Internet access progress for New Mexico's public schools

Presentation to Public Schools Capital Outlay Council

September 13th, 2017

Agenda

- EducationSuperHighway overview
- Summary of 2016 aggregation study
- Updates since 2016 study
- Conclusions
- Questions

Our mission

Upgrade the Internet access in every public school classroom in America so that all students can take advantage of the promise of digital learning.

Education SUPERHIGHWAY

Aggregation Financial Modeling – summer 2016

New Mexico's Goal: Support K-12 schools to ensure that their broadband infrastructure is able to support digital learning.

Study Goal: Understand comparative costs of different Internet access solutions for New Mexico schools districts, considering the benefits of collective action. The study provides **a basis for the state to decide on future action**.

Solutions considered:

1. Baseline – districts continue to purchase bandwidth at current pricing levels; no state intervention
2. Procurement optimization – state provides procurement assistance to districts to drive competitive pricing within regional clusters
3. Backbone – the state establishes a network in which school districts connect to interconnected regional hubs

2016 aggregation study - conclusions

1. Current price levels are a barrier to scaling up bandwidth for some districts

2. Cost of and participation in backbone network is uncertain
   - 5 year circuit costs range from $20M-$60M
   - Fixed costs of managing and maintaining the network are $740K-$4M/year; necessitates strong district participation
   - Based on experiences in other states, backbone will require 5+ years of planning and implementation to get >50% of schools on network

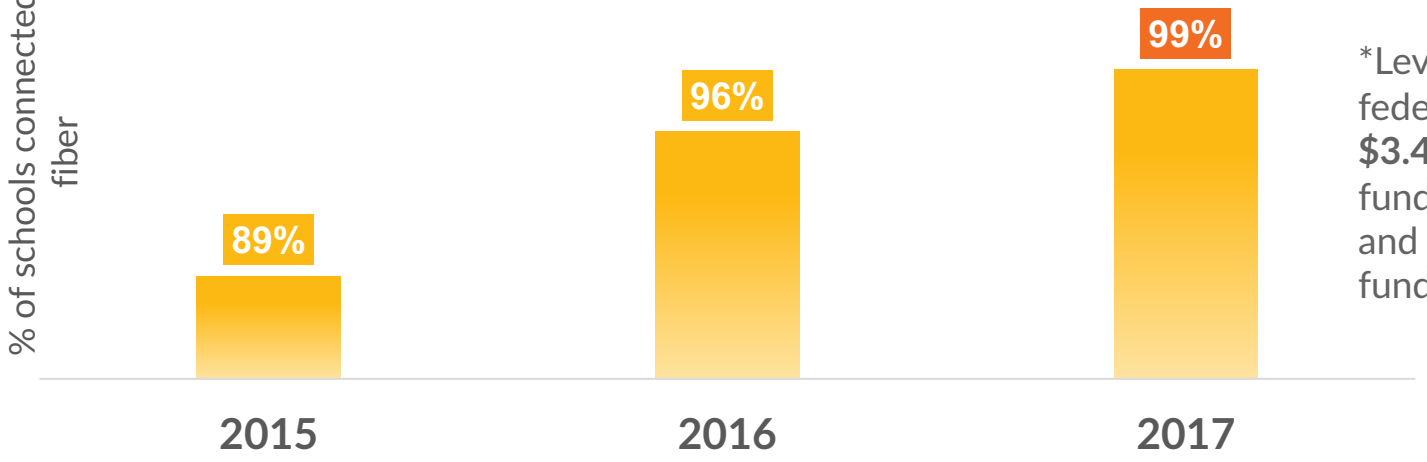
3. **Procurement optimization approach yields best outcome in the near-term, minimizes financial risk to the state**

Recommendation:

1. Pursue a pricing optimization strategy during 2016-17 E-rate cycle
   - Support IA procurements so that districts receive the best pricing available in their locale
2. Use market information captured from price optimization strategy to determine if a physical aggregation approach is viable in the long-term

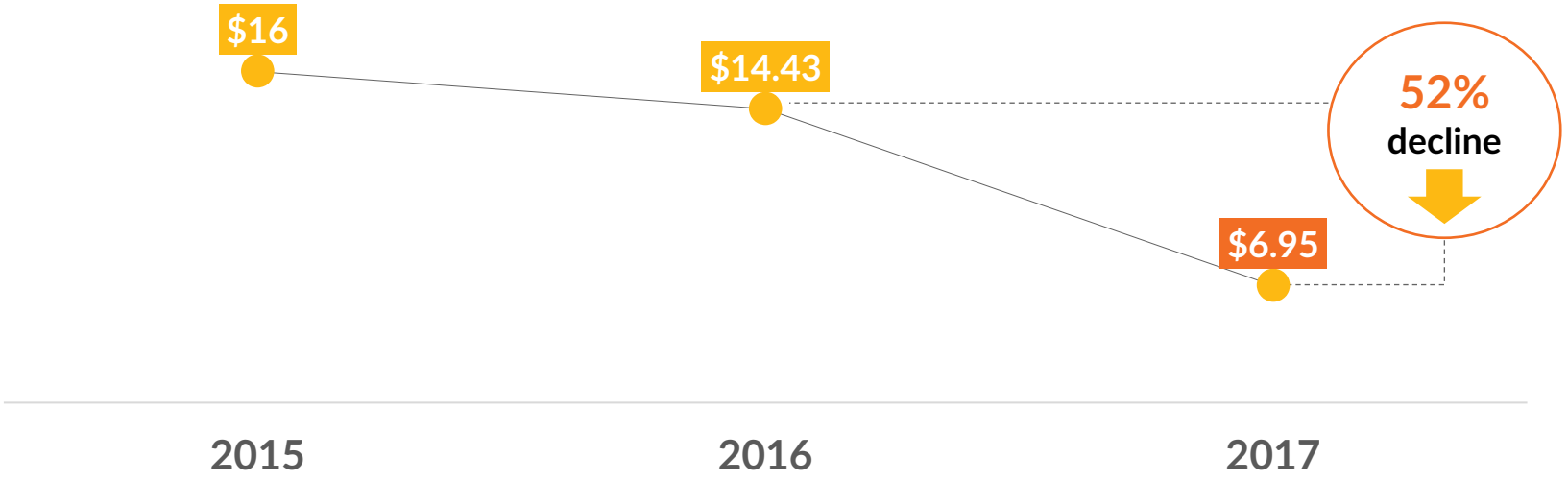
Updates since 2016 study

Nearly all public schools in New Mexico have scalable fiber connections



*Leveraged **$45.5M** in federal funding against **$3.4M** in PSCOC funding for upgrades and **$0** in school district funding

Median cost/Mbps has dropped by 50% year over year



Education SUPERHIGHWAY

School districts are participating in BDCP/BB4E support programs

Fiber projects – **28 RFPs** supported in 2015-16 and 2016-17

- $3.4M in state funding + $45.5M in federal funding ($0 in school district funding)

Wi-Fi projects – **95 projects** supported over the past two years

- $1.6M in state funding + $10.5M in federal funding

Affordability resources – nearly **2/3 of school districts** pay less for Internet this year compared to last year

- Pricing transparency – customized broadband information sheets
- Statewide Internet access pricing agreement: 18 districts received ceiling quotes that were lower than their current costs, 7 different vendors awarded

Regional aggregation points are developing naturally

REC 6 (Eastern New Mexico) reduced their cost/Mbps by nearly 50% from their existing service providers after aggregating demand and using price transparency.

Entities in **Grants County** are exploring a partnership between Western New Mexico University, Silver Consolidated Schools, and the town of Silver City to combine their purchasing power and dramatically increase Internet bandwidth

The **Jemez Tribal Consortium** had a fiber construction project approved by E-rate that will connect 3 tribal schools and 2 tribal libraries to fiber and to the Albuquerque GigaPoP for Internet access

Conclusions

1. Connect remaining schools to fiber through BB4E/BDCP support programs

2. Continue to drive Internet access prices down by supporting school district procurements, where needed
   - Price transparency
   - Procurement vehicles
   - Group purchasing, where there is local interest

Questions?