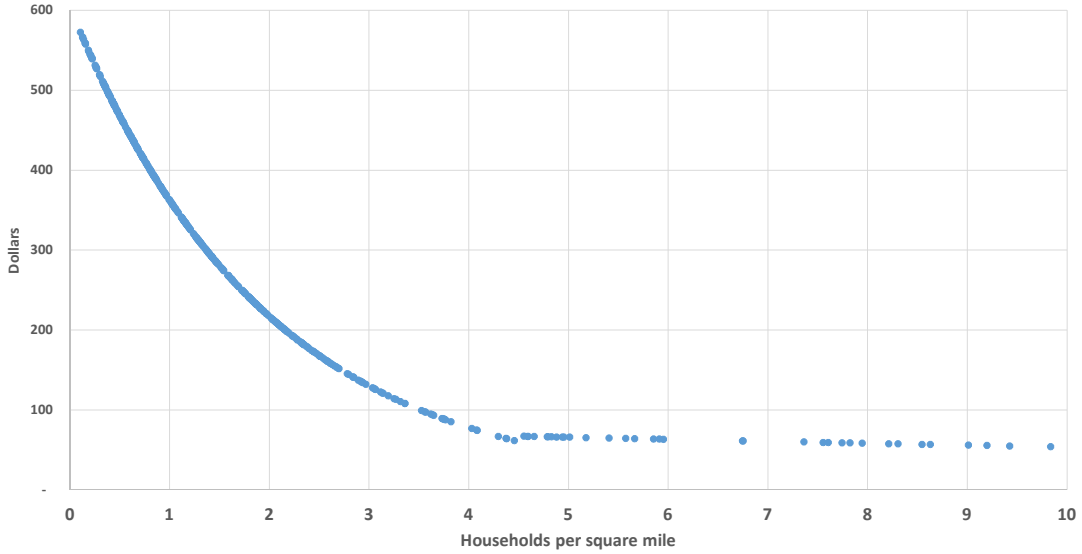
Monthly Cost per Location in Sparsely Populated Areas



Data Source: Nebraska Public Service Commission, SAM Distribution Model

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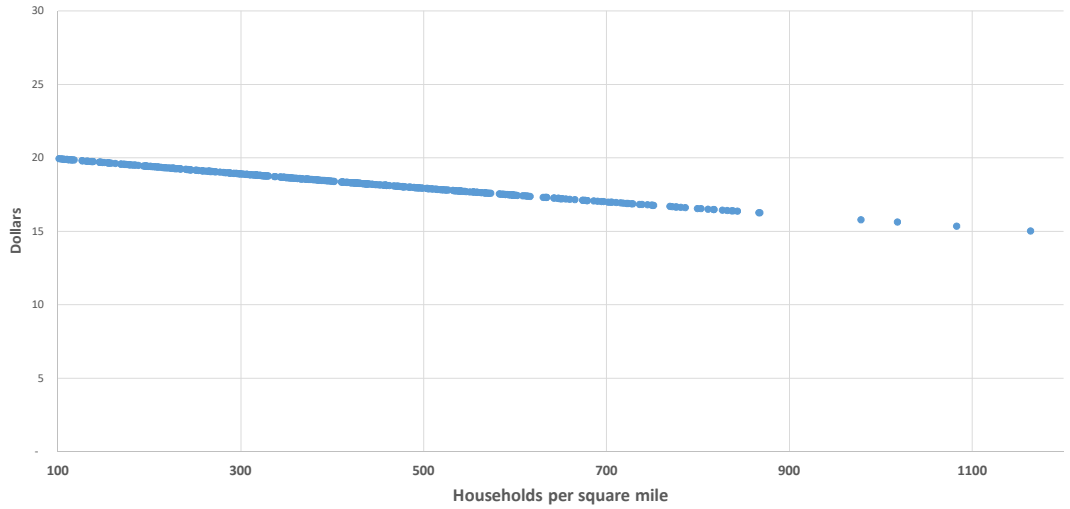
Monthly Cost per Location in Densely Populated Areas



Data Source: Nebraska Public Service Commission, SAM Distribution Model

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Rural Areas Vary Greatly in Terms of Density

Out-of-Town Portion of	Density (Households/Square Mile)	Monthly Cost per Location
Omaha	103.71	$19.93
Mullen	0.11	$572.67

Data Source: Nebraska Public Service Commission, SAM Distribution Model

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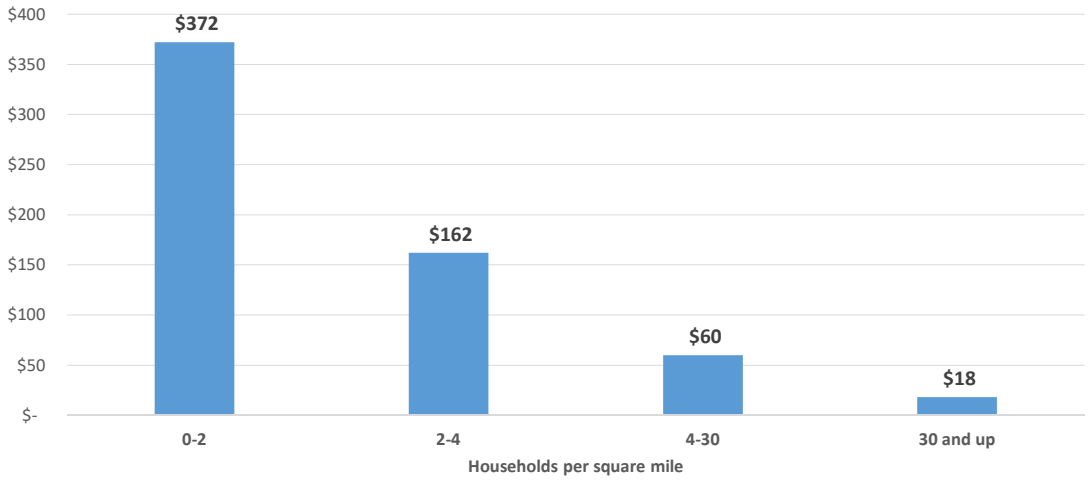
Average Monthly Cost per Location by Density Categories



Data Source: Nebraska Public Service Commission, SAM Distribution Model

Broadband Deployment Cost and Support

(Fixed Base Wireless)

Nebraska Broadband Task Force
November 7, 2018

Dan Spray

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Challenges facing Fixed Base Wireless

- Best current technologies are Line Of Site
- Most Fixed Base Wireless providers are self funded
- Provider must be an Eligible Telecommunications Carrier (ETC) in order to receive federal or state funding
  - This removes the typical competitive carrier from the current USF funding mechanism
- Connect America Fund Phase II
  - Difficult to submit for application
  - Need to become an ETC
  - Strict requirements

2

Build costs for Fixed Base Wireless

- Distribution Point
  - 3-12 sector tower using 5ghz
  - Serves ~8 mile radius
  - Serves ~30 customers per sector
  - Wireless backhaul both in and out
  - $6000 - $12000
- Customer Premises Equipment
  - ~$500/client

**Networks are typically rebuilt every 5-6 years

3

Operating costs for Fixed Base Wireless

- Wirelessly fed distribution
  - ~$25/mo per client
- Fiber fed distribution
  - 10 subscribers per tower - ~$130/mo per client
  - 30 subscribers per tower - ~$60/mo per client

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Income for Fixed Base Wireless

- Residential market – 25meg
  - ~$39/mo
- Commercial market – 35meg
  - ~$49/mo

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