# State of New Mexico
# Data Collection Annual Report

## Pursuant to Section 7 of the Connect New Mexico Act
## October 2023

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# 1 Introduction

The Data Collection Annual Report has been prepared by the Connect New Mexico Council in collaboration with the Office of Broadband Access and Expansion (OBAE), pursuant NMSA 1978 63-9K-7, the Connect New Mexico Act (CNMA).[1]

This report documents the current state of broadband access and digital equity on a county-by-county basis across the State. Guided by the legislation, OBAE collected data and consulted with local governments, Tribal Nations, public educational institutions, State agencies, and community stakeholders to address the key requirements identified in the CNMA:

1. *Progress achieved toward digital equity and digital inclusion as identified in the digital equity analysis and plan:* This requirement refers to the State's Broadband Knowledge and Digital Equity Analysis and Plan (BKDEAP Report)—which, pursuant to NMSA 1978 63-9K-5, was completed in August 2023.

   Because less than three months have passes since the report was submitted, OBAE has not tracked any substantial progress. OBAE has gathered U.S. Census Bureau data to create a baseline in this annual report. The county-by-county analysis presented in Section 2 focuses on relevant digital equity/digital inclusion parameters.

2. *Progress achieved on implementation of the statewide broadband plan:* This requirement refers to the State's Three-Year Broadband Plan—which was completed in January 2023. OBAE has made excellent progress on the goals of Universal Broadband Availability, Broadband Adoption and Meaningful Usage, and Program Stewardship. The goal of Next Generation State Networks constitutes a longer-range horizon given the distinct focus and dedicated funding required. OBAE has successfully gathered baseline data, awarded pilot project grants, evolved of the State broadband map. See Section 3.

3. *Identified obstacles to an integrated system of permits, licenses and rules for broadband infrastructure across the state, including an expedited review process for rights of way use applications:* This requirement refers to a directive established in NMSA 1978-63-9J, the New Mexico "Broadband Access and Expansion Act" (OBAE Act). OBAE has been instructed to "coordinate with federal, local government, state and Tribal government agencies to create" such a system.

   Obstacles to creating permitting system continue to exist and will require a thoughtful approach. Permits, rights of way, pole attachment exist at private, local, state, federal, and tribal ownership. Several state entities currently provide for archeological and

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[1] "Connect New Mexico Act" https://law.justia.com/codes/new-mexico/2021/chapter-63/article-9k/section-63-9k-7/.

environmental permits and others have rights of way and easement permitting in additional to federal agencies for federal lands, and tribal for tribal lands. The number of points of contact for a given broadband project can have several hundred individual rights of way and easements and several permitting authorities. Collectively, permits and rights of way issues can take up to two years of project time. Details on the obstacles identified are presented in Section 4.

4. *Recommended statutory, regulatory or policy changes and budget recommendations for the development and expansion of broadband infrastructure and digital equity and digital inclusion:* OBAE and the Permits, Rights of way, and Pole Attachments Working Group from the Connect New Mexico Council, has gathered data, met with industry and experts, and come up with a short list of recommendations for the OBAE to review for legislative recommendation. Some of the recommendations include:

- Eliminate physical submission of checks and physical package submittal that add to cycle time of right-of-way/permits approval

- Develop a state-led summary of jurisdictions and a process for a given project footprint. This will provide insight and clarity to right-of-way applicants

- Eliminate the requirement for a cadastral survey before the permit process can begin; this will allow processes to be performed in parallel

- Allow permitting authorities to accept third-party approvals on engineering and environmental reviews from qualified resources (e.g., licensed engineering/environmental firms)

- Provide technical assistance to pole owners with encouragement and implementation of technology solutions (e.g., electronic inventory, use of drone technology for automated inspection of poles, electronic tracking and permit processing)

- Consider placement of broadband infrastructure in the "power space"

- Create a taskforce/workgroup with real knowledge and expertise available for dispute resolution—paired with a robust requirement for timely resolution

- Create a pole replacement fund

See Section 5 for complete analysis.

5. *Information on the broadband grant program:[2]* This requirement refers to the Connect New Mexico Grant Program, which has awarded funds in two waves. A third wave of applications has been completed as of the writing of this report and the fund has been fully awarded. Seventeen awards in total will be issued from this program, serving 23, 181 units (21,702 homes; 1,049 businesses; 231 community anchor institutions; 199 farms). Details on the program and the grantees are presented in Section 6.

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[2] Including, per the statute: "A list of grant recipients; the amount and date of each grant; a description of each project funded; and a description of how each project contributes to the statewide broadband plan and demonstrates increased access and quality of service for the unserved and underserved populations of New Mexico."

## 2    Progress achieved toward digital equity and digital inclusion in New Mexico

The State's Broadband Knowledge and Digital Equity Analysis and Plan (BKDEAP Report) documents the extensive broadband and digital equity consultation, analysis, and planning underway and performed on the Connect New Mexico Council's behalf in 2022 and 2023 by OBAE and members of the Council and Working Groups.[3]

Pursuant to NMSA 1978 63-9K-5, the BDKEAP Report was submitted to the Legislature in August 2023. It also represents a preliminary report on issues to be explored in the New Mexico Statewide Digital Equity Plan, which is due to the National Telecommunications and Information Administration (NTIA) by November 30, 2023.

Because of the timing of the 2023 BKDEAP Report relative to this Data Collection Annual Report, there is not yet progress to report on the BKEDEAP's assessment of digital equity and digital inclusion. OBAE has instead developed a county-by-county evaluation of digital equity and digital inclusion in New Mexico; based on best practices for use of U.S. Census Bureau data, the analysis presented here will be a baseline for future annual reports.

The following sections present a county-level overview of broadband service availability, broadband adoption, device ownership, and broadband affordability. Appendix A presents data on each county individually.

### 2.1    Broadband service availability by county

The following maps illustrate broadband service availability by county at multiple levels:

- Service availability at 25 Mbps download, 3 Mbps upload (25/3) – below which a location is considered unserved

- Service availability at 100 Mbps download, 20 Mbps upload (100/20) – below which a location is considered underserved (if it has at least 25/3 service)

Table 1 and Table 2 list the percentages of served, underserved, and unserved locations in each county.

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[3] "Broadband Knowledge and Digital Equity Analysis and Plan," Connect New Mexico Council in collaboration with the Office of Broadband Access and Expansion (OBAE), August 4, 2023, https://connect.nm.gov/uploads/1/4/1/9/141989814/nm_report_on_bkdeap_2023.pdf.

**Figure 1: Map of service availability at 25/3**
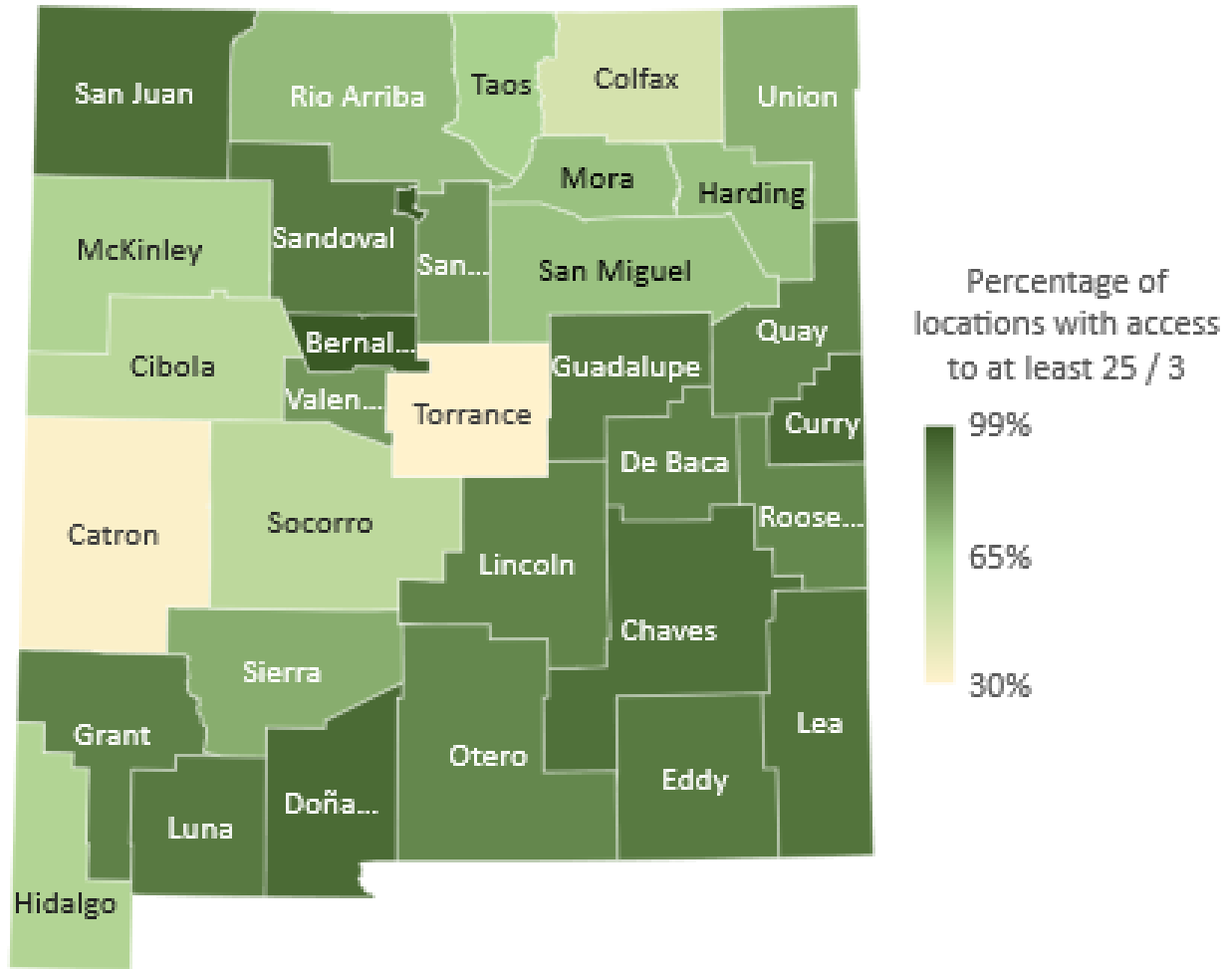
**Figure 2: Map of service availability at 100/20**
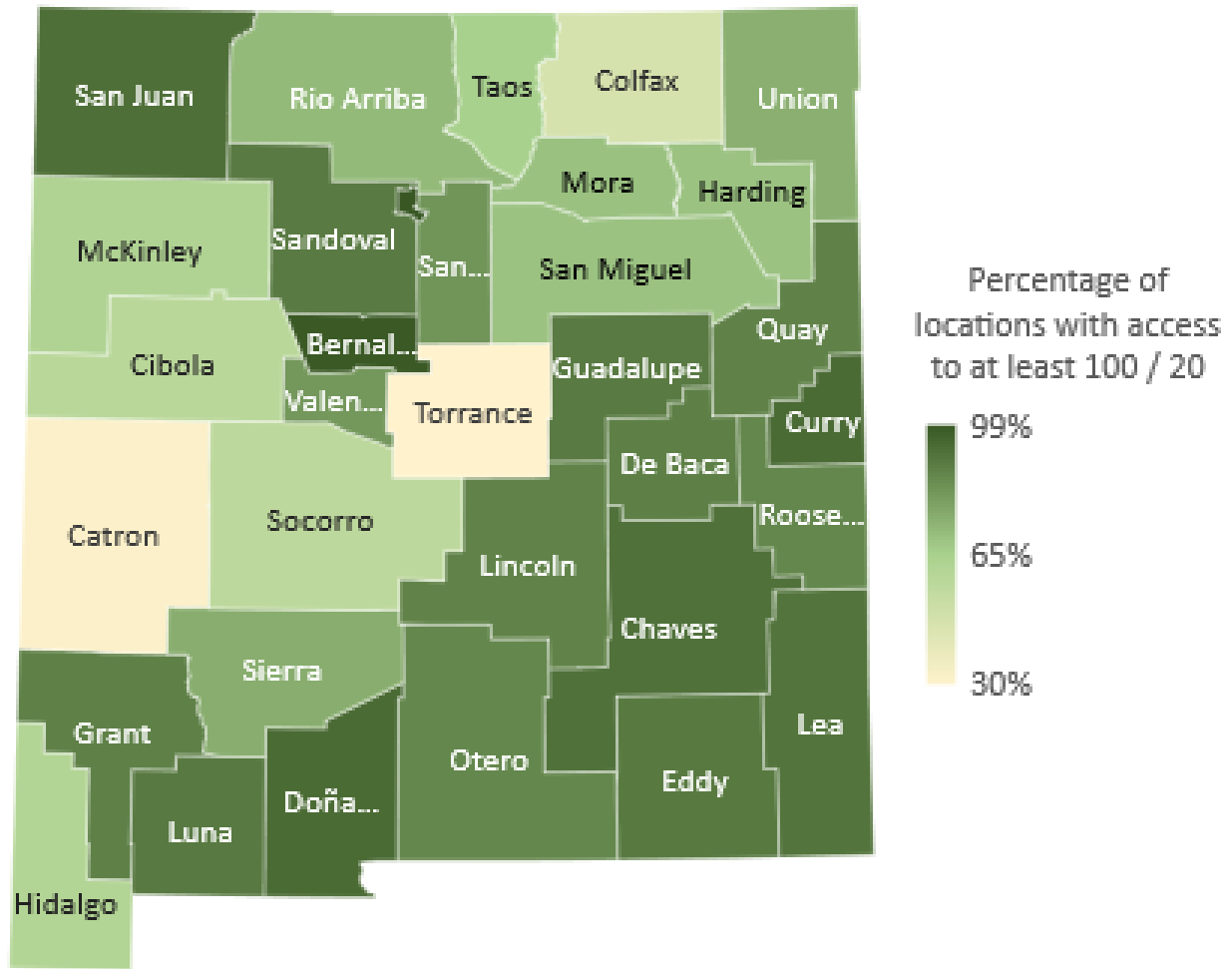
**Table 1: Service availability by county (25/3 and 100/20)[4]**

| County | >25/3 | >100/20 |
|---|---|---|
| Bernalillo | 98.1% | 96.9% |
| Catron | 31.7% | 0.0% |
| Chaves | 91.4% | 86.8% |
| Cibola | 57.5% | 53.0% |
| Colfax | 47.0% | 25.1% |
| Curry | 93.1% | 92.2% |
| De Baca | 87.1% | 86.0% |
| Doña Ana | 93.0% | 83.0% |
| Eddy | 88.9% | 85.7% |
| Grant | 87.0% | 67.4% |
| Guadalupe | 88.8% | 87.1% |
| Harding | 68.6% | 67.8% |
| Hidalgo | 60.8% | 12.6% |
| Lea | 90.6% | 89.3% |
| Lincoln | 86.4% | 84.0% |
| Los Alamos | 98.8% | 97.5% |
| Luna | 89.1% | 0.8% |
| McKinley | 61.7% | 35.9% |
| Mora | 69.0% | 68.9% |
| Otero | 85.2% | 73.3% |
| Quay | 86.6% | 85.1% |
| Rio Arriba | 70.8% | 17.5% |
| Roosevelt | 85.3% | 81.5% |
| San Juan | 91.8% | 85.4% |
| San Miguel | 68.6% | 64.2% |
| Sandoval | 88.8% | 84.1% |
| Santa Fe | 81.5% | 74.4% |
| Sierra | 74.5% | 70.5% |
| Socorro | 56.6% | 43.9% |
| Taos | 64.5% | 23.7% |
| Torrance | 30.4% | 24.7% |
| Union | 74.0% | 60.7% |
| Valencia | 80.7% | 75.9% |

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[4] Sources: Federal Communications Commission (FCC) Broadband Data Collection (BDC), July 25, 2023, data, https://www.fcc.gov/BroadbandData.

**Table 2: Unserved (less than 25/3) by county in rank order[5]**

| County | <25/3 |
|---|---|
| Torrance | 69.63% |
| Catron | 68.30% |
| Colfax | 53.03% |
| Socorro | 43.36% |
| Cibola | 42.53% |
| Hidalgo | 39.19% |
| McKinley | 38.28% |
| Taos | 35.50% |
| San Miguel | 31.41% |
| Harding | 31.40% |
| Mora | 31.01% |
| Rio Arriba | 29.18% |
| Union | 26.04% |
| Sierra | 25.46% |
| Valencia | 19.34% |
| Santa Fe | 18.51% |
| Otero | 14.76% |
| Roosevelt | 14.69% |
| Lincoln | 13.59% |
| Quay | 13.42% |
| Grant | 13.01% |
| De Baca | 12.90% |
| Sandoval | 11.24% |
| Guadalupe | 11.23% |
| Eddy | 11.06% |
| Luna | 10.89% |
| Lea | 9.38% |
| Chaves | 8.57% |
| San Juan | 8.17% |
| Doña Ana | 7.03% |
| Curry | 6.93% |
| Bernalillo | 1.90% |
| Los Alamos | 1.16% |

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[5] Sources: FCC BDC, July 25, 2023, data.

## 2.2 Broadband adoption by county

The following map and tables illustrate broadband service adoption metrics by county:

- Percentage of all households subscribed to internet service[6]

- Percentage of all households subscribed to wireline internet service[7]

- Percentage of all households subscribed only to a mobile data plan

**Figure 3: Map of internet service adoption by county (all technologies)[8]**



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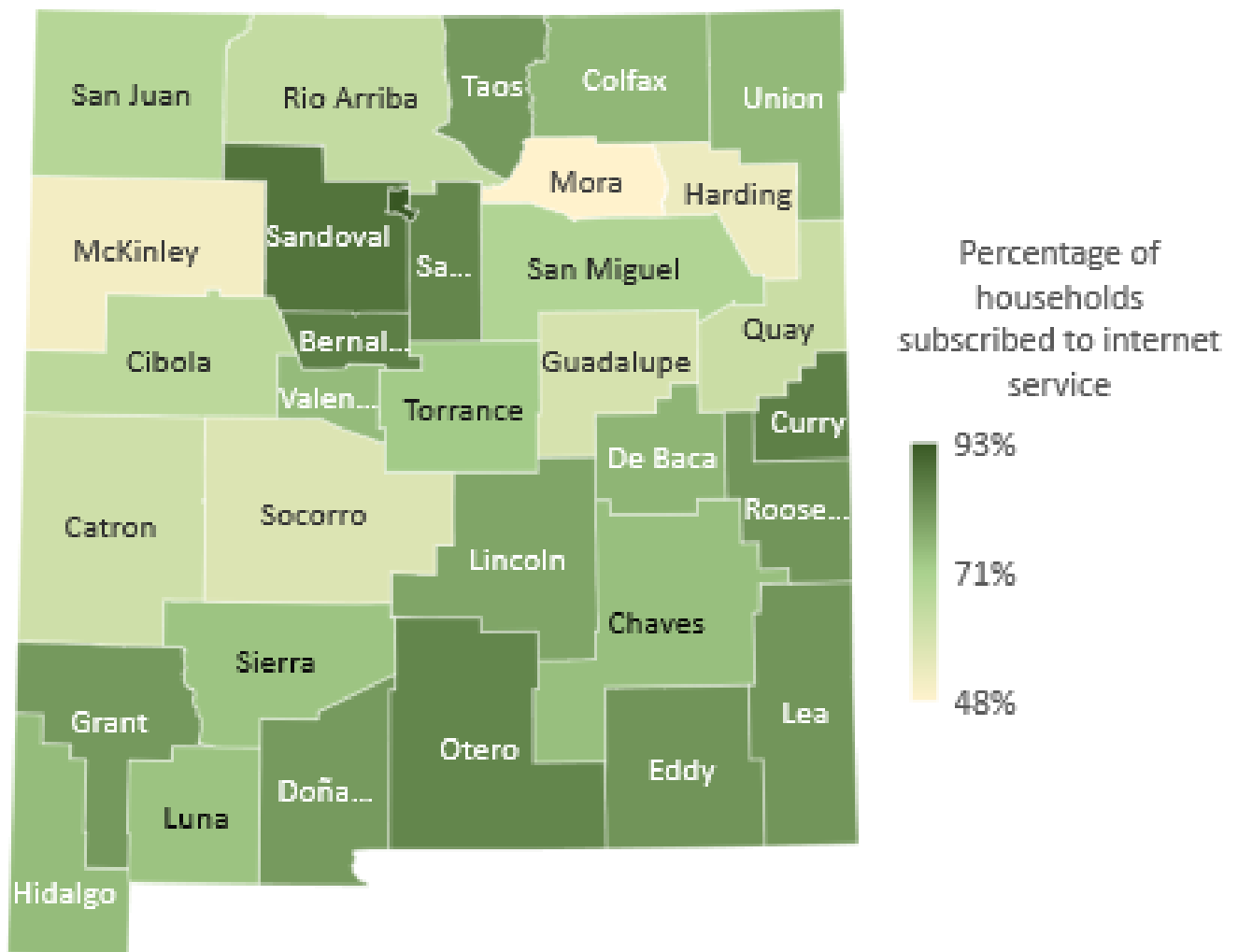
[6] The American Community Survey does not distinguish by technology or speed. This figure represents all households with internet subscriptions, including DSL.
[7] The American Community Survey does not distinguish by speed. This figure includes households with DSL service.
[8] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

**Figure 4: Internet service adoption by county (all technologies)[9]**

**New Mexico households with internet subscriptions (by County)**



Chart data (county: percentage):
- Bernalillo: 85.6%
- Catron: 60.6%
- Chaves: 73.9%
- Cibola: 65.5%
- Colfax: 75.3%
- Curry: 85.4%
- De Baca: 75.7%
- Doña Ana: 80.6%
- Eddy: 81.7%
- Grant: 80.8%
- Guadalupe: 58.6%
- Harding: 52.5%
- Hidalgo: 74.4%
- Lea: 81.5%
- Lincoln: 78.6%
- Los Alamos: 93.1%
- Luna: 73.1%
- McKinley: 50.9%
- Mora: 48.0%
- Otero: 84.4%
- Quay: 61.9%
- Rio Arriba: 63.6%
- Roosevelt: 81.5%
- San Juan: 67.1%
- San Miguel: 68.3%
- Sandoval: 87.7%
- Santa Fe: 84.3%
- Sierra: 72.9%
- Socorro: 57.1%
- Taos: 80.9%
- Torrance: 71.7%
- Union: 74.9%
- Valencia: 74.5%

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[9] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

**Table 3: Internet service adoption by county (all technologies)[10]**

| County | Percentage |
|--------|-----------|
| Bernalillo | 85.6% |
| Catron | 60.6% |
| Chaves | 73.9% |
| Cibola | 65.5% |
| Colfax | 75.3% |
| Curry | 85.4% |
| De Baca | 75.7% |
| Doña Ana | 80.6% |
| Eddy | 81.7% |
| Grant | 80.8% |
| Guadalupe | 58.6% |
| Harding | 52.5% |
| Hidalgo | 74.4% |
| Lea | 81.5% |
| Lincoln | 78.6% |
| Los Alamos | 93.1% |
| Luna | 73.1% |
| McKinley | 50.9% |
| Mora | 48.0% |
| Otero | 84.4% |
| Quay | 61.9% |
| Rio Arriba | 63.6% |
| Roosevelt | 81.5% |
| San Juan | 67.1% |
| San Miguel | 68.3% |
| Sandoval | 87.7% |
| Santa Fe | 84.3% |
| Sierra | 72.9% |
| Socorro | 57.1% |
| Taos | 80.9% |
| Torrance | 71.7% |
| Union | 74.9% |
| Valencia | 74.5% |

[10] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

**Figure 5: Internet service adoption by county (wireline service)[11]**



New Mexico households with wireline internet subscriptions (by County)

| County | Percentage |
|--------|-----------|
| Bernalillo | 71.0% |
| Catron | 27.0% |
| Chaves | 49.4% |
| Cibola | 36.4% |
| Colfax | 52.3% |
| Curry | 64.3% |
| De Baca | 48.3% |
| Doña Ana | 64.9% |
| Eddy | 58.7% |
| Grant | 56.7% |
| Guadalupe | 42.1% |
| Harding | 42.6% |
| Hidalgo | 48.7% |
| Lea | 60.8% |
| Lincoln | 55.4% |
| Los Alamos | 83.8% |
| Luna | 40.6% |
| McKinley | 28.8% |
| Mora | 24.8% |
| Otero | 64.6% |
| Quay | 46.1% |
| Rio Arriba | 39.9% |
| Roosevelt | 61.9% |
| San Juan | 49.9% |
| San Miguel | 41.8% |
| Sandoval | 67.6% |
| Santa Fe | 65.8% |
| Sierra | 48.2% |
| Socorro | 38.9% |
| Taos | 61.0% |
| Torrance | 47.8% |
| Union | 57.1% |
| Valencia | 54.5% |

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[11] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

**Table 4: Internet service adoption by county (wireline service)[12]**

| County | Percentage |
|---|---|
| Bernalillo | 71.0% |
| Catron | 27.0% |
| Chaves | 49.4% |
| Cibola | 36.4% |
| Colfax | 52.3% |
| Curry | 64.3% |
| De Baca | 48.3% |
| Doña Ana | 64.9% |
| Eddy | 58.7% |
| Grant | 56.7% |
| Guadalupe | 42.1% |
| Harding | 42.6% |
| Hidalgo | 48.7% |
| Lea | 60.8% |
| Lincoln | 55.4% |
| Los Alamos | 83.8% |
| Luna | 40.6% |
| McKinley | 28.8% |
| Mora | 24.8% |
| Otero | 64.6% |
| Quay | 46.1% |
| Rio Arriba | 39.9% |
| Roosevelt | 61.9% |
| San Juan | 49.9% |
| San Miguel | 41.8% |
| Sandoval | 67.6% |
| Santa Fe | 65.8% |
| Sierra | 48.2% |
| Socorro | 38.9% |
| Taos | 61.0% |
| Torrance | 47.8% |
| Union | 57.1% |
| Valencia | 54.5% |

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[12] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

**Figure 6: Internet service adoption by county (mobile only)[13]**

## New Mexico households with mobile internet subscriptions only (by County)



Bar chart showing percentage of New Mexico households with mobile internet subscriptions only, by county:

| County | Percentage |
|---|---|
| Bernalillo | 10.8% |
| Catron | 10.8% |
| Chaves | 16.9% |
| Cibola | 16.0% |
| Colfax | 15.1% |
| Curry | 17.6% |
| De Baca | 8.1% |
| Doña Ana | 10.6% |
| Eddy | 17.9% |
| Grant | 14.5% |
| Guadalupe | 10.2% |
| Harding | 6.9% |
| Hidalgo | 15.7% |
| Lea | 15.7% |
| Lincoln | 13.3% |
| Los Alamos | 5.6% |
| Luna | 27.5% |
| McKinley | 17.3% |
| Mora | 15.3% |
| Otero | 11.7% |
| Quay | 7.3% |
| Rio Arriba | 9.0% |
| Roosevelt | 13.0% |
| San Juan | 11.2% |
| San Miguel | 13.1% |
| Sandoval | 13.7% |
| Santa Fe | 9.8% |
| Sierra | 16.6% |
| Socorro | 9.6% |
| Taos | 8.1% |
| Torrance | 10.9% |
| Union | 10.1% |
| Valencia | 12.7% |

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[13] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

**Table 5: Internet service adoption by county (mobile only)**[14]

| County | Percentage |
|--------|------------|
| Bernalillo | 10.8% |
| Catron | 10.8% |
| Chaves | 16.9% |
| Cibola | 16.0% |
| Colfax | 15.1% |
| Curry | 17.6% |
| De Baca | 8.1% |
| Doña Ana | 10.6% |
| Eddy | 17.9% |
| Grant | 14.5% |
| Guadalupe | 10.2% |
| Harding | 6.9% |
| Hidalgo | 15.7% |
| Lea | 15.7% |
| Lincoln | 13.3% |
| Los Alamos | 5.6% |
| Luna | 27.5% |
| McKinley | 17.3% |
| Mora | 15.3% |
| Otero | 11.7% |
| Quay | 7.3% |
| Rio Arriba | 9.0% |
| Roosevelt | 13.0% |
| San Juan | 11.2% |
| San Miguel | 13.1% |
| Sandoval | 13.7% |
| Santa Fe | 9.8% |
| Sierra | 16.6% |
| Socorro | 9.6% |
| Taos | 8.1% |
| Torrance | 10.9% |
| Union | 10.1% |
| Valencia | 12.7% |

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[14] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

## 2.3 Device ownership by county

Device ownership is a key element of digital equity and digital inclusion. The following table identifies the percentage of households in each county that own a laptop or desktop computer. This analysis considers a laptop or desktop computer to be the minimum requirement for effective use of internet service for education, health care, job searches, and other key activities.

**Figure 7: Map of percentage of households with laptop/desktop**
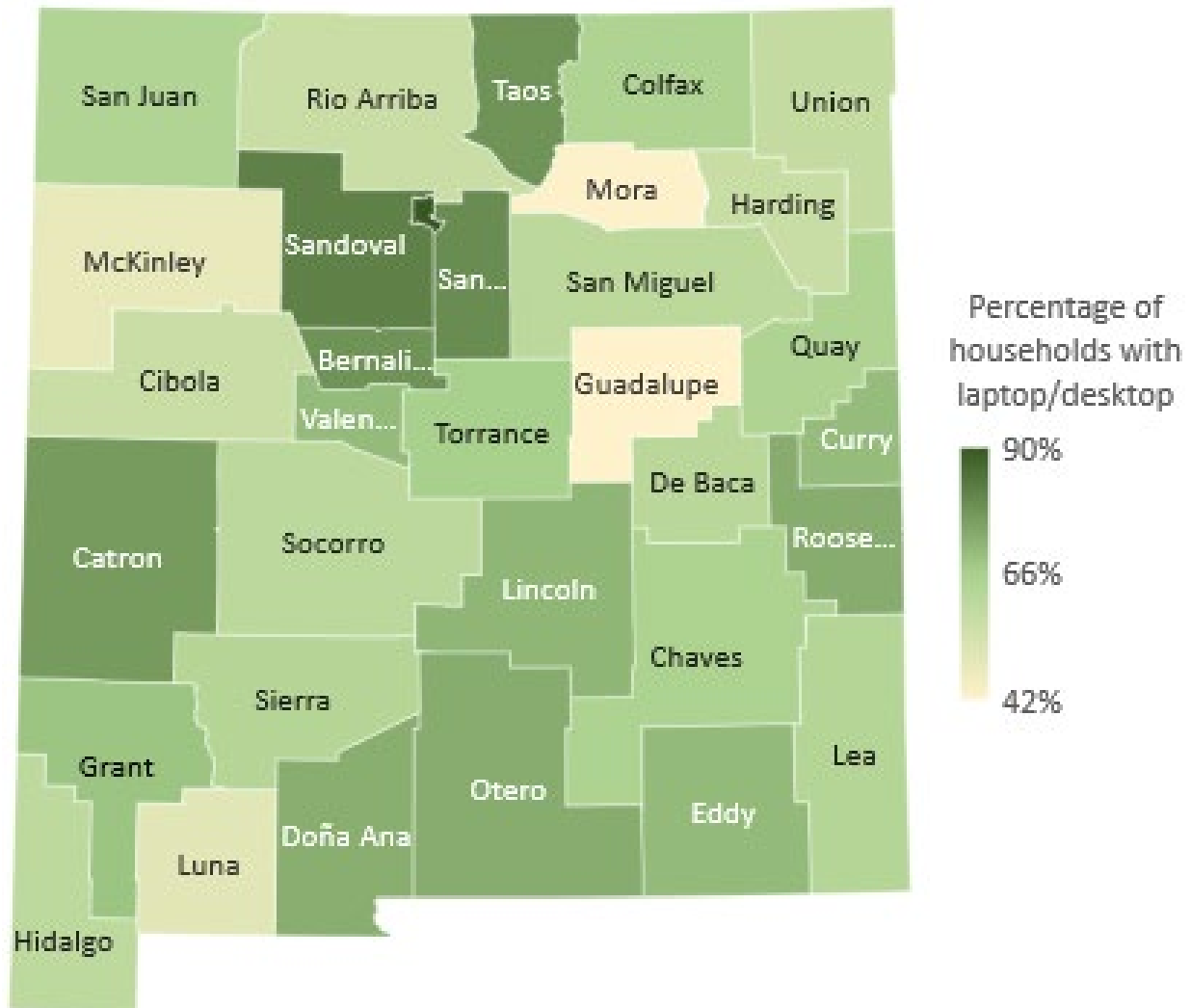
**Table 6: Percentage of households with laptop/desktop[15]**

| County | Percentage |
|--------|-----------|
| Bernalillo | 78.1% |
| Catron | 76.6% |
| Chaves | 65.0% |
| Cibola | 57.1% |
| Colfax | 64.4% |
| Curry | 70.0% |
| De Baca | 61.4% |
| Doña Ana | 72.8% |
| Eddy | 70.5% |
| Grant | 68.6% |
| Guadalupe | 42.3% |
| Harding | 57.4% |
| Hidalgo | 60.3% |
| Lea | 63.0% |
| Lincoln | 71.3% |
| Los Alamos | 89.9% |
| Luna | 50.3% |
| McKinley | 48.5% |
| Mora | 42.7% |
| Otero | 73.1% |
| Quay | 64.2% |
| Rio Arriba | 57.1% |
| Roosevelt | 73.1% |
| San Juan | 63.8% |
| San Miguel | 60.8% |
| Sandoval | 81.5% |
| Santa Fe | 79.4% |
| Sierra | 62.7% |
| Socorro | 60.7% |
| Taos | 78.2% |
| Torrance | 66.2% |
| Union | 58.6% |
| Valencia | 70.4% |

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[15] Source: U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html.

## 2.4 Broadband affordability by county

As a proxy for broadband affordability, OBAE analyzed household eligibility in the FCC's Affordable Connectivity Program (ACP), which is available to households earning 200 percent or less than the federal poverty line (among other eligibility factors).[16] The following map and table compares household eligibility and enrollment in the ACP as an indicator of the ratio of low-income households that are benefitting from the program—and the low-income households that could receive this benefit if they choose to enroll in the future.

**Figure 8: Map of ACP enrollment by county[17]**



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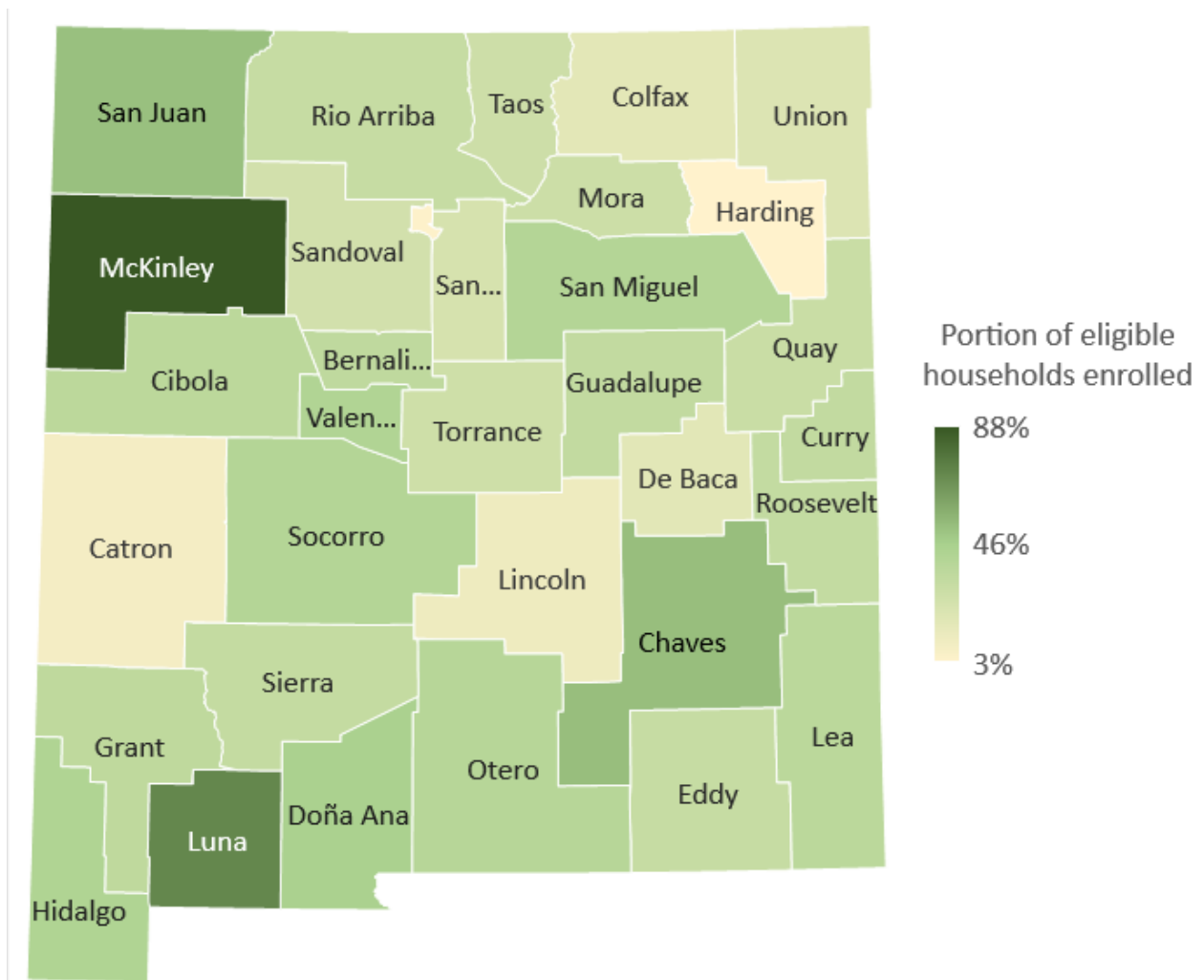
[16] "Affordable Connectivity Program: Do I Qualify?" USAC, https://www.affordableconnectivity.gov/do-i-qualify/.

[17] Sources: "ACP Enrollment and Claims Tracker," Universal Service Administrative Co., August 2023 data, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/. Household eligibility estimates are based on U.S. Census county-level data on poverty levels and other eligibility data.

**Table 7: ACP enrollment[18]**

| County | Enrolled households | Estimated percentage of eligible households enrolled |
|---|---|---|
| Bernalillo | 49,875 | 35% |
| Catron | 123 | 8% |
| Chaves | 6,259 | 52% |
| Cibola | 2,566 | 36% |
| Colfax | 847 | 17% |
| Curry | 3,690 | 33% |
| De Baca | 102 | 17% |
| Doña Ana | 23,405 | 45% |
| Eddy | 3,930 | 31% |
| Grant | 2,293 | 35% |
| Guadalupe | 378 | 33% |
| Harding | 10 | 3% |
| Hidalgo | 414 | 42% |
| Lea | 4,894 | 37% |
| Lincoln | 918 | 12% |
| Los Alamos | 136 | 4% |
| Luna | 3,717 | 72% |
| McKinley | 14,098 | 88% |
| Mora | 318 | 28% |
| Otero | 5,561 | 38% |
| Quay | 844 | 29% |
| Rio Arriba | 2,397 | 31% |
| Roosevelt | 1,442 | 32% |
| San Juan | 12,942 | 51% |
| San Miguel | 2,339 | 40% |
| Sandoval | 6,465 | 25% |
| Santa Fe | 6,780 | 23% |
| Sierra | 1,176 | 32% |
| Socorro | 1,374 | 40% |
| Taos | 2,288 | 28% |
| Torrance | 880 | 27% |
| Union | 219 | 20% |
| Valencia | 6,250 | 42% |

[18] Sources: "ACP Enrollment and Claims Tracker," Universal Service Administrative Co., August 2023 data, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/. Household eligibility estimates are based on U.S. Census county-level data on poverty levels and other eligibility data.

# 3   Progress achieved on implementation of the statewide broadband access plan

The State's Three-Year Broadband Plan was published on January 1, 2023.[19] This section presents an annual update on progress achieved.

### 3.1.1   Key goals

The Broadband Plan aims to achieve four major goals, listed below.

| Goal 1) Universal Availability of Terrestrial-Based High-Speed, Scalable Broadband Networks |
|---|
| • New Mexican residents and businesses should have access to terrestrial-based high-speed broadband networks that reliably deliver at least 100/20 Mbps (download/upload) by 2029 – the time period when planned grant-funded broadband networks should be deployed. This speed constitutes the current federal definition of "served". |
| • All terrestrial networks funded by the State's grant programs should offer at least 100/100 Mbps unless the applicant can demonstrate extraordinary circumstances limiting this speed. In such cases, the networks must offer 100/20 Mbps and be scalable to at least 100/100 Mbps. |
| • To meet the 100/100 Mbps standard, New Mexico aims to prioritize fiber-based networks – given their distinct advantages of being sustainable, "future ready" and the relatively lower operating and upgrade expenditures. |
| • For highly remote communities where terrestrial networks cannot be deployed due to extraordinarily high costs or technical barriers, the State will consider initiatives to foster non-terrestrial solutions. |

| Goal 2) Widespread Adoption and Meaningful Usage of the Internet |
|---|
| • All New Mexicans should have an opportunity to adopt the Internet by 2026. This can occur at home, an office, a community institution, or through a mobile device. All New Mexicans should be offered the support to overcome adoption challenges – which may include programs to enable affordability, obtain devices, receive digital literacy training, or have high-quality access at a nearby community institution. |
| • All New Mexican broadband adopters should meaningfully use the Internet's myriad of valuable digital applications to advance their social and economic standing – i.e., health, education, workforce, civic and social services, etc. The quality and innovation of online resources increase annually, thereby yielding valuable tools for residents (e.g., e-learning, telehealth, workforce skills development, etc.) and businesses (e.g., online marketplaces, cloud-hosted applications performing real-time functionality, etc.). |

| Goal 3) Advancement of Next-Generation Statewide Networks |
|---|
| • Last-mile broadband networks are critical, but not alone in importance. New Mexico's ambition of being the most connected State necessitates several other pieces, including: <br> a) Statewide Education Network (SEN) that connects all interested public schools and public libraries together through scalable, reliable, affordable and secure Internet, and a sister initiative, the Pueblo Education Network (PEN) which is focused on Tribal controlled schools and libraries; <br> b) all New Mexican communities should reside in close proximity to open-access middle-mile networks that offer reasonably priced, high-speed lit services and dark fiber to facilitate backhaul and support private links for government, large enterprises, data centers, educational institutions, and others requiring at least 1 Gbps connectivity; |

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[19] "New Mexico Broadband Plan Update," OBAE, January 1, 2023, https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf.

| | |
|---|---|
| c) universal mobile 5G coverage that spans across all rural communities and highly-trafficked roadways; and d) networks architectures that offer resiliency, redundancy, and security. The end result will involve an interconnected network system that provides widespread connectivity, safety and security, resiliency, and customer choice through public-private collaboration. | |

| **Goal 4) Program Stewardship** |
|---|
| • OBAE leadership and staff are committed to the utmost transparency and accountability of its programs. Moreover, OBAE will actively monitor its awardees and hold them accountable for all programmatic and compliance requirements. |

### 3.1.2 Strategic priorities and initiatives

The Broadband Plan included 13 key strategic priorities that advance these four primary goals. These priorities involve 22 major initiatives, along with an action plan and key performance indicators to measure progress. This update provides a summary of key achievements over the past nine months. A more detailed Annual Review will be provided by January 1, 2024.

| Strategic Priorities | Major Initiatives for 2023 |
|---|---|
| **Goal: Universal Broadband Availability** | |
| ❖ Grant Funding to Enable Broadband Deployment | • Connect New Mexico Pilot Program (Award Finalization and Post-Award Management)<br>• Connect New Mexico Fund (Program Launch and Awards Issuance)<br>• Broadband Equity, Access and Deployment (Planning Stage)<br>    ○ Five-Year Action Plan for NTIA BEAD Program<br>    ○ Initial Proposal Volume 1 released for public comment<br>    ○ Initial Proposal Volume 2 – Due December 28<br>    ○ Final Proposal – Due TBD – Estimated 2025 |
| ❖ Current and Accurate Broadband Maps | • Robust Data for Spatial Data Management and Analytics<br>• Evolutions of the State Broadband Map<br>• Launch of Analytic and Decision Support Tools to Empower All Stakeholders |
| ❖ Removing Deployment Barriers Related to Permits, Rights Of Way and Pole Attachments (PROP) | • Permit and Rights of Way Streamlining<br>• Modernization of Pole Attachment Policies and Practices<br>• NMDOT Rights of Way Fee Waiver Program for In-Kind Fiber and/or Conduit Contribution |
| ❖ Workforce Development | • "All Hands on Deck": Statewide Broadband Workforce Development Strategy |
| ❖ Technical Assistance Programs | • Technical Assistance Programs to Empower Local Communities |
| **Goal: Broadband Adoption and Meaningful Usage** | |
| ❖ Participation in NTIA Programs for Digital Equity | • Development of the Digital Equity Plan |
| ❖ Broadband Affordability | • Robust Participation in the FCC Affordable Connectivity Program |
| ❖ Digital Equity and Inclusion for Tribal Communities | • Tribal Community Digital Inclusion Program |

| Strategic Priorities | Major Initiatives for 2023 |
|---|---|
| *Goal: Next-Generation Statewide Networks* | |
| ❖ Statewide Middle-Mile Networks | • Launch of Statewide Education Network<br>• Public-Private Investment Program for Priority Middle-Mile Routes |
| ❖ Coverage Expansion of 5G Mobile Broadband | • Rural 5G Coverage Acceleration |
| ❖ Network Resiliency and Security | • Statewide Network Resiliency and Security Program |
| *Goal: Program Stewardship* | |
| ❖ OBAE Transparency and Accountability | • Rulemaking for Broadband Grant Programs<br>• OBAE Annual Progress Report<br>• Program Evaluation and Socioeconomic Impact Assessment |
| ❖ Grantee Accountability for All Programmatic and Compliance Requirements | • Comprehensive System to Foster Grantee Accountability |

### 3.1.3 Progress updates for strategic priorities and key initiatives (year to date)

#### 3.1.3.1 *Grant funding to enable broadband deployment*

OBAE team completed the Connect New Mexico Pilot Program, which involves a $117 million grant program. It now looks forward to soon launching the Connect New Mexico Fund, which involves $70 million.

OBAE submitted the Five-Year Action Plan to NTIA on-time. The Plan incorporates a comprehensive needs assessment and establishes the State's goal to deliver broadband to all residences of New Mexico. This constituted one of several key requirements to be responsive to the requirements established by the National Telecommunications and Information Administration (NTIA) under the Infrastructure Investment and Jobs Act. [20] After meeting all the requirements, the State will qualify for the $675 million, the amount which has been designated by NTIA. [21]

| Initiative | Connect New Mexico Pilot Program |
|---|---|
| • Completed all award assignments in September 2023 – 13 months after launching the program.<br>• Awarded 19 projects – on which 18 involved fiber deployments and one involved an advanced generation of fixed wireless.<br>• Projects constitute a total budget of $189 million – comprising of $116.24 million in grant funding and matched by $72.76 million in match funding. | |

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[20] Five Year Action Plan Guidance, https://broadbandusa.ntia.doc.gov/sites/default/files/2022-09/BEAD_Five-Year_Action_Plan_Guidance_1.pdf.

[21] "Biden-Harris Administration Announces State Allocations for $42.45 Billion High-Speed Internet Grant Program as Part of Investing in America Agenda," NTIA press release, June 26, 2023, https://ntia.gov/press-release/2023/biden-harris-administration-announces-state-allocations-4245-billion-high-speed.

- Projects involve the deployment of 1,340 fiber miles; to illustrate this size, this involves 3.6 times the State's distance from north to south (a distance of 370 miles).
- Over 22,500 premises will be passed, which includes households, businesses and community institutions.
- Projects span across 14 of the State's 33 counties.
- Awarded projects cover six pueblos (Jemez, Laguna, Nambe Santo Domingo, Santa Ana, Ohkay Owingeh) and one reservation (Ramah Navajo).
- The program funded three electric cooperatives which will enable them to initiate their entry into the broadband services market.
- Signed Grant Agreement for all but one awardee from Wave One and Two. Aim to complete Award Agreements for Wave Three by October-end.
- Note: Two applications from Comcast in Wave One remain open due to a proceeding to remove overlap premises found to be "served".

| Initiative | Connect New Mexico Fund |
|---|---|

- Aim to release NOFO for the Fund in the near-term, along with the program materials (application, scoring framework, etc.) The due dates for applications is still being determined.

| Initiative | Five Year Action Plan |
|---|---|

- OBAE submitted the Five-Year Action plan to NTIA on August 28, 2023.
- Found that 84% of the State's locations can receive, or will receive through federal enforceable commitments, 100/20 Mbps or greater. Also found that eight percent of locations are unserved, or receiving speeds under 25/3 Mbps. Also found that another eight percent are underserved, or receiving speeds between 25/3 and 100/20 Mbps.
- A preliminary analysis of the FCC data (May 2023) indicates that the total capital cost for extending high-speed, end-to-end fiber broadband to both unserved and underserved locations is approximately $2.81 billion to $4.12 billion over the period of performance.

### 3.1.3.2  *Current and accurate broadband maps*

OBAE has completed several projects that foster an accurate assessment of the location, characteristics, and status of available broadband technologies and speeds across the State, and identifies grant-funded networks that will be deployed in the near future. OBAE also engaged in a robust effort to challenge the FCC Broadband Serviceable Location (BSL) Fabric and Broadband Availability Data, which involved a variety of outreach efforts, data analytics, and communication with the FCC. The net result involved removing locations deemed to be served or underserved, which allows for more units that qualify for BEAD funding. Furthermore, OBAE deployed a centralized public mapping interface, which aggregates several data sets and provides user-friendly tools to access and analyze the data. Finally, OBAE initiated several stakeholder outreach efforts to discern the broadband-based GIS needs of New Mexico, which has shaped a structured, needs-based roadmap of the tools and resources that OBAE will launch over the next two years.

| Initiative | Robust Data for Spatial Data Management and Analytics |
|---|---|

| | |
|---|---|

> **Challenge of FCC Broadband Serviceable Location (BSL) Fabric and Broadband Availability Data**
- Developed a SQL geodatabase model to manage the various states" of data about locations and internet service, including FCC claims, data challenges, and adjudications of those claims.
- Conducted one-on-one sessions and workshops on methods and data for assessing FCC map accuracies and reporting issues. Compiled and submitted bulk challenges for multiple local and Tribal entities.
- Publish a public-facing dashboard [Federal Service Availability Status for NM (arcgis.com)](https://arcgis.com) enabling users to query by various areas of interest to return NM's best available information about FCC BSLs and service availability at those locations.
- Submit over 50,000 location and almost 200,000 service availability challenges after a statewide assessment of data. Assess challenge methodologies relative to final FCC adjudication of the challenges. These findings/lessons are currently being reviewed with FCC and shared with stakeholders. Advocating with FCC on behalf of stakeholders when FCC data appear to be systematically in error.
- Apply data analysis results to the proposed modifications in the NTIA BEAD Initial Proposal Volume 1, and scope the state challenge tool to be used in grant-making of the NTIA BEAD allocation to NM
- On-track to publish, by the end of 2023, a public dashboard of un/under/served in NM that accounts for those already funded by existing grant programs (e.g., those with 'enforceable commitments')

| Initiative | Evolutions of the State Broadband Map |
|---|---|

- A centralized public mapping interface (maps.connect.nm.gov), designed in coordination with the OBAE website, was deployed, which provides a one-stop-shop for accessing broadband map resources for NM.
- A data inventory and set of standard operating procedures have been developed to guide the routine planning and maintenance of mapping tools and resources. A "functional data taxonomy" ties data and geographic information system (GIS) functions to OBAE's strategic initiatives and business functions.
- Data are gradually being published in the new OBAE enterprise geodatabase for public access, including detailed metadata and a simplified inventory of relevant data
- Data aggregation is underway to publish Ookla speed test results and FCC broadband map data at scales appropriate to targeted user groups and licensing levels.
- New data currently being ingested and/or created: service subscriptions for community anchor institutions, indicators of digital equity, and middle mile resources and plans.
- PDF's are in production to provide mapping data for web site users who do not have broadband.
- A critical success factor (EDAC contract) has delayed some KPI's which are expected to be back on track by the end of 2023.

| Initiative | Launch of Analytic and Decision Support Tools to Empower All Stakeholders |
|---|---|

- Twenty-two stakeholders are using or have been directly engaged with the Broadband Community Mapping Hub. This web environment provides for "secure data consortiums" of users to assemble data for awareness and discussion. Additional stakeholders are on-track to be engaged through the remainder of 2023.
- OBAE continues to participate in and lead priority technical working groups/meetings, and the advisory membership of the Mapping and Data Evaluation Working group has doubled. Logistical organization of this forum has improved and is on-track to be optimized by the end of 2023.
- The GIS needs assessment including an implementation roadmap is complete and is being applied by the team regularly to guide ongoing work and priorities. This process included 14 interviews with key

stakeholders and research of the web-presence of other state broadband offices.

- A secure, enterprise-level GIS environment was built on a virtual machine platform, which includes a SQL geodatabase for hosting and processing core data. These data include statewide speed test results for the past two years, updated monthly, and the broadband serviceable location (BSL) data, including claimed and estimated broadband service availabilities. Datasets are continuously being loaded and processed to support decision-making as the programmatic questions evolve.
- A requirements assessment of map and tool resources for NM tribes is underway as part of a Governor's Task force established in 2023.
- The initiative is on-track to hire three geospatial data management and analysis positions by the end of 2023.

### 3.1.3.3 *Removing deployment barriers related to permits, rights-of-way, and pole attachments (PROP)*

OBAE has advanced three key initiatives to remove barriers for broadband deployment as related to permitting, rights of way and pole attachments. The specific activities include research and analytics, creation and/or moderation of working groups, development of high-impact legislative proposals, and improved systems and processes. The outcomes and ultimate success are contingent upon the participation of several stakeholders.

| Initiative | Permit and Rights of Way Streamlining |
|---|---|
| <ul><li>Created PROP Working group composed of subject matter experts (state agencies, federal agencies, municipalities, Tribal, ISPs, and Electric Utilities/Cooperatives meeting regularly to discuss policy recommendations and solutions.</li><li>OBAE developed a draft proposed legislative language to extend existing utilities (electric/phone) easements and ROWs for the 2024 legislative session.</li><li>OBAE has continued to follow up with NMDOT regarding rulemaking on reduced costs to use the right of way and easements</li><li>Developed a list of recommendations for policy and potential legislative action at state and federal level, including reducing cultural and environmental study requirements (as possible/appropriate) in pre-disturbed roadway and utility corridors.</li></ul> | |
| Initiative | Modernization of Pole Attachment Policies and Practices |
| <ul><li>Created PROP Working group composed of subject matter experts (state agencies, federal agencies, municipalities, Tribal, ISPs and Electric Utilities/Cooperatives meeting regularly to discuss solutions</li><li>OBAE developed draft legislative language to develop a consistent and transparent approach for "Make Ready", utility poles replacement models, utility poles attachments fees, and to create a pole replacement fund to assist with unexpected costs related to utility poles replacements. Language is being reviewed with all stakeholders, including ISPs, Electric Utilities – Cooperatives and Investor Owned Utilities, municipalities and municipality-owned electric utilities.</li><li>Developing a specialized support structure to provide supplemental resources to assist with permit-related technical tasks: surveys, evaluations and engineering. This work by specialized vendors will help small utilities deal with the permit and engineering work load expected to increase significantly in the near future as a result of state and federal investments in broadband infrastructure expansion.</li></ul> | |

| Initiative | NMDOT Rights of Way Fee Waiver Program for In-Kind Fiber and/or Conduit Contribution |
|---|---|

- Developed and supported passage of legislation (HB160) allowing the NM Department Of Transportation to waive ROW fees for broadband infrastructure deployment, especially in "Unserved" areas.
- Actively coordinating with the NM DOT on the implementation of a "Dig Once" policy where all suitable current and future road construction projects will include conduit and possibly fiberoptic cable.
- Working with NM Department of Transportation coordinating the development, testing and implementation of an electronic permitting system (ePermit). The new system will improve permitting process transparency and consistency across all NM DOT districts.
- Working to emulate the Utah DOT system of "asset tracking and swapping". Will visit Utah DOT to gather requirements for an In-Kind fiber/conduit contribution tracking system, based on the functional system there.

### 3.1.3.4 *Workforce development*

A large, highly skilled workforce constitutes a critical success factor to allow for the planning, design, deployment, testing, and operations of broadband networks necessary to achieve the universal availability of high-speed Internet. According to the U.S. Chamber of Commerce, New Mexico has only "68 available workers for every 100 open jobs." Several small ISPs noted that they have difficulty finding and retaining a skilled workforce. OBAE has been proactive in addressing the potential workforce shortages. OBAE has taken an "All Hands on Deck" approach to foster the development of a workforce.

| Initiative | "All Hands on Deck": Statewide Broadband Workforce Development Strategy |
|---|---|

- Submitted a request and received funding to start broadband workforce development
- Discussed state of workforce challenges and opportunity with the Tribal consultations and ISP meetings held in 2023.
- Gathered Federal and industry broadband employment data and shared with state government, industry, and higher education
- Identified potential assets for workforce development among higher education institutions and private entities providing training and certifications related to fiber deployment, including through partnerships with local or State government entities.
- Leveraged existing and formed new relationships to promote workforce development efforts and also to use its grant program to encourage service providers to hire and train employees as part of their BEAD projects.
- OBAE is working across state agencies with Department of Workforce Solutions to connect existing programs such as the Pre-Apprenticeship Program to enable workforce development efforts t.
- OBAE also anticipates playing an important role in promoting available training and driving interest in employment opportunities in the broadband deployment sector.

### 3.1.3.5 *Technical assistance programs*

OBAE continues to provide active support to a variety of stakeholders – service providers, community officials, academia, etc. The general case involves a broadband need (e.g., lack of service availability or reliability), and the development of various strategies to address that need. Alternatively, a case may involve an existing opportunity where the OBAE team applies a structured set of consideration factors to evaluate its merits. The stakeholders have spanned residential communities, business locations, and community institutions.

| Initiative | Technical Assistance Programs to Empower Local Communities |
|---|---|
| <ul><li>Completed outreach to all 23 Tribes.</li><li>Completed outreach to 15 of 33 Counties.</li><li>Converted EDA TAP Contract to Interactive Broadband Workbook due in next 12 months</li><li>Worked with over 10 executive Branch Agencies to Identify Anchor institutions that need broadband assistance.</li><li>Worked with over 15 providers on their broadband plans and applications.</li><li>Assisted 5 Tribes with applications to Pilot Projects.</li><li>Assisted 7 NTIA tribal network awardees.</li></ul> | |

### 3.1.3.6 *Participation in NTIA programs for digital equity*

OBAE engaged in a myriad set of projects to foster broadband adoption and meaningful usage. Key achievements included securing planning grant funding from NTIA; engaging in several fact-gathering efforts to understand adoption barriers and identify best practices and strategies to remove these barriers; fostering stakeholder collaboration; promoting awareness on key statewide resources.

| Initiative | Development of the Digital Equity Plan |
|---|---|
| <ul><li>Secured federal NTIA Digital Equity Planning grant funding</li><li>Developed initial Stakeholder Engagement Strategic Plan</li><li>Contracted with CTC to write the State Digital Equity Plan</li><li>Submitted NM BB Knowledge & Digital Equity Analysis & Plan Aug 1</li><li>Attending NTIA Digital Equity Office Hours, NTIA State Leadership Meetings, & the NTIA State Leaders Conference, as well as NDIA/Federal Reserve Digital Equity regional trainings, and meeting regularly with NTIA State, Tribal, & Digital Equity Federal Program Officers</li><li>Digital Equity & Inclusion working group meeting every 2 weeks</li><li>Launched Connect New Mexico website https://connect.nm.gov with 130+ public/private pages in English/Spanish, & 14,500+ unique visitors so far</li><li>Launch social media page at https://www.facebook.com/NMOBAE.</li><li>Launch YouTube channel</li><li>Publishing both Connect New Mexico & Tribal Broadband newsletters</li><li>Launched Map Challenge targeted direct mail campaign to 295,635 households in unserved areas & OBAE submitted a total of 246,692 availability/location challenges of which 174,499 were accepted.</li></ul> | |

- Hosted Broadband Day at the Legislature Feb 15 for 400 people with info tables in East and West Wings, lunch presentations, & Gov. Michelle Lujan-Grisham proclamation of March as Connect New Mexico Month to kick off Spring Sprint series of outreach events.
- Hosted Six Regional Meetings
    - April 17 - SE Region 5 meeting in Alamogordo (Otero County)
    - April 18 - Central Region 3 meeting in Los Lunas (Valencia County)
    - May 11 - NE Region 4 meeting in Springer (Colfax County)
    - May 12 - SW Region 5 meeting in Las Cruces (Doña Ana County)
    - May 15 - NW Region 1 meeting in Farmington (San Juan County)
    - May 16 - NC Region 2 meeting in Hernandez (Rio Arriba County)
- Hosted 13 Listening Sessions (Webinars)
- Co-hosted "Internet for All: New Mexico Broadband Summit" and Tribal Roundtable with NTIA Director Alan Davidson May 24 at Buffalo Thunder in Pojoaque Pueblo in Santa Fe County w/ 372 participants, which was the highest-attended local coordination event with NTIA in the nation

### *3.1.3.7 Broadband affordability*

OBAE continues to foster participation in the FCC Affordable Connectivity Program.

| Initiative | Robust Participation in the FCC Affordable Connectivity Program |
| --- | --- |
| <ul><li>Conducted an inventory of all New Mexican fixed and mobile broadband service providers that participate in the ACP; found over 100 that do.</li><li>Found 58 providers that offer a device discount.</li><li>The following were awarded funding to support ACP enrollment initiatives and are currently mobilizing regional programs in New Mexico to promote and support affordability:<br>National Competitive Outreach Program (NCOP)<br>  - City of Albuquerque – $400,000<br>  - New Mexico Black Leadership Council, Albuquerque – $400,000<br>  - El Paso Community Foundation – $300,000<br>  - Multi-state award to Texas includes Las Cruces)<br>Tribal Competitive Outreach Program (TCOP)<br>  - Pueblo of Jemez – $379,234<br>  - Pueblo of Zuni – $325,000</li></ul> | |

### *3.1.3.8 Digital equity and inclusion for Tribal communities*

OBAE had developed and aggressively implemented a comprehensive plan to foster digital equity for Tribal communities. The achievements included hosting tribal consultations with Tribal leadership; planning and launching several summits; mapping sessions to confirm unserved and underserved premises; providing technical assistance for several projects; and making grant award announcements for broadband infrastructure.

| Initiative | Tribal Community Digital Inclusion Program |
|---|---|
| <ul><li>Awarded grants directly to five pueblos (Jemez, Laguna, Nambe, Santa Ana, Santo Domingo) and grants to two private broadband service providers that will be serving Ohkay Owingeh and Ramah Navajo.</li><li>Co-hosted "Internet for All: New Mexico Broadband Summit" and Tribal Roundtable with NTIA Director Alan Davidson May 24 at Buffalo Thunder in Pojoaque Pueblo in Santa Fe County w/ 372 participants, which was the highest-attended local coordination event with NTIA in the nation</li><li>19 of 24 official Tribal Consultations have occurred</li><li>100% of NM tribes have been reached via technical assistance, mapping, grant writing guidance, etc.</li><li>Facilitate twice a month the Connect NM Tribal Working Group</li><li>Attendance and active engagement at four (4) NM Indian Affairs Department Dashboard Taskforce Meetings</li><li>Over 80 attendees at inaugural statewide tribal broadband convening</li><li>[17 tribal broadband electronic newsletters published](#).</li><li>OBAE participating in Pueblo Education Network (PEN) meetings</li><li>Technical support to Navajo Nation via regular meetings and attendance at monthly Navajo broadband meetings</li><li>OBAE presented at the NM Indian Affairs Department State Tribal Leaders Summit, All Pueblo Council of Governors, Ten Southern Pueblos Council, Eight Northern Indian Pueblos Council and the National Tribal Telecommunications Association Conference.</li><li>OBAE collaborated with NTIA to host a Tribal Roundtable May 24, 2023</li><li>Two Pueblo mapping sessions</li><li>OBAE attends weekly NM IAD Tribal Leader virtual meetings</li><li>Weekly communication with NTIA for tribal consultation</li><li>Four candidates interviewed for OBAE tribal coordinator; which is close to onboarding.</li></ul> | |

### 3.1.3.9 *Statewide middle-mile networks*

OBAE continues to advance the development of the Statewide Education Network (SEN). Key achievements spanned across the design, vendor negotiations, pilot program construction, and development of regional sites. OBAE also continues to identify and develop opportunities to foster open-access middle-mile networks that can catalyze last-mile networks across unserved and underserved communities.

| Initiative | Launch of Statewide Education Network |
|---|---|
| <ul><li>Completed negotiations and executed contracts with several vendors for the implementation of Phase1 of the NM Statewide Education Network.</li><li>Working on the design for the SEN network architecture.</li><li>Completed the construction of the pilot network regional aggregation node and "neutral MeetMe point", located in Gallup, NM</li><li>Nine other regional sites are in different stages of work.</li><li>SEN core network expected to become functional in 4th quarter of 2023 – 1st quarter of 2024</li></ul> | |
| **Initiative** | **Public-Private Investment Program for Priority Middle-Mile Routes** |
| <ul><li>Aim to launch the Connect New Mexico Fund later this year, allowing projects to fund the middle mile.</li></ul> | |

- Developed a legislative proposal seeking $XX for a dedicated middle-mile investment fund.

### 3.1.3.10 Coverage expansion of 5G mobile broadband

OBAE aims to launch a dedicated 5G mobility fund to foster the universal availability of mobile voice and broadband coverage across rural communities and highly trafficked roadways, and ensure first responders have access to a public safety network. This effort will gain further steam over the next six months as OBAE launches a comprehensive fact-gathering session.

The strategy calls for the following: a) identify coverage holes across rural communities and highly trafficked roadways; b) identify gaps in the public safety networks (e.g., FirstNet); c) understand the mobile network operators' specific plans to address these gaps; d) gain industry feedback on key barriers toward achieving quality coverage and capacity; e) determine approaches on how current and planned last-mile grant programs can be used to facilitate 5G coverage expansion (e.g., open-access requirement for backhaul networks; shared usage of towers for fixed and mobile broadband); f) design other programs to foster universal 5G coverage (e.g., investment, integration statewide middle-mile initiative, permit streamlining, etc.)

| Initiative | 5G Coverage Initiative |
|---|---|
| <ul><li>Conducted myriad of tribal consultations and ISP meetings to gauge the state of 5G networks.</li><li>Submitted a legislative proposal asking for dedicated funding for this network.</li><li>Will issue a Request for Information to gain public input to inform the strategy.</li></ul> | |

### 3.1.3.11 Network resiliency and security

OBAE continues to advance the critical mission of ensuring all broadband networks are resilient and secure. These efforts spanned across the SEN, DoIT operated networks, collaborative network planning with other state agencies, and newly funded broadband networks.

| Initiative | Text |
|---|---|
| ➢ **Statewide Education Network** <ul><li>Standing Up of the SEN Nodes</li><li>Ordering 100Gbps Wavelengths to SEN Nodes</li><li>Architected and Ordered Ciena Wavelength Equipment</li><li>Negotiated Colo with 10 Higher Ed Locations</li></ul> ➢ **Rio Grande Optical Network (RGON)** <ul><li>Renegotiated the Rio Grande Optical Network</li><li>Identified 5 new RGON Add Drop Locations</li><li>Architected Upgrade of 5 RGON existing sites to 400Gbps Wavelengths can support up to 32 wavelengths</li><li>SEN/RGON have separate physical routes from Santa Fe, Albuquerque, Socorro, Las Vegas, and Las Cruces providing a resilient connection to those nodes.</li></ul> | |

> **State Agency Collaboration**

- Working with DOT to Identify High Value Lettings OBAE could place conduit under Dig Once Agreement
- Identified Meta Fiber path and working with DOT to light the 24 strands.

> **Grant Programs**

- Encompassed the provision that every Grantee, receiving a broadband award, has cybersecurity risk management plan in place before starting commercial service. The Plan reflects the latest version of the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity (currently Version 1.1) and the standards and controls set forth in Executive Order 14028 and specifies the security and privacy controls being implemented.

### 3.1.3.12 OBAE transparency and accountability

OBAE recognizes the immense trust offered to it by the Governor, Legislature, and all residents and establishments across New Mexico to implement critical programs that advance socioeconomic development, and ensure funds are most effectively and efficiently applied. OBAE completed the rulemaking process last year and updated vital provisions. OBAE will produce a more detailed annual report by year-end. OBAE has also started developing partnerships with academia to engage in program evaluation.

| Initiative | Rulemaking for Broadband Grant Programs |
|---|---|

- Completed the rulemaking process for the Connect New Mexico Council
- Have updated the rulemaking to recent stakeholder feedback.

| Initiative | OBAE Annual Progress Report |
|---|---|

- Will prepare an Annual Report regarding key achievements by January 1st.

| Initiative | Program Evaluation and Socioeconomic Impact Assessment |
|---|---|

- Conducted five engagements with New Mexico higher education institutions from June 2023 – September 2023, gathering information on interest in conducting an Impact Assessment of Grant Programs.
- One institution is in the process of planning a longitudinal study regarding the digital equity efforts of New Mexico; the aim is to combine the Impact Assessment with this effort, if possible, by December 2023.

### 3.1.3.13 Grantee accountability for all programmatic and compliance requirements

OBAE continues to meet all program and compliance requirements.

| Initiative | Comprehensive System to Foster Grantee Accountability |
|---|---|

- Maintained 100% compliance for subgrantees and OBAE on all federal and state awards managed by OBAE.
- Standing up a grants management software called Submittable to handle all future applications to grant programs, document retention, compliance reporting, and program resource communications; this should be finalized by Q4 2023.
- Landing pages are under construction for all grants OBAE will manage; these webpages will house

program resources for assisting and empowering the sub-recipients. The aim is to have this completed by December 2023.

- Site visit program implementation is being developed by our project management team; this should be ready for implementation by December 2023 for construction commencement on projects in 2024.

# 4 Identified obstacles to an integrated system of permits, licenses and rules for broadband infrastructure across the State

The New Mexico "Broadband Access and Expansion Act" (SB93) instructed OBAE to "coordinate with federal, local government, State and Tribal government agencies to create an integrated system of permits, licenses and rules for broadband infrastructure across all governmental jurisdictions within each region of the state, including the creation of a centralized repository, and an expedited review process for rights of way use applications, with the goal of creating uniform coordinated permitting and licensing requirements statewide." [22] This section identifies the potential obstacles to the creation of an integrated system.

Issues in New Mexico (and in all states) with permits, rights-of-way, pole attachments and pole make-ready costs and processes can significantly delay broadband expansion to at least 142,000 rural New Mexico households that have been in need for years.[23] One broadband project, which is already funded in 2023, is required to contact more than 940 different permit agencies to build the infrastructure needed to bring internet service to their clients.

New Mexico is a checkerboard of different jurisdictions—federal, State, Tribal, county, municipal, land grant, colonias, conservancy district—that do not coordinate nor accept each other's permit requirements to satisfy their own. Nor do they allow these permitting processes to run in parallel to minimize the overall time it takes to be able to begin construction. This reality can add two years to a construction project, delaying much-needed infrastructure to many remote and rural locations that have no, or limited, connectivity.

The challenge of delivering internet service to all areas of New Mexico is compounded by the sharing of passive infrastructure, such as power poles, which can represent a large part of the cost of building these networks, especially if the broadband infrastructure expansion is planned to be mostly aerial. The range of costs related to installing poles can have an impact on the business model for ISPs, particularly smaller companies; these costs can include the surveys required for rights-of-way and permits; application fees for permits/rights-of-way; and staffing to fill out, submit, and manage permit applications.

Pole attachment rates are another obstacle and point of contention. The rates that investor-owned electric utility companies charge for pole attachments are regulated by the Federal

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[22] "Broadband Access and Expansion Act (Senate Bill 93)," https://www.nmlegis.gov/Sessions/21%20Regular/final/SB0093.pdf. See also: N.M. Stat. § 63-9J-1. NMSA 1978 (Broadband Access and Expansion Act), New Mexico Compilation Commission, https://nmonesource.com/nmos/nmsa/en/item/4412/index.do#!fragment/zoupio-_Toc143591441/.
[23] For data on unserved and underserved locations in the State, see the New Mexico Broadband Map (https://nmbbmapping.org/mapping/) and "Broadband Equity, Access, and Deployment (BEAD) Program: State of New Mexico Five-Year Action Plan," submitted by OBAE to the National Telecommunications and Information Administration (NTIA), August 2023.

Communications Commission (FCC), but rural electric cooperative (REC) attachment rates are not regulated in New Mexico. This causes issues between the electric coops and ISPs needing to hang fiber on power poles to provide internet service.

The competing viewpoints of RECs and ISPs also can become an obstacle to enabling legislation that requires consensus. This has stymied every state and even the FCC at the federal level.[24] One docket shows FCC's attempts: "In this Order and Further Notice of Proposed Rulemaking, we begin the process of revising the Commission's pole attachment rules to lower the costs of telecommunications, cable, and broadband deployment and to promote competition, as recommended in the National Broadband Plan."[25] These efforts have been helpful but do not seem to be enough to solve the problem.

## 4.1   Pole make-ready cost and pole attachment fees

When OBAE was first formed in July 2021, the obstacles to an integrated system of permits, licenses, and rules for broadband infrastructure across the State were well known but only notional in experience. Since then, OBAE has had some real-life experiences that have been painful, and the Office now knows the impacts are far-reaching.

One example is two schools that were being connected with high-speed internet that were a priority for the completion of connecting 840 New Mexico schools. The project was planned for aerial fiber since trenching in the area would be considered difficult. The project got underway and was celebrated as two of the last four New Mexico schools to be connected. However, as the broadband project progressed, the pole make-ready costs and the pole attachment fees grew beyond the project cost allocation, causing the project to be scrapped.

By way of background, it is important to understand the concepts of make-ready work and pole attachment fees. Before an ISP (or any company) can add a new attachment or line to a utility pole, the pole itself may need to be repaired, replaced, or heightened (which can be costly), and/or existing attachments may need to be moved around so that the pole can be made ready to handle a new attachment or line—which can be a complicated puzzle. This is known as make-ready work. After the costly make-ready work is paid for by the requestor, the owner of the pole will charge monthly rent.

For the project described above, these make-ready costs and pole attachment fees increased so much over time that the project was reevaluated, and canceled, putting the work two to three

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[24] See, for example: "Survey of Rates for Pole Attachments and Access to Rights of Way," FCC, April 24, 2018, https://www.fcc.gov/sites/default/files/ad-hoc-commitee-survey-04242018.pdf.

[25] "In the Matter of Implementation of Section 224 of the Act: A National Broadband Plan for Our Future," FCC, Order and Further Notice of Proposed Rulemaking (WC Docket No. 07-245, GN Docket No. 09-51), May 20, 2010, https://docs.fcc.gov/public/attachments/FCC-10-84A1.doc.

years behind. The project is now restarted with underground trenching as a more feasible solution, even though it was determined to be difficult trenching area. "Breaking ground" ceremonies were held in June 2023 as a restart to the project, which should now be completed in two years' time. This has had a five-year impact on hundreds of students and teachers at the two schools. This example became a news story in the Wall Street Journal.[26]

A second, recent example impacted cost and cycle time in the servicing of the rural communities of New Mexico. New Mexico was awarded $117 million for broadband infrastructure from the U.S. Treasury's Capital Projects Fund. OBAE held a competitive grant process (described in Section 5) to connect the unserved and underserved households in the most rural areas of New Mexico. A key broadband project in Lake Roberts and Gila River was awarded to Western New Mexico Telecommunications (WNMT) in March 2023. After much deliberation on make-ready costs and pole attachment fees and understanding the current environment, the company decided to refuse the award. This key decision impacted 11 communities in the western part of the State—including Cliff, Glenwood, Reserve, Luna, Alamo, Datil, Lordsburg, Magdalena, Mimbres, Pie Town, and Quemado—and 221 households. The company's decision also caused a disappointing situation for the State in the grant award process. This inability to complete the project could cause at least a four-year impact on those rural communities in New Mexico.

A partnership between pole owners and broadband deployers is needed. The history of business models and revenue streams for utility companies, rural electrical cooperatives (REC), and incumbent local electric companies (ILEC) make this a contentious endeavor and a rocky road to coming to consensus. Section 5 recommends policy and legislation changes to address these issues.

## 4.2   Rights-of-way, permits, and environmental surveys

Permits to access rights-of-way are needed to pave the way for approval of a broadband project. There are projects in New Mexico that require up to 1,000 right-of-way permits and surveys. Some of the processes require a linear approach instead of a parallel approach. For example, National Environmental Policy Act (NEPA) requires biological assessments and environmental impact studies as a perquisite to access the right-of-way and apply for permits from other organizations. Engineering surveys may also be a prerequisite.

Mitch Landrieu, who serves as Senior Advisor responsible for coordinating the implementation of the Infrastructure Investment and Jobs Act at the White House, challenged OBAE to look at each holder of the right-of-way and determine how to reduce cycle time and perform steps in parallel.

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[26] Ryan Tracy, "Fights Over Rural America's Phone Poles Slow Internet Rollout," *The Wall Street Journal*, March 12, 2023, https://www.wsj.com/articles/fights-over-rural-americas-phone-poles-slow-internet-rollout-e26621b8.

In June 2023, Eastern New Mexico Rural (ENMR) Telephone Cooperative (doing business as Plateau Telecommunications) was awarded a $50 million grant from NTIA's Enabling Middle Mile Broadband Infrastructure Program for a $100 million middle-mile project in New Mexico.[27] Their experience, while building one of the longest pieces of the middle-mile that will help complete the broadband framework across the state of New Mexico, highlights the obstacles that drive a typical two-year cycle time needed before even a piece of fiber is placed in the ground.

In comments shared with OBAE in 2023, Plateau Telecommunications noted, "ROW acquisition issues have a myriad of challenges because of the many agencies and departments that must be coordinated and integrated. Some areas can even create a checkerboard effect with many owners in a small area." Plateau's descriptions of its experiences with various State and federal agencies in regard to right-of-way issues are presented here to illustrate the challenges faced by broadband deployers:

*"Bureau of Land Management (BLM)*

- Offices seem to be short staffed and frequently slow to respond.

- Permits can take up to one (1) year to secure, depending on the requirements such as cultural, environmental and paleo surveys. Taos and Socorro field offices are a good example of this. Every added survey takes time to coordinate and once the reports are sent back to the BLM for review, that adds even more time and cost before the process can be moved to the next step.

- BLM's transition to their new permit system has greatly slowed up submittals lately. Once the new system is fully operational, it should be better. BLM Roswell had an issue where a grant application was not entered into the system and thus was overlooked.

- One example is in working with Taos field office on ELV-11 Gonzales Ranch and Rural Utility Service (RUS) R1 Trementina Route 7, both designs follow San Miguel County Roads. There is no record of either road ever having been permitted with the BLM. The BLM is pushing back on us to work with San Miguel County to get their road permitted prior to them working with Plateau for the ROW grant for our fiber easement.

- Another example is in working with the Socorro field office and the project to the AT&T site at Stallion, where there is the exclusion zone for the Aplomado Falcon. Our project was designed to follow the pre-disturbed area along NM State Road 525 on the western

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[27] "Funding Recipients: Enabling Middle Mile Broadband Infrastructure Program," National Telecommunications and Information Administration, https://broadbandusa.ntia.gov/funding-programs/enabling-middle-mile-broadband-infrastructure-program/funding-recipients#E. See also: "Funding Awards," Connect New Mexico, https://connect.nm.gov/funding-awards.html.

edge of the zone. The denial of the grant has caused Plateau to redesign and take the fiber cross country through rough terrain to get to the Stallion Army Airfield.

- A third example was when we encountered an issue with the BLM Roswell field office and inaccurate records recently relating to RUS R1 Corona Route 8. BLM records show one portion of land as theirs, Lincoln County shows different. We pulled deeds and title proving the land is indeed privately owned and not BLM. BLM has been notified and is investigating their records.

*Bureau of Reclamation (BOR)*

- No issues can be recalled.

*Fish and Wildlife (FWS)*

- The last project was the High Lonesome project near Roswell. We did have some issues with communication and coordination during that project. This agency is along a good portion of the NTIA route paralleling I25 from Belen to Lemitar.

*U.S. Army Corps of Engineers (USACE)*

- Lack of communication and response.

- While working with White Sands Missile Range (WSMR), the contract easement was transferred to the USACE office in Albuquerque to finalize. The Easement was not completed correctly and written as a Right-of-Entry (ROE) instead of the easement, as instructed. The Real Estate Division Agent that we have been working with has had no communication back since May 16th after the request for the easement was submitted. Several follow up emails and phone calls have been made. Our contact with WSMR is reaching out to the USACE for assistance.

- The same agent communicated infrequently while working on a possible easement amendment for the Santa Rosa Lake cabinet E7 upgrade. The Santa Rosa Lake issue was finally cleared up on May 31st.

*U.S. Forest Service*

- Lack of office staff makes the process slow. Amendments for existing cable are taking several months to complete currently. Past processes used to take just a couple of weeks to complete.

*New Mexico State Land Office (NMSLO)*

- NMSLO, as of December 2022, is now requiring that cultural surveys be performed prior to easement application be submitted. This adds additional cost and time to the project. A typical Consumer Report (CR) survey can take about 4-6 weeks to schedule the walk and to complete the report minus the land survey plat. To add to this, the report can't be completed until the land survey by a professional land surveyor is completed. The plat provided by the land surveyor is added to the report. Land surveyors can't be scheduled until the cultural survey has cleared the route. Scheduling the land survey adds another four (4) weeks average to coordinate the fieldwork and the plat work. It can take an average of 60 days to prepare the NMSLO easement application for submittal. NMSLO then averages about 90-120 days for their review and approval.

- Once the NMSLO has the application, no other major issues have come up.

*New Mexico Department of Transportation (NMDOT)*

- Permit fees. We are getting different feedback from different districts on the amounts. Districts 2, 3 and 4 are charging one $500.00 fee should a parallel and crossing be submitted together or if there are multiple parallels associated with the same project, if they are not more than 1,000 feet apart.

- District 5 notified Plateau that they were instructed to charge $500.00 per permit application submitted, whether it is a crossing or parallel. District 5 is the only district requiring post construction as-built professional surveys be done.

- Most districts have the permits back before the standard 45 business days. District 4 usually takes most of that time, but rarely is over this.

- Permit Notice to Proceeds (NTP) are only good for six months. After six months, the NTP can be renewed for one additional six-month term. If the NTP goes past the 12 months, a new permit will be required at the standard permit fee. We are trying our best to coordinate the permits with the construction schedule and only submit as we know construction is getting close.

*State Historic Preservation Office (SHPO)*

- SHPO requires a cultural survey on a certain percentage of private land acquired for ROW. RUS will not sign off on Section 106 or National Environmental Policy Act (NEPA) until the SHPO approves. This private land survey requirement has cost thousands of dollars in delays. Many private landowners are motivated to provide ROW for the betterment of the Cooperative and to push fiber to their neighbors. However, once notified of the private land survey, they start to push back or even deny ROW.

In summary, much of the cost and delays could be avoided if some reliefs were given to pre-disturbed right-of-way. Approximately 98% of our projects parallel existing facilities, along existing roads, with other utilities present. Requiring costly and time-consuming surveys provides little benefit to anyone."[28]

Plateau Telecommunications' experience can be applied to many companies and can serve as the norm for major broadband projects.

OBAE is also in the process of performing broadband Tribal consultations with each of the 24 Tribes and Pueblos and the Navajo Nation. Many of the Tribes and Pueblos want to be their own ISP providing service on their lands, so right-of-way on their lands has not necessarily been an issue. Right-of-way access and permits come into play when the Tribe needs to cross a NMDOT highway or coordinate with a conservancy when they service off-Tribal lands or need backhaul back to a major city. Checkerboard areas can also be an issue for right-of-way where Tribal lands are non-contiguous.

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[28] Plateau Telecommunications communication with OBAE, 2023.

# 5 Recommended statutory, regulatory or policy changes and budget recommendations for the development and expansion of broadband infrastructure and digital equity and digital inclusion

Based on the ongoing work completed by the Connect New Mexico Council and OBAE to collect and evaluate data, and to identify solutions for digital equity and broadband access gaps in the State, this section makes a series of recommendations to guide decisions around legislative and budgetary issues.

There are steps OBAE can take to streamline the permitting and rights of way processes for those jurisdictions the State controls. Each stakeholder (e.g., ISPs, ILECs, RECs, carrier groups, utility companies, counties, municipalities, telephone companies, state agencies) can come together to help New Mexico guide and facilitate right-of-way, permits the pole attachment/make-ready process. Below is a set of legislative recommendations that require stakeholder input to ensure benefit for all.

Some nuances to consider when making policy decisions:

- Where electrical infrastructure (and utility poles) is present, it provides an effective path to reach the location with reliable, longer-term, and more cost-effective wired broadband infrastructure. Buried lines are seemingly more disaster-proof but can cost up to four times more to install (depending on the terrain) and can take much longer to install (depending on the types of additional studies and permits that are required). Policy decisions will have to be made depending on the area, risk level, funding available, and other factors.

- Sometimes the need for a pole replacement has nothing to do with the condition of the pole. It may be related to the need to meet new clearance requirements (e.g., additional or taller poles might be needed for crossings of roads, or to make room for new attachments of broadband infrastructure) or poles may need to be added mid-span. If the pole replacement is required to accommodate a new attachment, the cost is generally borne by the new deployer, not the pole owner.

- The physical pole survey and make-ready cost estimate usually are conducted after a broadband project is funded—which makes any substantial increase in expected costs or the permit/license processing timeframe a potential "death sentence" to the project. New Mexico has experienced several instances of this situation.

- Electric coops, municipalities, and other small utility pole owners may not have the required resources / experienced personnel necessary to accommodate the permitting

and make-ready volume and timeframes required by the current BEAD and other broadband funding/programs.

## 5.1   Current recommendations for 2024 State legislation and policy changes

**Implement a "Dig Once" policy.** Encourage the New Mexico Department of Transportation (NMDOT) to lay empty conduit in every open trench. This would drop the requirement for all NMDOT permits for broadband buried in the ground. The term "dig once requirement" reduces the cost and accelerates the deployment of broadband by minimizing the number and scale of repeated "digs" or excavations for the installation and maintenance of broadband fiber plus conduit and leverages broadband infrastructure rights-of-way. This is consistent with the Federal Dig Once Act of 2021.

As of August 2023, OBAE has already started to coordinate with NMDOT by identifying all the current projects that can accept a change order for trench and fiber for the next one to three years. OBAE and NMDOT have also started to look at NMDOT road projects that are 4 years out where trenches, fiber and conduit can be planned into the design process. OBAE will continue to monitor the NMDOT monthly report and have periodic meetings with NMDOT to ensure we stay in lock step. This effort will require funding for fiber and conduit that must be requested in the 2024 legislative session. This is a policy change only; no legislation is needed.

**Emulate the Utah Department of Transportation (UDOT) asset exchange program as a model**. Work within Administrative Code (NMAC) creating a program for sharing passive infrastructure in New Mexico to include establishing clear legal frameworks, mandating infrastructure sharing, developing a central database, implementing streamlined procedures, encouraging infrastructure collaboration, setting pricing guidelines, and monitoring and enforcing the requirements.

OBAE and NMDOT have planned a field trip to Utah to see a demo of their portal where assets and existing ROW are shared through a point system exchange. This is a policy change only; no legislation is needed.

**Modify the Wireless Consumer Advanced Infrastructure Investment Act.** The definition is modified to include the State, beside counties and municipalities. This would allow the state to leverage the existing small tower assets for partnerships with industry and reuse existing right-of-way. This will require a legislation change.

**Clarify ownership of State broadband assets such as towers, conduit, and networks.** Legislation is required to modify SB 452 and HB262 (2023) to address the patchwork of ownership.

**Standardize utility poles attachment costs.** Take guidance from the FCC and the New Mexico Rural Electric Cooperatives (NMREC).

**Extend utility easements to communication infrastructure**. For a burdened parcel with a utility easement, this modification would provide for or permit the installation, maintenance, removal or use of communications infrastructure, upon complying with the notice provisions in Section 7 of the Utility Easements for Broadband Act.

**Modify procurement code exemptions**. Update the wording to include an exemption for the terms of the broadband contracts, agreements/partnerships extended beyond four years since projects and maintenance can be longer than four years and Indefeasible Right of Use (IRUs) last typically at least 25 years. This will require a legislation change.

## 5.2   Possible recommendations for 2024 State legislation and policy changes

Referencing the Schools, Health & Libraries Broadband (SHLB) Coalition's best practices on this subject,[29] the following recommendations might be considered for 2024:

- Develop a state-led summary of jurisdictions and a process for a given project footprint. This will provide insight and clarity to right-of-way applicants

- Eliminate physical submission of checks and physical package submittal that add to cycle time of right-of-way/permits approval

- Eliminate the requirement for a cadastral survey before the permit process can begin; this will allow processes to be performed in parallel

- Allow permitting authorities to accept third-party approvals on engineering and environmental reviews from qualified resources (e.g., licensed engineering/environmental firms)

- Provide technical assistance to pole owners with encouragement and implementation of technology solutions (e.g., electronic inventory, use of drone technology for automated inspection of poles, electronic tracking and permit processing)

- Consider placement of broadband infrastructure in the "power space"

- Create a taskforce/workgroup with real knowledge and expertise available for dispute resolution—paired with a robust requirement for timely resolution

- Create a pole replacement fund

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[29] "Pole Attachment Principles to Expedite Broadband Deployment to Anchor Institutions and Their Communities," Schools, Health & Libraries Broadband (SHLB) Coalition, June 28, 2021, https://www.shlb.org/uploads/Policy/SHLB-Pole-Attachment-Principles.pdf.

## 5.3   Future Recommendations for 2025 State legislation changes

**Streamline the permit application processes in all agencies**. OBAE may consider the development of a training program for applicants (internet service providers, both for profit and non-profit) on the requirements for all permitting applications (federal, State, Tribal, county, municipal, land grant, conservancy districts). Budget required for staff, program development, training development, training materials, travel. (OBAE develops program; legislature approves budget annually as part of NMDOT budget)

**Require parallel processing of permit applications**. State applications started at the same time as federal applications shortened the application timeline. This may require policy and legislation changes.

**Reduce or eliminate cultural and environmental requirements in existing utility corridors (pre-disturbed)**. This recommendation has great time savings in that it leverages environmental, architectural surveys and rights-of-way that already exist for a previous project that disturbed the earth. This may require policy and legislation changes.

## 5.4   Recommendations for changes at the federal level

**Extend FAST-41 process to all broadband projects instead of just large ($200 million) projects.** Tribal entities are already eligible for the FAST41 process. FAST-41 coverage entitles project sponsors to a comprehensive, integrated Federal permitting timetable that is publicly posted on the Permitting Dashboard, and which contains all Federal environmental reviews and authorizations needed to begin construction of the project. This change would afford the timetable and dashboard benefits to all broadband projects.

**Fund an increase in permit specialist personnel for all federal agencies involved in permits and rights-of-way.**

**Respect Tribal sovereignty by ensuring all broadband projects receive Tribal consent if the project crosses Tribal lands.** If no Tribal consent was received, revert the awarded funds (RDOF, USDA, Reconnect, etc.) to the state to get formal concurrence or award to another entity who receives Tribal consent. This would allow the ability to re-award to entities that received Tribal concurrence and keep the awarded dollars as benefit to the state.

**Eliminate letters of credit requirement for grant awardees.** The State and many local small companies cannot receive letters of credit.

**Continue the Affordable Connectivity Program.** About 162,000 New Mexico households currently depend on the ACP to afford service and at least 200,000 more homes are eligible.

**Eliminate State and federal taxes on broadband grant awards.** State and federal taxes can reduce the funding amount by 30 percent and can impact the ability to complete a project within cost and schedule. This will require legislation.

OBAE will continue to work with the federal agencies, and the New Mexico delegation, to streamline those processes more and more. Tribal jurisdiction is intertwined with the Bureau of Indian Affairs (BIA) and OBAE is working steadily with these partners.

## 5.5   Recommendations for budget

OBAE developed initial broadband cost modelling (based on OBAE inputs, the May 2023 V2 FCC Broadband USA map, the latest material costs, and the latest deployment costs) to meet the Broadband Equity, Access, and Deployment (BEAD) program requirements. The analysis in the State's BEAD Five-Year Action Plan shows that it will take approximately $2.9 billion of last mile construction to serve the unserved and underserved locations in the State.

A more comprehensive number must be calculated to provide all needed functionality for connectivity in New Mexico which includes the last mile ($2.9 billion) but adds:

- Improvements to mobile services along highways and near residences (estimated at $500 million)

- $155 million to finish the middle-mile infrastructure per the 2022 Finley Engineering report for OBAE

- $600 million for operating and maintaining the network

- Miscellaneous funds needed such as the fiber and conduit needed for the Dig Once policy and for make-ready and pole attachments

This totals to an estimate of $4.1 billion to complete all infrastructure across New Mexico for total connectivity in today's dollars. Table 8 subtracts all the funds that have flowed into New Mexico over the past two years ($2 billion) from the required $4.1 billion to determine the leftover gap of approximately $2.1 billion in total funding that must be supplemented.

If the total is divided over six years, $353 million would be the resulting request to the Legislative Finance Committee each year for six years. The Connect New Mexico Fund was already formed and allocated $100 million for broadband infrastructure in HB 377 (2021), so the request would be to increase and continue replenishing this already established fund.

**Table 8: Estimated gap funding needed for total broadband infrastructure and connectivity**

| | | |
|---|---|---|
| Total Cost to build Broadband infrastructure* | $ | 4,100,000,000 |
| $ Won so far in NM for Infrastructure (not counting Digital Equity or loans) | $ | (721,000,000) |
| ARPA Funds for Broadband | $ | (117,000,000) |
| Additional Tribal TBCP Phase 2 expected | $ | (80,000,000) |
| NTIA BEAD funding | $ | (675,372,312) |
| 25% match for ARPA and BEAD | $ | (198,093,078) |
| CNMC fund | $ | (100,000,000) |
| State middle mile fund | $ | (18,000,000) |
| Miscellaneous funds (GEER2, EANS, SEN, libraries etc) over 6 years | $ | (68,000,000) |
| State or other sources of investment needed | $ | 2,122,534,610 |
| CNMC fund per 6 years | $ | 353,755,768 |

Table 9 shows a notional allocation of the yearly $353 million Connect New Mexico Fund allocation to and the basis of estimates to cover all the spectrum of broadband needs.

**Table 9: Notional allocation of the yearly $353 million Connect New Mexico Fund allocation**

| Item | Infrastructure | Estimate in Millions | Basis of Estimate |
|---|---|---|---|
| 1 | Funding for conduit and/or backbone/backhaul unshielded fiber (288 strands) for DIG Once projects | $ 14 | 363 miles per year |
| 2 | Extension of Statewide Education Network DataCenter framework | $ 2 | Per recent SEN contracts |
| 3 | Middle Mile | $ 22 | Per Finley report $155M |
| 4 | Last mile | $ 148 | Per CTC report |
| 5 | Telehealth , Courts, Correction Facilities connectivity upgrades | $ 3 | $250K per faciity (12 facilities) |
| 6 | Matching funds for grants | $ 10 | For those who can't afford |
| 7 | Funding assistance for grant writing | $ 2 | Allows 25 grants at $50k each |
| 8 | Network operations/security operations | $ 6 | Per SEN contract |
| 9 | 5G and Towers | $ 88 | $528M over six years |
| 10 | Affordability Connectivity Program/Connecting students in their homes (Yazzie Martinez) | $ 28 | Subsidy for internet service ($75.00 * 380K eligible homes) |
| 11 | Startup and/or Sustaining Operations | $ 6 | (550 homes *$1000.00 ) X10 projects |
| 12 | Utitlty pole replacement and emergency, inflation | $ 14 | 4000 poles in 60 miles * 2 projects = $3500.00/pole * 2000 poles * 2 projects = $14M |
| 13 | Workforce Development | $ 10 | $3,500.00 tuition per student per SFCC (571 students) + other programs and pgm developemnt |
| | **Total** | **$ 353** | |

OBAE is also researching leading-edge technology that could provide the capability to "leapfrog" over hard-to-obtain right-of-way areas, like railroad ownership corridors or multi-owner lands. This will be accomplished by laser technology or microwave technology that provides a break to the fiber in the ground with new technology that jumps over areas and then allows restart of

fiber when the right-of-way area is passed. This may take some time to prove that no capacity, speed, or data segregation is lost and that latency is not increased. This could be especially useful in checkerboard areas.

OBAE will also seek to continue to learn from other states, New Mexico stakeholders, and Tribes to implement needed changes to result in efficiencies for right-of-way, permitting, and pole attachments.

Legislation may take a few years because New Mexico's legislative sessions are only once per year. If all stakeholders work together for the good of New Mexico as a common goal to change legislation/policies and the suggested funding is received, the comprehensive broadband highway could become a reality in New Mexico for every resident.

# 6  Information on the broadband grant program

This section presents details on the Connect New Mexico Broadband Grant Program, including:

1.  A list of grant recipients

2.  The amount and date of each grant

## 6.1  Background on the Connect New Mexico Pilot Program

Utilizing a Capital Projects Funds grant from the Department of Treasury's American Rescue Plan Act (ARPA) program, OBAE deployed the Connect New Mexico Pilot Program as part of its strategy to address challenges to broadband deployment and digital equity. It designed the Pilot Program to leverage $117 million for what was described at the time as the largest broadband expansion effort in the State's history.

The program's purpose is "foster the deployment of broadband access across unserved and underserved areas in New Mexico through sustainable, scalable networks and financially viable business plans and serve the comprehensive community with high-quality, reasonably priced solutions."OBAE established performance standards, including a requirement that networks deliver 100 Mbps symmetrical speeds and support low latency to enable real-time, interactive applications.

In cases involving geographic, topographic, or excessive cost barriers, the guidelines allowed an applicant to propose at least 100/20 Mbps with scalability to 100 Mbps symmetrical. The Pilot Program's grant focus is last-mile networks and complementary facilities such as middle-mile and community Wi-Fi networks.

Awards were granted to ISP projects to extend broadband service to areas categorized as unserved or underserved, including in some instances, "small, isolated communities and villages." Each award was matched with some amount of non-State funding, leveraging the State awards.

The Connect New Mexico Pilot Program has unded 19 projects and provided approximately $117 million in grants, and have been complemented by $72.76 million in matching contributions, yielding a total investment of approximately $189 million. In total, these projects will deploy over 1,340 fiber miles and connect approximately 22,400 premises.

The table below lists all the awards. The final metrics will change due to an open proceeding to resolve overlap determined post-announcement regarding the Comcast projects for Dona Ana County.

## 6.2   Details on grant recipients

| Applicant | Project Name | Entity Type | Location | County | Technology | Network Purpose | Fiber Miles | New | Leased | Total Units | HH | Bus | CAI | Farms | Unserved | Underserved | Cost per Unit | Budget | Grant Request | Grant % | Match | Match % | Cash Match | In-Kind |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central New Mexico Electric Coop, Inc. | Central New Mexico Electric Coop Substation Backbone & FTTH | Cooperative | Estancia, Mountainair | Santa Fe, Torrance | Wireline | Last-Mile | 85.5 | 85.5 | 0 | 2031 | 1615 | 388 | 28 | 0 | 1976 | 55 | $ 4,314 | $ 8,760,750.00 | $ 6,569,755.00 | 74.99% | $ 2,190,995.00 | 25.01% | $ 2,190,995.00 | $0.00 |
| SWC Telesolutions, Inc. (Sacred Wind) | SWCT dba Ethos_TorC and Williamsburg Fiber Broadband Project | Private | Truth or Consequences, Williamsburg | Sierra | Wireline | Last-Mile | 49 | 49 | 0 | 2932 | 2,758 | 137 | 34 | 3 | 1,398 | 1,534 | $ 4,949 | $ 14,510,662.00 | $ 8,482,110.00 | 58.45% | $ 6,028,552.00 | 41.55% | $ 3,635,190.00 | $2,393,362.00 |
| Socorro Electric Cooperative, Inc. | SEC Middle Mile and Fiber to the Premise Development | Cooperative | Magdalena | Socorro | Wireline | Last and Middle Mile | 50 | 50 | 0 | 299 | 264 | 32 | 3 | 0 | 299 | 0 | $ 25,002 | $ 7,475,700.00 | $ 5,095,992.00 | 68.17% | $ 2,379,708.00 | 31.83% | $1,379,708.00 | $1,000,000.00 |
| Comcast Corporation | Vado, La Mesa, Berino, Anthony, Chamberino Public Private Partnership | Private | Vado, La Mesa, Berino, Chamberino and the City of Anthony | Dona Ana | Wireline | Last-Mile | 152.68 | 152.68 | 0 | 3398 | 3145 | 129 | 14 | 110 | 1098 | 2300 | $ 4,861 | $ 16,518,596.00 | $ 8,259,298.00 | 50.00% | $ 8,259,298.00 | 50.00% | $ 8,259,298.00 | $0.00 |
| Comcast Corporation | Chaparral, La Union, Santa Teresa Public Private Partnership | Private | Chaparral, La Union, Santa Teresa | Dona Ana | Wireline | Last-Mile | 180 | 180 | 0 | 4816 | 4649 | 88 | 20 | 59 | 440 | 4376 | $ 3,670 | $ 17,672,337.00 | $ 8,836,168.50 | 50.00% | $ 8,836,168.50 | 50.00% | $ 8,836,168.50 | $0.00 |
| SWC Telesolutions, Inc. (Sacred Wind) | West Gallup and Thoreau Broadband Project | Private | West Gallup and Thoreau | McKinley | Fixed Wireless | Last-Mile | 0 | 0 | 0 | 435 | 412 | 17 | 6 | 0 | 141 | 294 | $ 4,829 | $ 2,100,733.62 | $ 1,041,927.00 | 49.60% | $ 1,058,806.62 | 50.40% | $ 318,975.62 | $739,831.00 |
| Tularosa Communications | Lincoln Otero FTTP | Private | Bent and Alamogordo; Sun Valley | Otero, Lincoln | Wireline | Last-Mile | 79 | 79 | 0 | 1048 | 974 | 64 | 8 | 2 | 1032 | 16 | $ 9,479 | $ 9,934,200.00 | $ 7,447,454.00 | 74.97% | $ 2,486,746.00 | 25.03% | $ 2,486,746.00 | $0.00 |
| Valley Telecom Group | Columbus Regional Fiber Project | Private | Village of Columbus | Luna | Wireline | Last-Mile | 49 | 49 | 0 | 822 | 701 | 114 | 5 | 2 | 724 | 98 | $ 6,934 | $ 5,699,716.00 | $ 3,704,815.00 | 65.00% | $ 1,994,900.60 | 35.00% | $ 1,994,900.60 | $0.00 |
| Comcast Corporation | Aztec, San Juan Public Private Partnership | Private | Aztec | San Juan | Wireline | Last-Mile | 125.1 | 125.1 | 0 | 1688 | 1611 | 37 | 6 | 34 | 595 | 1093 | $ 7,011 | $ 11,833,959.00 | $ 8,875,469.25 | 75.00% | $ 2,958,489.75 | 25% | $ 2,958,489.75 | $0.00 |
| Comcast Corporation | Bloomfield, San Juan County Public Private Partnership | Private | Bloomfield | San Juan | Wireline | Last-Mile | 109.4 | 109.4 | 0 | 1155 | 1046 | 95 | 0 | 14 | 614 | 541 | $ 7,716 | $ 8,911,425.00 | $ 6,683,568.75 | 75.00% | $ 2,227,856.25 | 25% | $ 2,227,856.25 | $0.00 |
| Jemez Mountains Electric Cooperative | JMEC Broadband | Cooperative | Hernandez, Ohkay Owingeh, Chamita, Alcalde, El Duende, La Villita, Los Luceros, Lyden, Canova, Velarde | Rio Arriba | Wireline | Last-Mile | 105 | 105 | 0 | 3171 | 3108 | 34 | 17 | 12 | 1774 | 1397 | $ 3,780 | $ 11,986,510.00 | $ 5,993,281.00 | 50.00% | $ 5,993,229.00 | 50.00% | $ 5,993,229.00 | $0.00 |
| Penasco Valley Telephone Cooperative | Cherry Decker Subdivision | Cooperative | Hagerman | Chaves | Wireline | Last-Mile | 12.50 | 12.50 | 0 | 41 | 38 | 0 | 0 | 3 | 41 | 0 | $ 15,824 | $ 648,793.00 | $ 486,595.00 | 75.00% | $ 162,198.00 | 25.00% | $ 162,198.00 | $0.00 |
| Pueblo of Jemez | Pueblo of Jemez Last Mile Fiber to the Home Infrastructure Project | Tribal-Owned | Pueblo of Jemez | Sandoval | Wireline | Last-Mile | 45.58 | 45.58 | 0 | 623 | 623 | 0 | 0 | 0 | 623 | 0 | $ 24,423 | $ 15,215,556.29 | $ 8,565,941.98 | 56.30% | $6,649,614.31 | 43.70% | $0.00 | $6,649,614.31 |
| Pueblo of Laguna | Pueblo of Laguna FTTP and Backbone Network | Tribal-Owned | Pueblo of Laguna | Cibola | Wireline | Last-Mile | 193.00 | 193.00 | 0.00 | 1460 | 1390 | 14 | 56 | 0 | 1460 | 0 | $ 12,275 | $ 17,921,298.83 | $ 9,050,049.88 | 50.50% | $ 8,871,248.95 | 49.50% | $ 8,871,248.95 | $0.00 |
| Pueblo of Nambe | Pueblo of Nambe Broadband Deployment Project | Tribal-Owned | Pueblo of Nambe | Santa Fe | Wireline, Fixed Wireless | Last-Mile | 29.75 | 29.75 | 0.00 | 254 | 250 | 0 | 4 | 0 | 254 | 0 | $ 27,832 | $7,069,422.00 | $5,233,436.91 | 74.03% | $1,835,985.09 | 25.97% | $1,835,985.09 | $0.00 |
| Pueblo of Santa Ana | Santa Ana Pueblo Residential Broadband | Tribal-Owned | Pueblo of Santa Ana | Cibola | Wireline | Last-Mile | 20.90 | 18.13 | 2.77 | 276 | 275 | 1 | 0 | 0 | 276 | 0 | $ 14,320 | $ 3,952,213.69 | $ 2,665,775.02 | 67.45% | $ 1,286,438.67 | 32.55% | $ 1,235,038.67 | $ 51,400.00 |
| Pueblo Santo Domingo | Santo Domingo Pueblo FTTH Project | Tribal-Owned | Santo Domingo Pueblo | Sandoval | Wireline | Last-Mile | 50.00 | 50.00 | 0.00 | 870 | 855 | 10 | 5 | 0 | 870 | 0 | $ 17,271 | $ 15,026,075.40 | $ 9,220,154.07 | 61.36% | $ 5,805,921.33 | 38.64% | $0.00 | $ 5,805,921.33 |
| Tularosa Communications | Otero County FTTH | Private | Dog Canyon, Dog Ranch | Otero | Wireline | Last-Mile | 63.00 | 63.00 | 0.00 | 574 | 574 | 0 | 0 | 0 | 574 | 0 | $ 9,867 | $ 5,663,500.00 | $ 4,247,625.00 | 75.00% | $1,415,875.00 | 25% | $1,415,875.00 | $0.00 |
| Oso Internet Solutions, LLC | Oso Internet Solutions - Pine Meadows | Private/Tribal Affiliated | Ramah Navajo Chapter | Cibola | Wireline | Last-Mile, Middle-Mile | 49.35 | 49.35 | 0.00 | 109 | 92 | 17 | 0 | 0 | 109 | 0 | $ 74,419 | $ 8,111,638.25 | $ 5,789,283.37 | 71.37% | $2,322,354.88 | 28.63% | $590,372.47 | $1,731,982.41 |
| **Total for All Projects** | | | | | | | **1,449** | **1,446** | **3** | **26,002** | **24,380** | **1,177** | **206** | **239** | **14,298** | **11,704** | **$ 7,269** | **189,013,086** | **116,248,700** | **61.5%** | **72,764,386** | **38.5%** | **54,392,275** | **18,372,111** |

# Pilot Program Grant Allocation by County

| County | Amount ($) | Percentage |
|---|---|---|
| Sandoval | 17,786,096.05 | 15.3% |
| Cibola | 17,505,108.27 | 15.1% |
| Dona Ana | 17,095,466.50 | 14.7% |
| San Juan | 15,559,038.00 | 13.4% |
| Otero | 9,311,893.72 | 8.0% |
| Sierra | 8,482,110.00 | 7.3% |
| Santa Fe | 7,532,851.16 | 6.5% |
| Rio Arriba | 5,993,281.00 | 5.2% |
| Socorro | 5,095,992.00 | 4.4% |
| Torrance | 4,270,340.75 | 3.7% |
| Luna | 3,704,815.00 | 3.2% |
| Lincoln | 2,383,185.28 | 2.1% |
| McKinley | 1,041,927.00 | 0.9% |
| Chaves | 486,595.00 | 0.4% |
| Total | 116,248,699.73 | |

# Appendix A: County-level broadband access and digital equity data

As described in Section 2, the sources for the figures presented here are the following:

| Data | Source |
|---|---|
| *Broadband service availability* | Federal Communications Commission (FCC) Broadband Data Collection (BDC), July 25, 2023, data, https://www.fcc.gov/BroadbandData. |
| *Broadband adoption* | U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html. |
| *Device ownership* | U.S. Census, American Community Survey 5-Year Data (2009-2021), June 15, 2023, data, https://www.census.gov/data/developers/data-sets/acs-5year.html. |
| *Broadband affordability* | "ACP Enrollment and Claims Tracker," Universal Service Administrative Co., August 2023 data, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/. Household eligibility estimates based on U.S. Census county-level data on poverty levels. |

## Bernalillo County

**Figure 9: Broadband service availability – Bernalillo County**



- Percentage of locations with access to at least 100 / 100: 2%
- Percentage of locations with access to at least 100 / 20: 97%
- Percentage of locations with access to at least 25 / 3: 98%
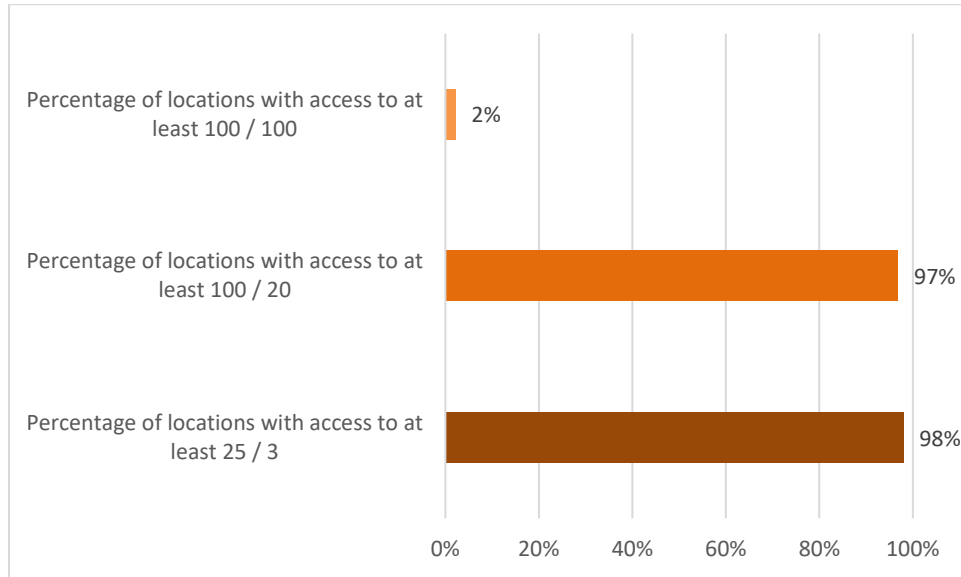
**Figure 10: Broadband adoption – Bernalillo County**



- Percentage of households subscribed to mobile data plan only: 11%
- Percentage of households subscribed to wireline service: 71%
- Percentage of households subscribed to internet service: 86%
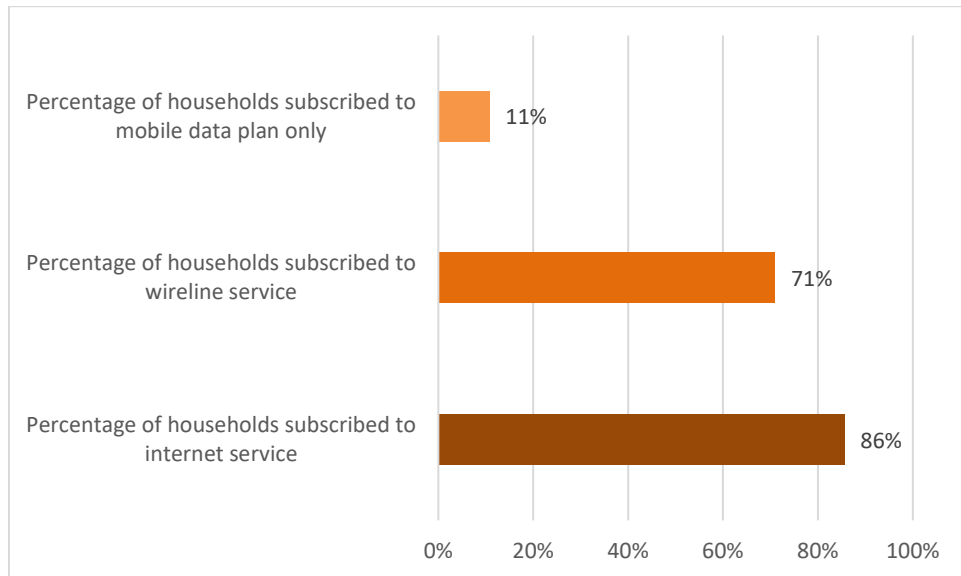
**Figure 11: Device ownership – Bernalillo County**

Households with laptop/desktop

78%
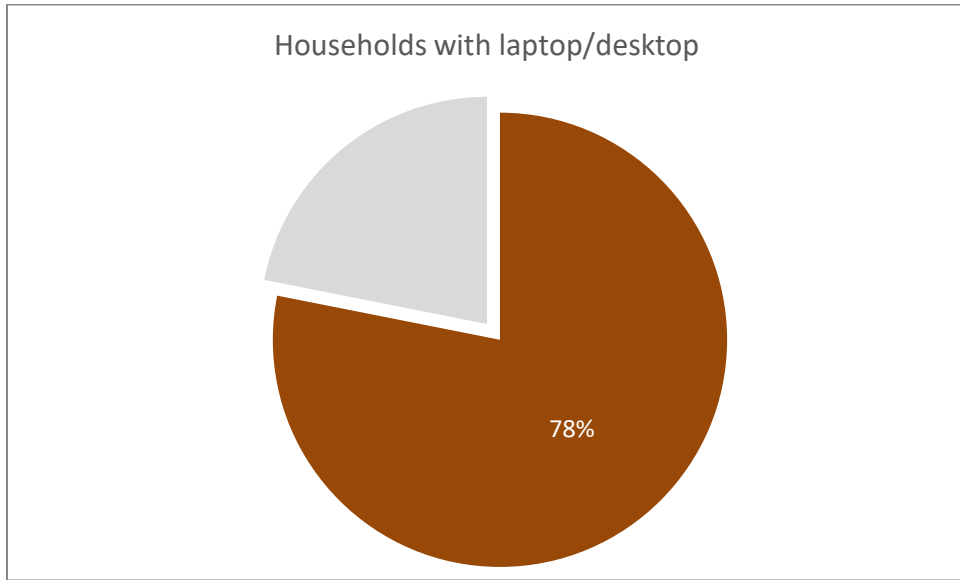
**Figure 12: Broadband affordability – Bernalillo County**

Portion of eligible households enrolled in ACP

35%
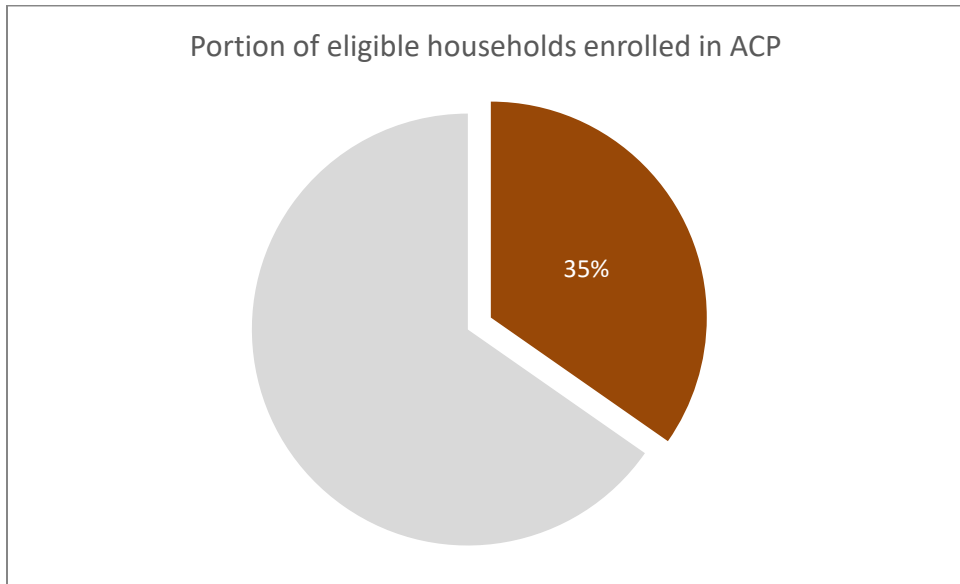
## Catron County

**Figure 13: Broadband service availability – Catron County**

Percentage of locations with access to at least 100 / 100 — 21%

Percentage of locations with access to at least 100 / 20 — 73%

Percentage of locations with access to at least 25 / 3 — 85%
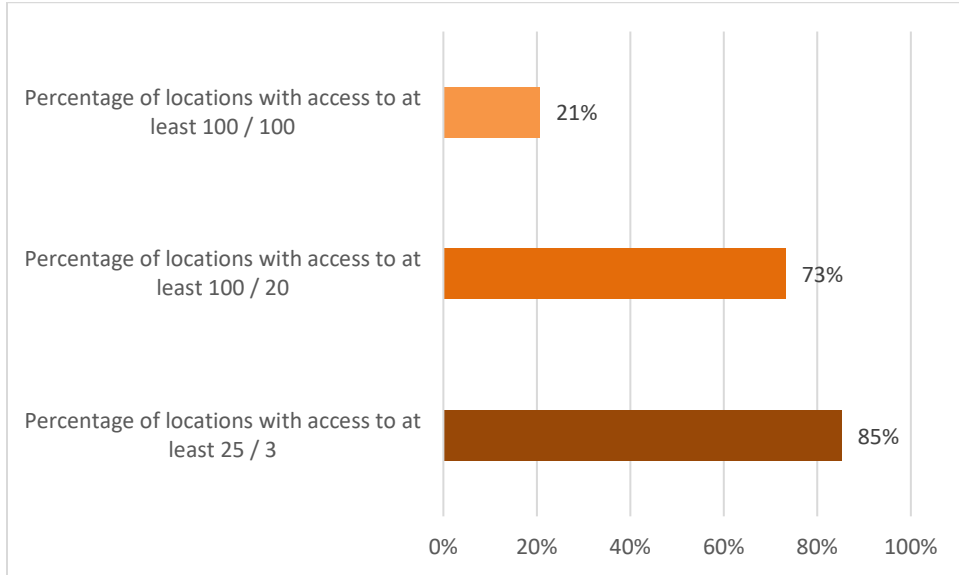
**Figure 14: Broadband adoption – Catron County**

Percentage of households subscribed to mobile data plan only — 12%

Percentage of households subscribed to wireline service — 65%

Percentage of households subscribed to internet service — 84%
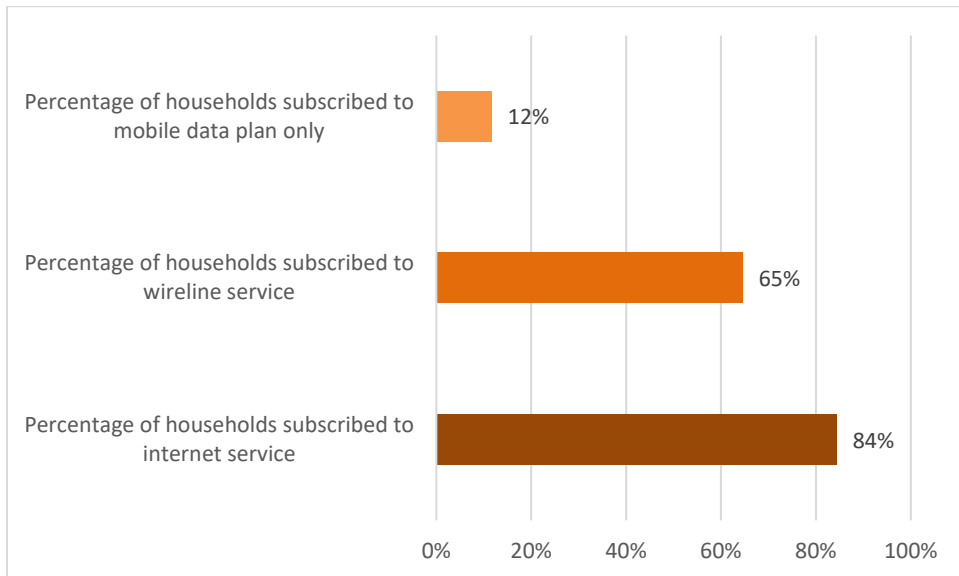
**Figure 15: Device ownership – Catron County**

Households with laptop/desktop



77%
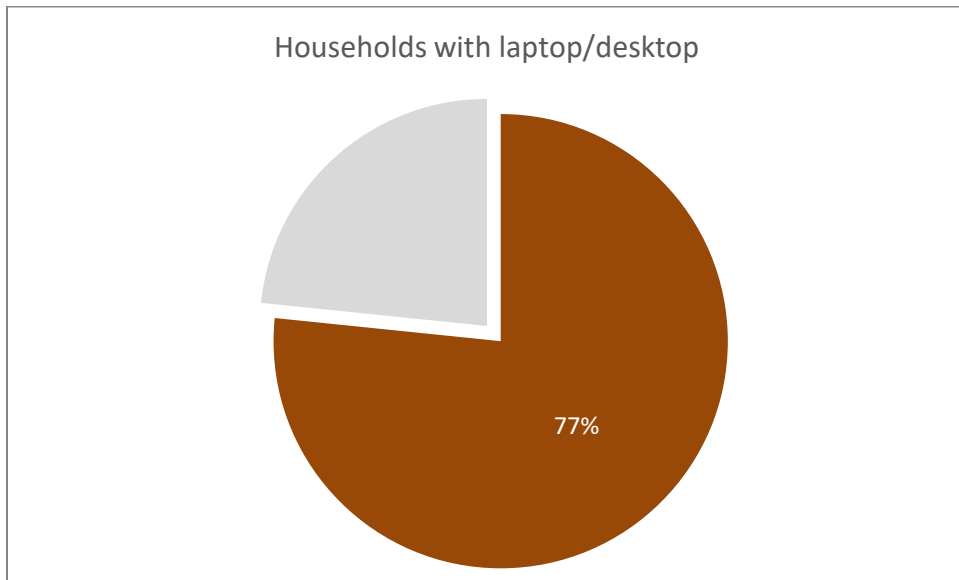
**Figure 16: Broadband affordability – Catron County**

Portion of eligible households enrolled in ACP



8%
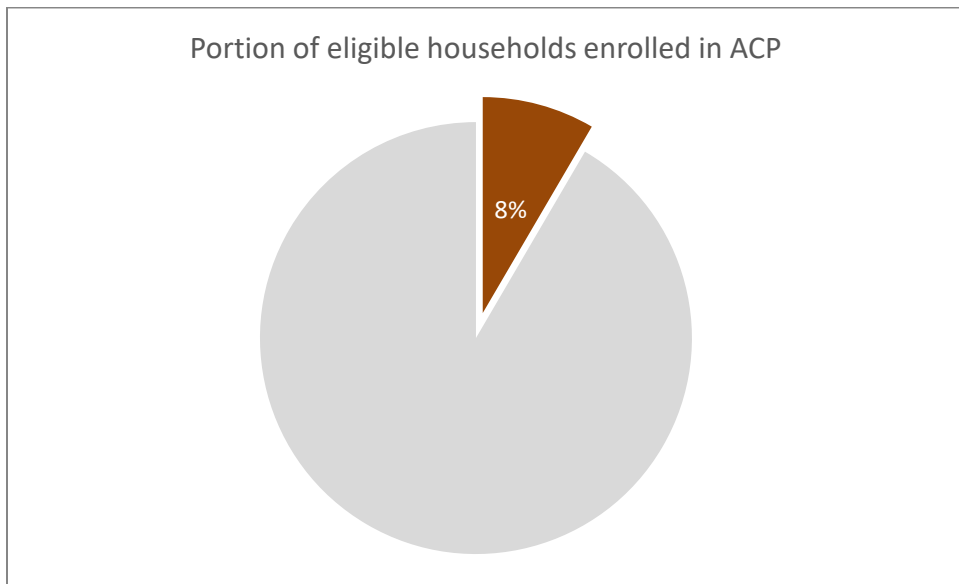
## Chaves County

**Figure 17: Broadband service availability – Chaves County**



Percentage of locations with access to at least 100 / 100 — 36%

Percentage of locations with access to at least 100 / 20 — 87%

Percentage of locations with access to at least 25 / 3 — 91%
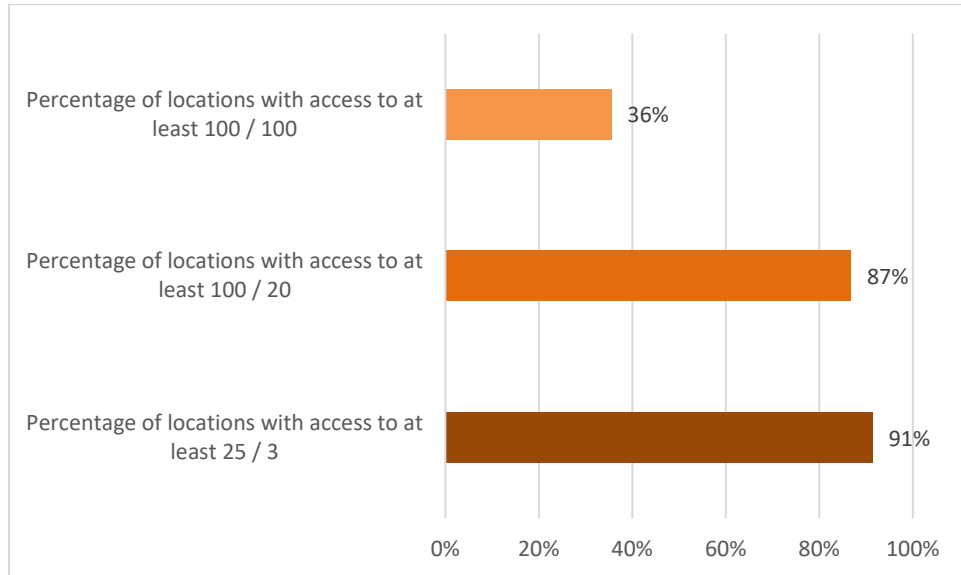
**Figure 18: Broadband adoption – Chaves County**



Percentage of households subscribed to mobile data plan only — 17%

Percentage of households subscribed to wireline service — 49%

Percentage of households subscribed to internet service — 74%
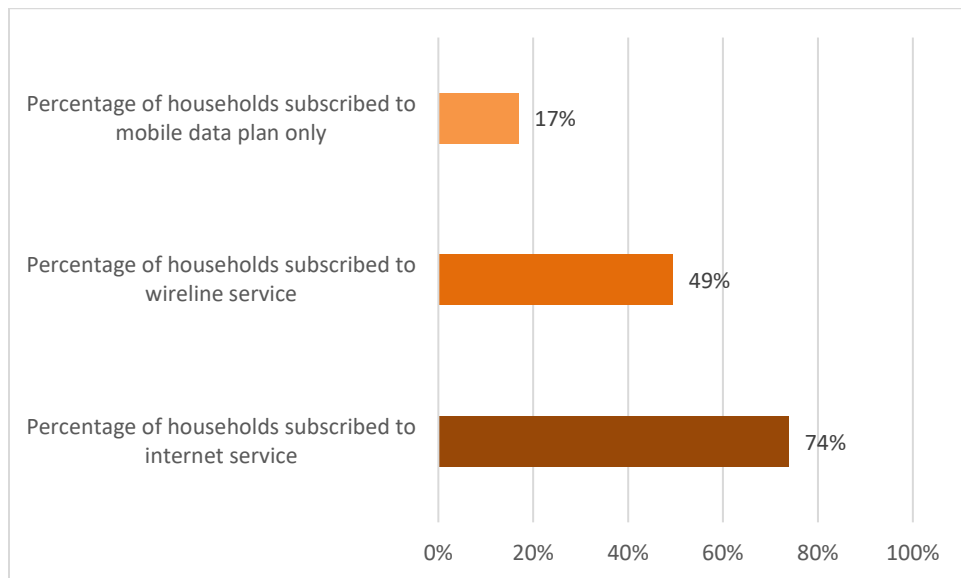
**Figure 19: Device ownership – Chaves County**

Households with laptop/desktop

65%
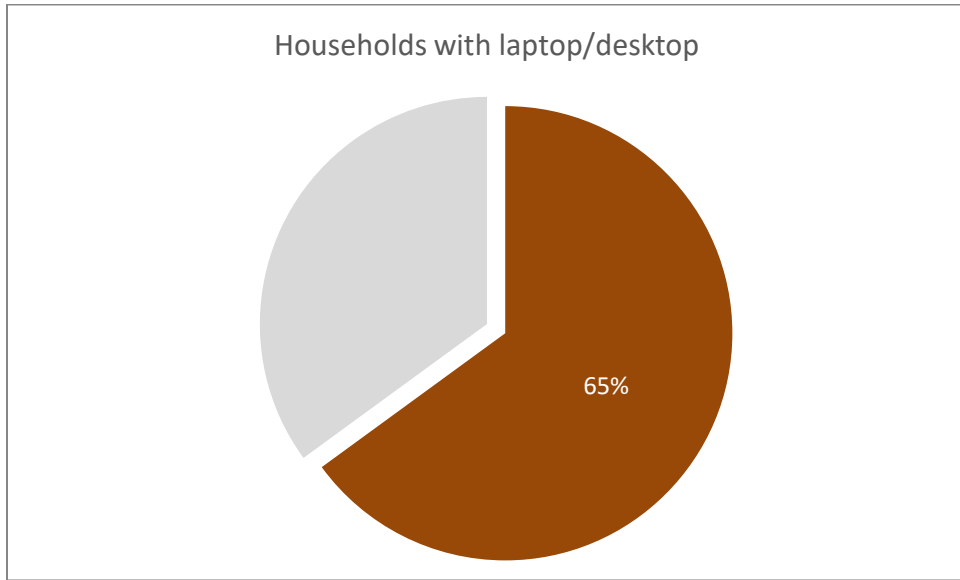
**Figure 20: Broadband affordability – Chaves County**

Portion of eligible households enrolled in ACP

52%
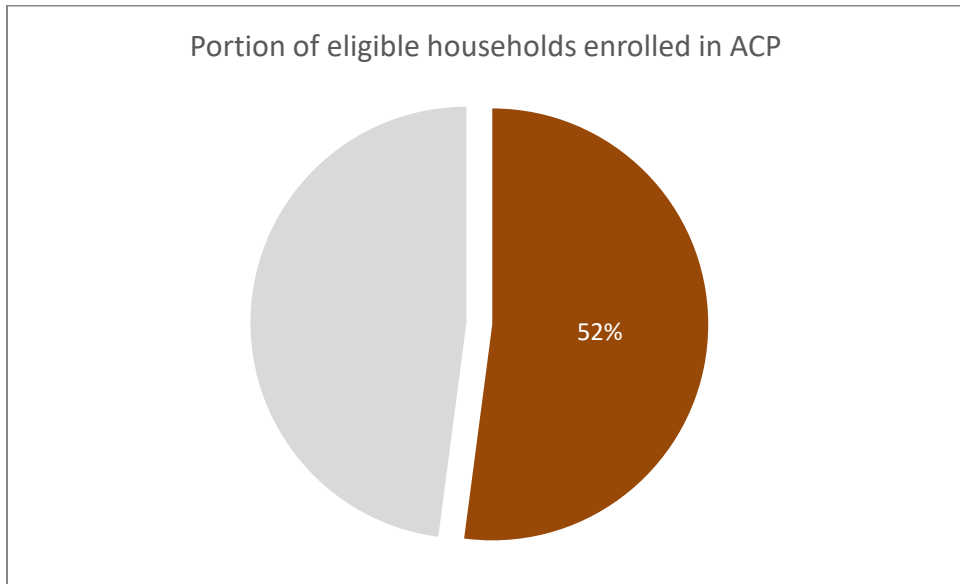
# Cibola County

## Figure 21: Broadband service availability – Cibola County
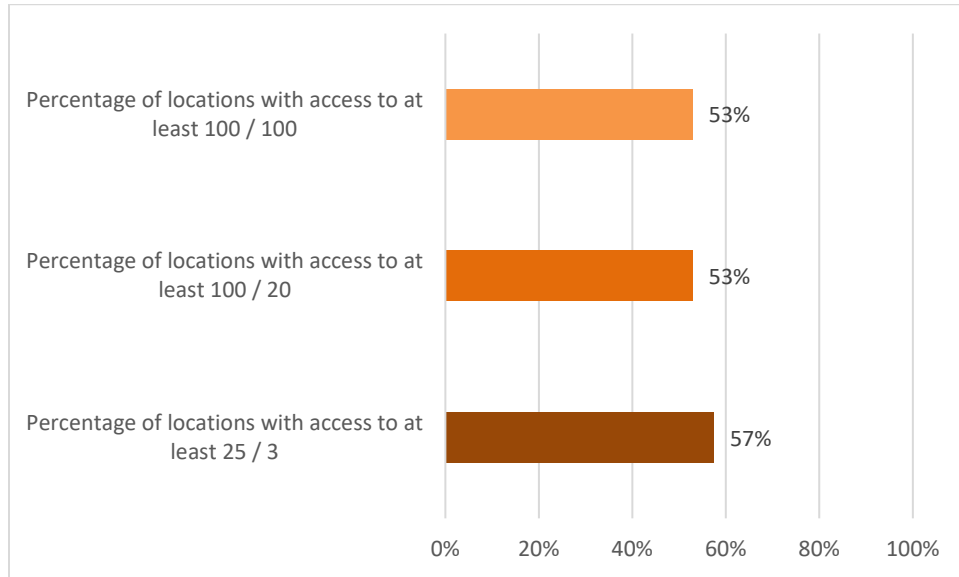


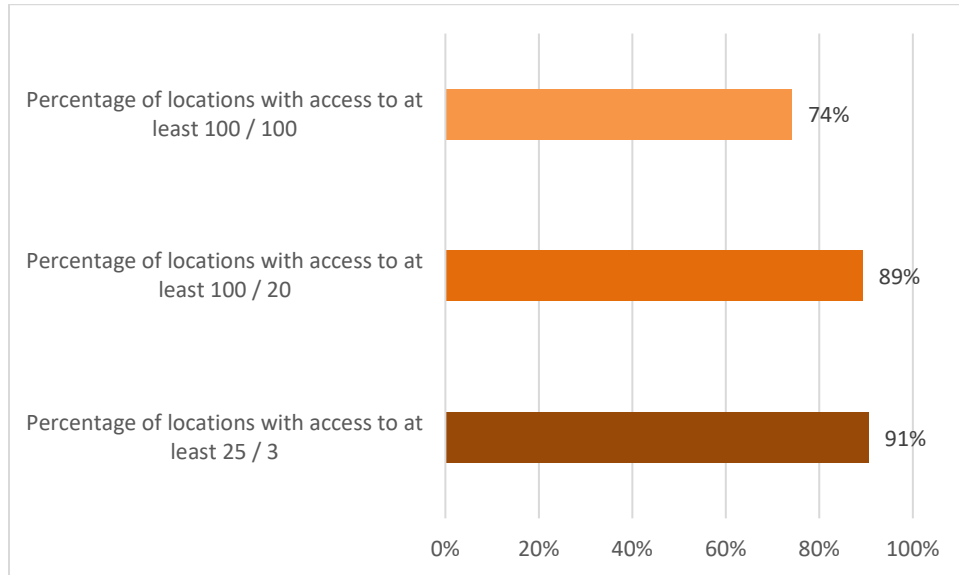## Figure 22: Broadband adoption – Cibola County
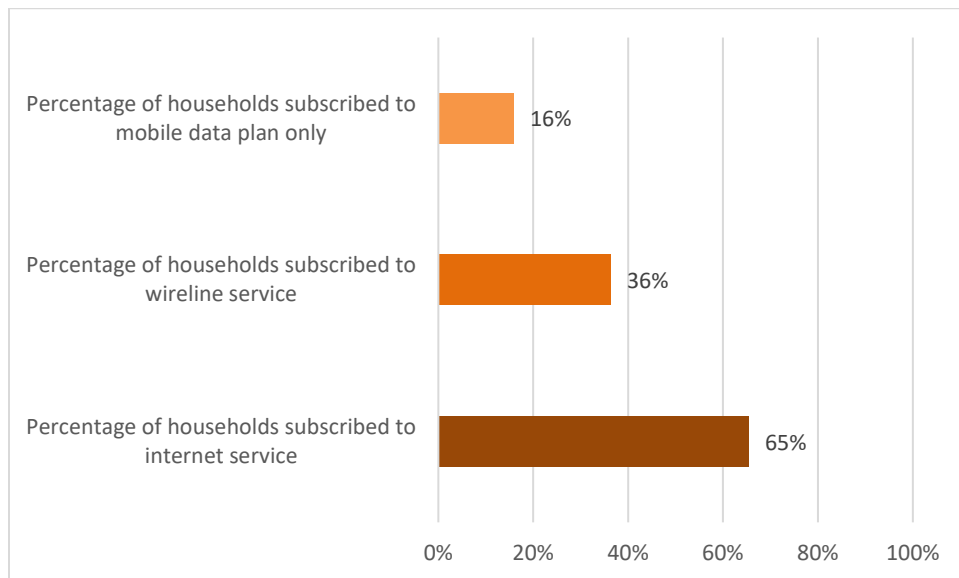
**Figure 23: Device ownership – Cibola County**

Households with laptop/desktop

57%
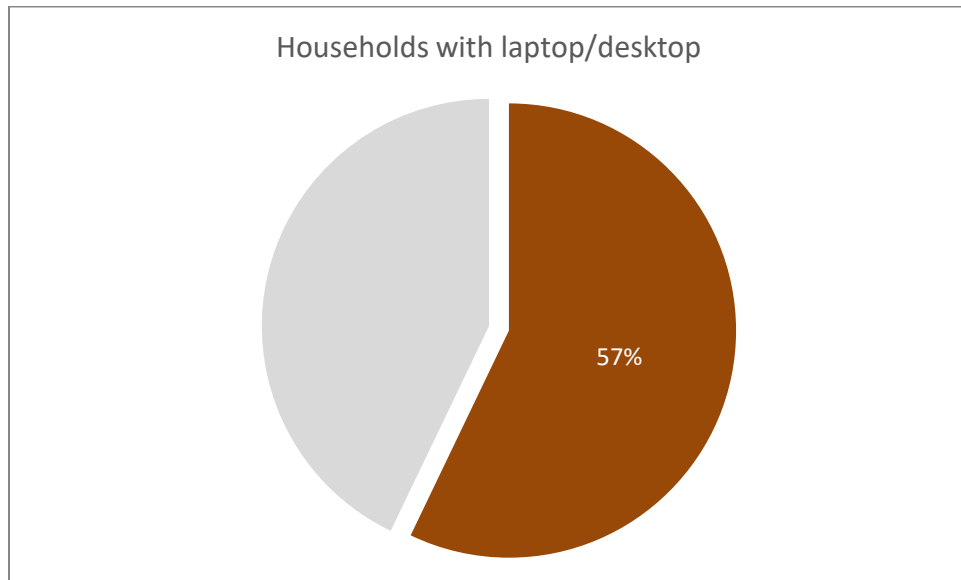
**Figure 24: Broadband affordability – Cibola County**

Portion of eligible households enrolled in ACP

36%
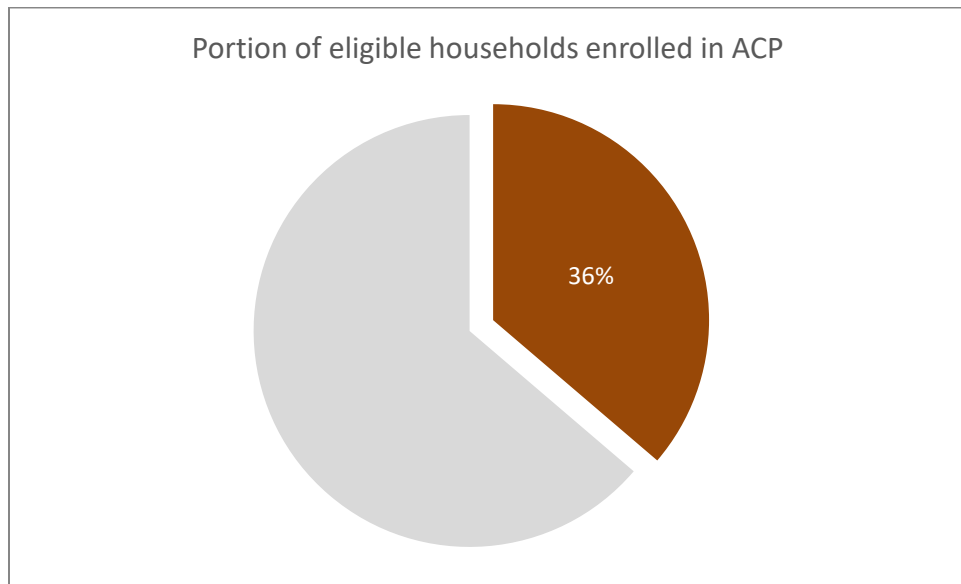
## Colfax County

**Figure 25: Broadband service availability – Colfax County**



- Percentage of locations with access to at least 100 / 100: 25%
- Percentage of locations with access to at least 100 / 20: 25%
- Percentage of locations with access to at least 25 / 3: 47%
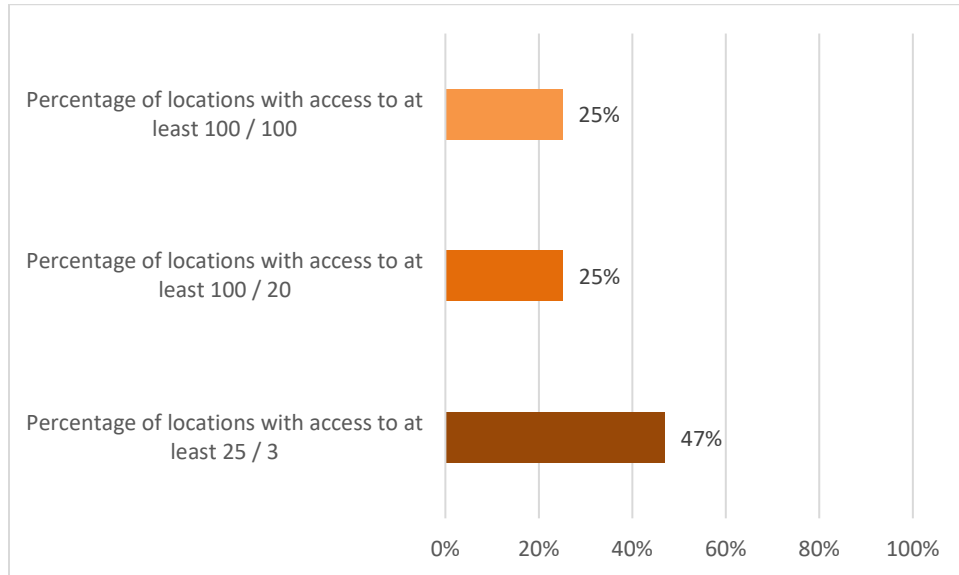
**Figure 26: Broadband adoption – Colfax County**



- Percentage of households subscribed to mobile data plan only: 15%
- Percentage of households subscribed to wireline service: 52%
- Percentage of households subscribed to internet service: 75%
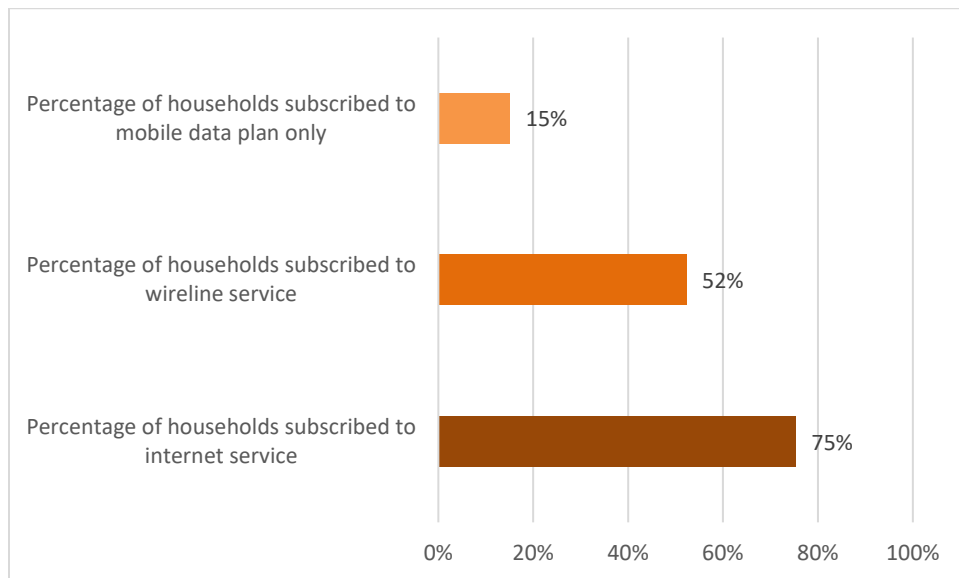
**Figure 27: Device ownership – Colfax County**



Households with laptop/desktop

64%
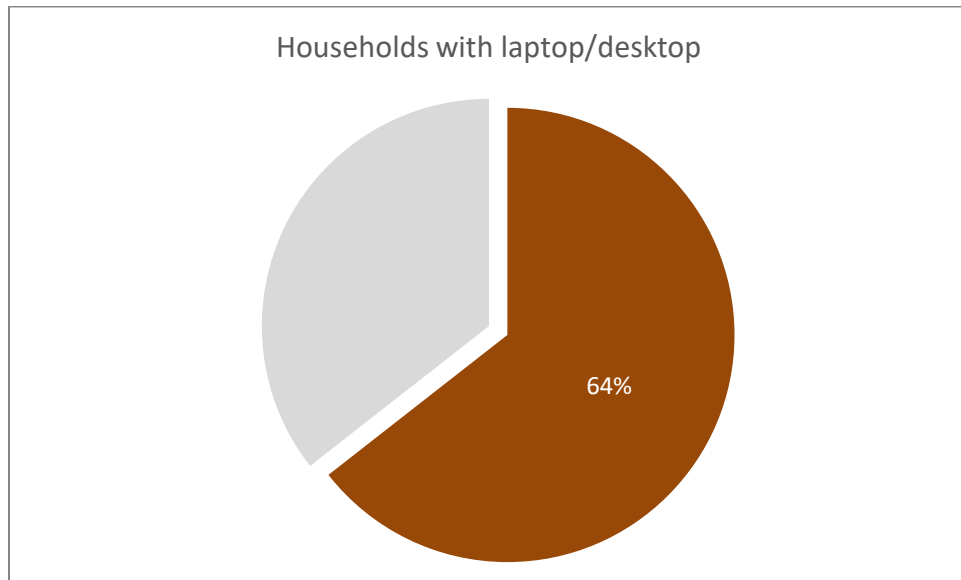
**Figure 28: Broadband affordability – Colfax County**



Portion of eligible households enrolled in ACP

17%
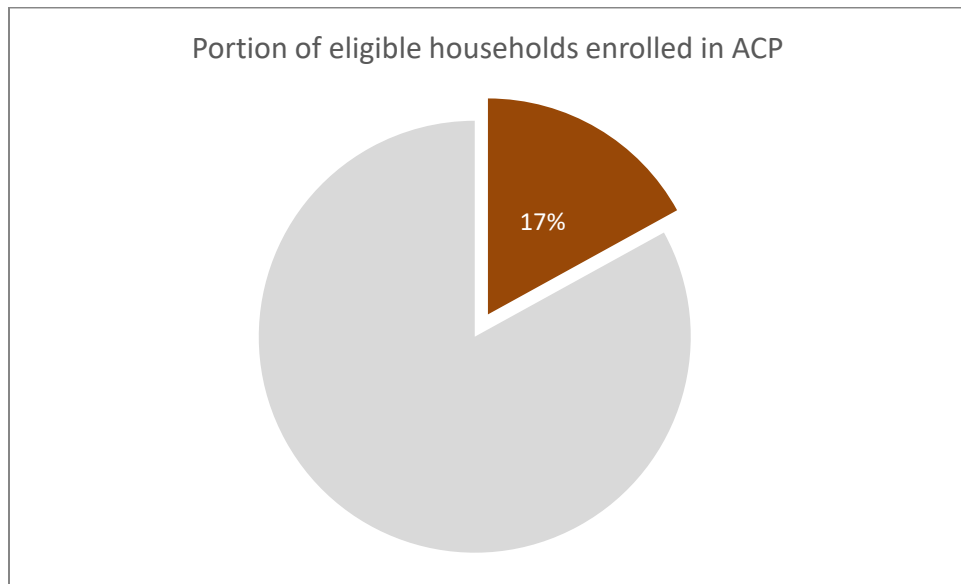
## Curry County

**Figure 29: Broadband service availability – Curry County**



| Category | Percentage |
|---|---|
| Percentage of locations with access to at least 100 / 100 | 85% |
| Percentage of locations with access to at least 100 / 20 | 92% |
| Percentage of locations with access to at least 25 / 3 | 93% |
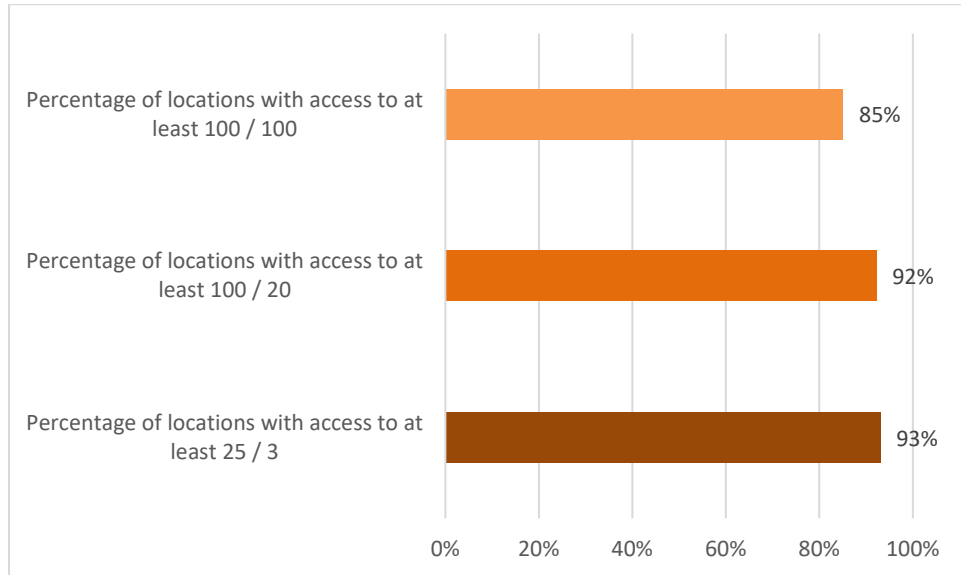
**Figure 30: Broadband adoption – Curry County**



| Category | Percentage |
|---|---|
| Percentage of households subscribed to mobile data plan only | 18% |
| Percentage of households subscribed to wireline service | 64% |
| Percentage of households subscribed to internet service | 85% |
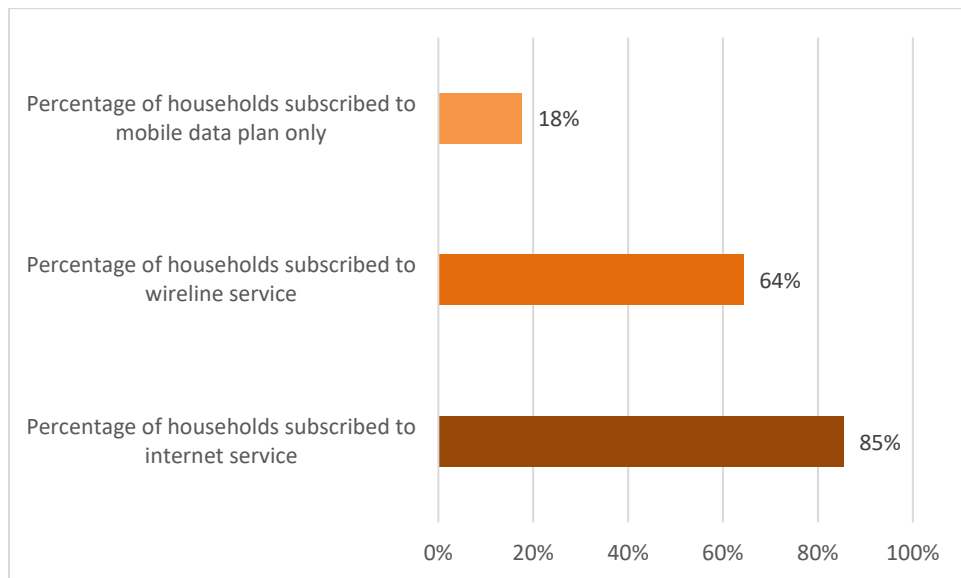
**Figure 31: Device ownership – Curry County**

Households with laptop/desktop

70%
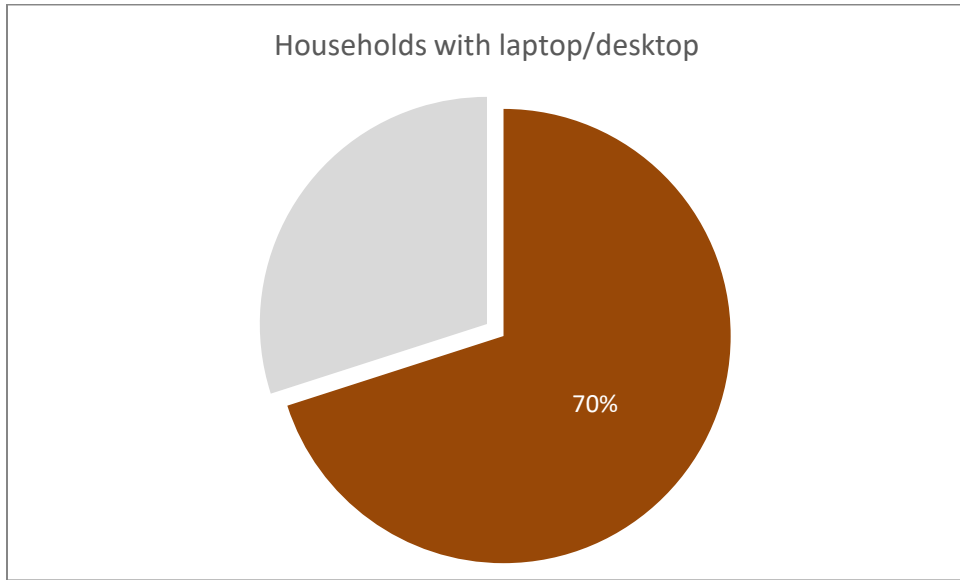
**Figure 32: Broadband affordability – Curry County**

Portion of eligible households enrolled in ACP

33%
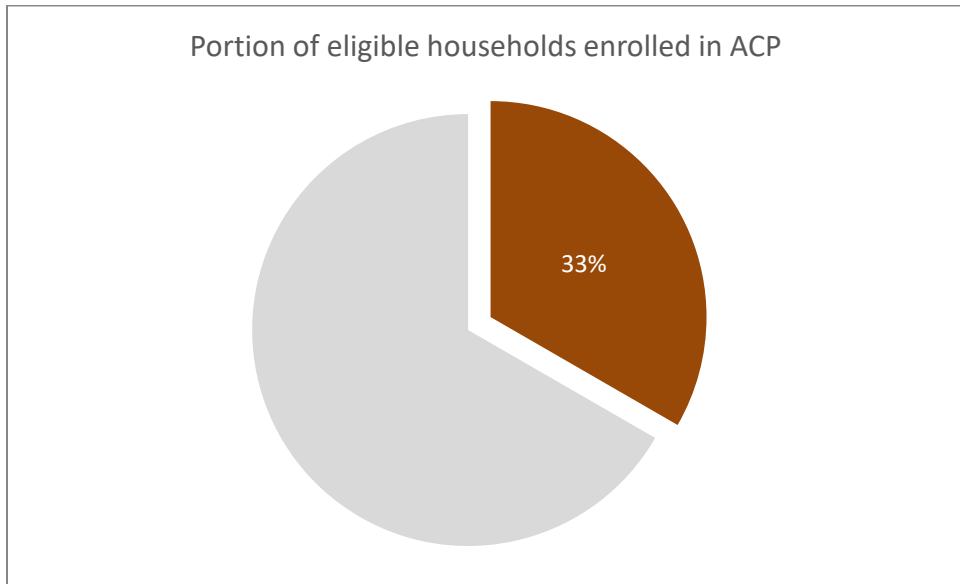
## De Baca County

**Figure 33: Broadband service availability – De Baca County**



| | |
|---|---|
| Percentage of locations with access to at least 100 / 100 | 86% |
| Percentage of locations with access to at least 100 / 20 | 86% |
| Percentage of locations with access to at least 25 / 3 | 87% |
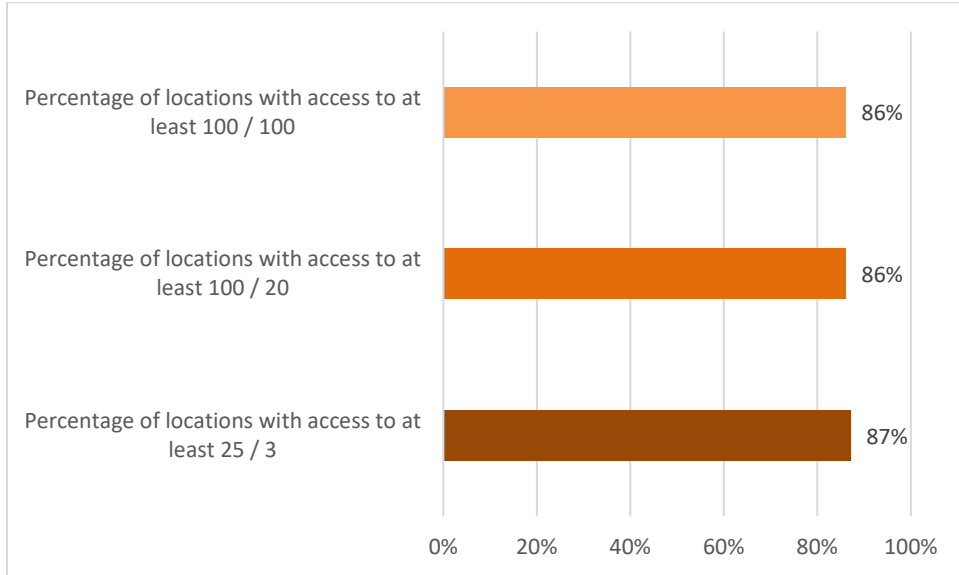
**Figure 34: Broadband adoption – De Baca County**



| | |
|---|---|
| Percentage of households subscribed to mobile data plan only | 8% |
| Percentage of households subscribed to wireline service | 48% |
| Percentage of households subscribed to internet service | 76% |
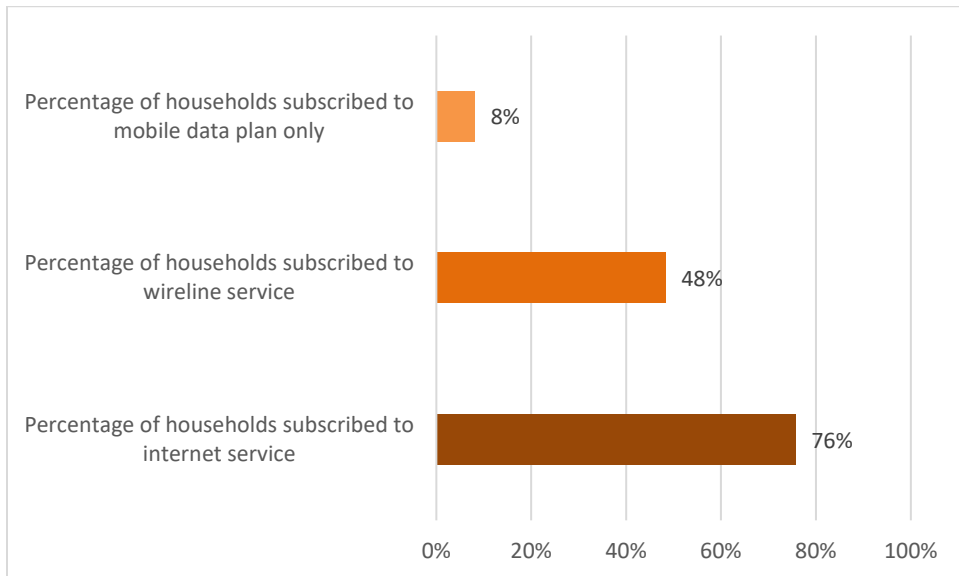
**Figure 35: Device ownership – De Baca County**

### Households with laptop/desktop

61%
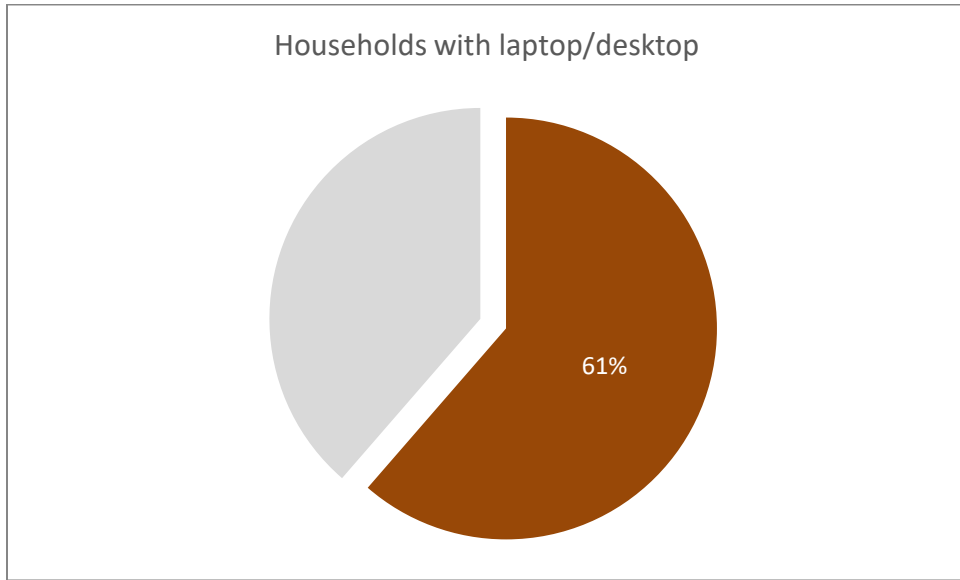
**Figure 36: Broadband affordability – De Baca County**

### Portion of eligible households enrolled in ACP

17%
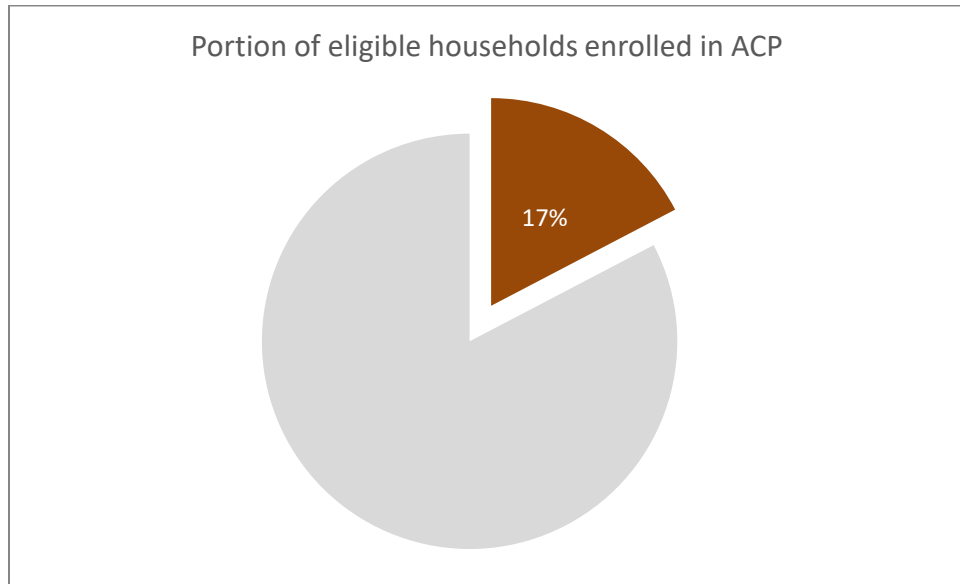
## Doña Ana County

**Figure 37: Broadband service availability – Doña Ana County**
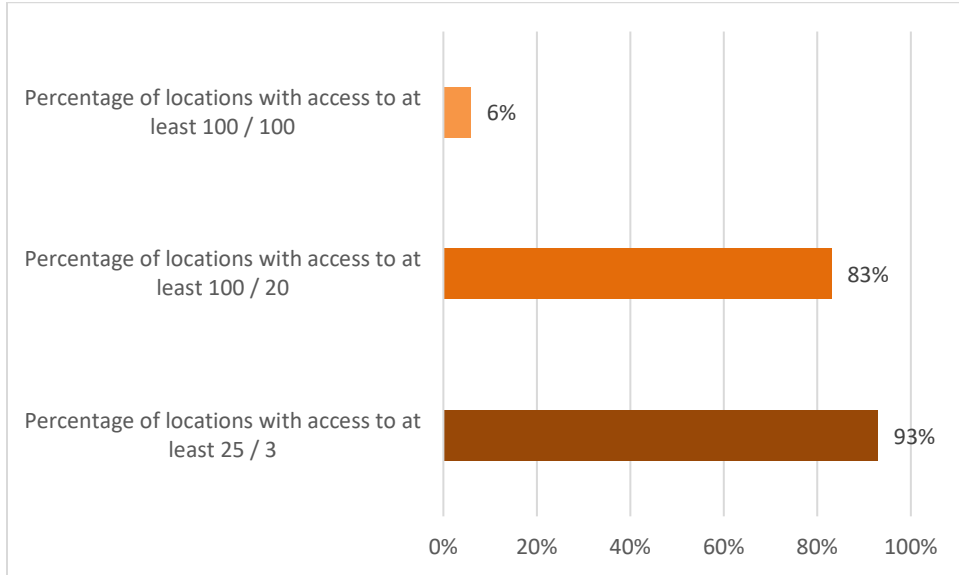


**Figure 38: Broadband adoption – Doña Ana County**
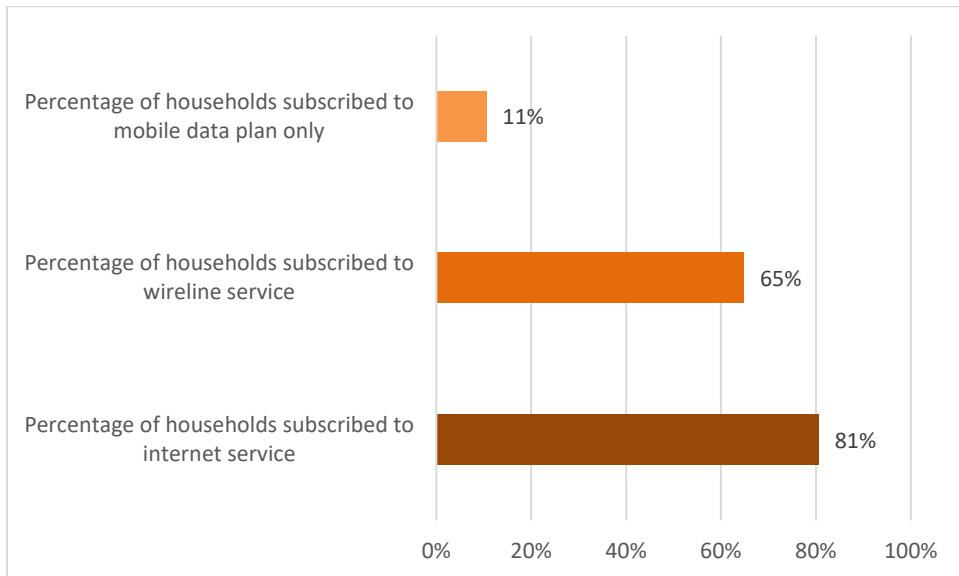
**Figure 39: Device ownership – Doña Ana County**

Households with laptop/desktop

73%
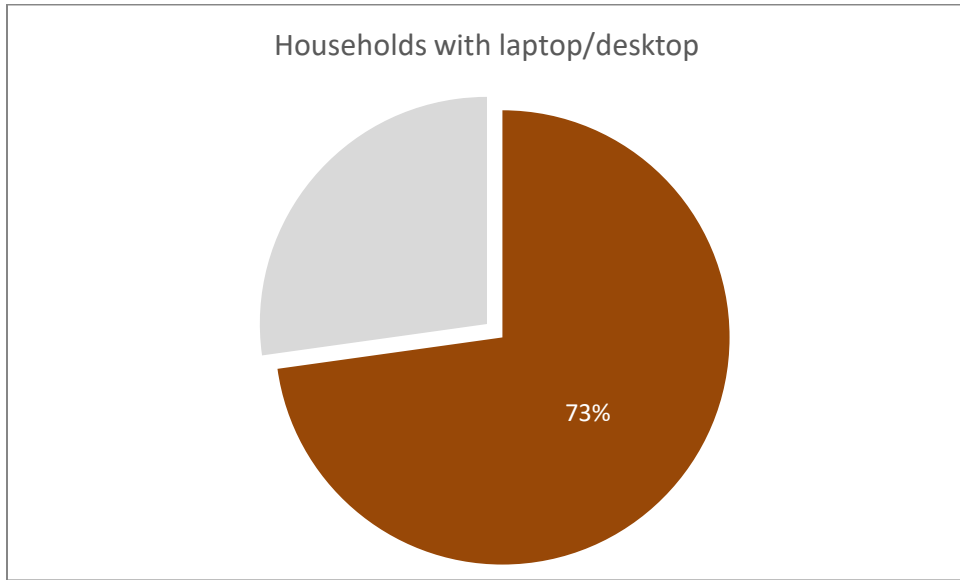
**Figure 40: Broadband affordability – Doña Ana County**

Portion of eligible households enrolled in ACP

45%
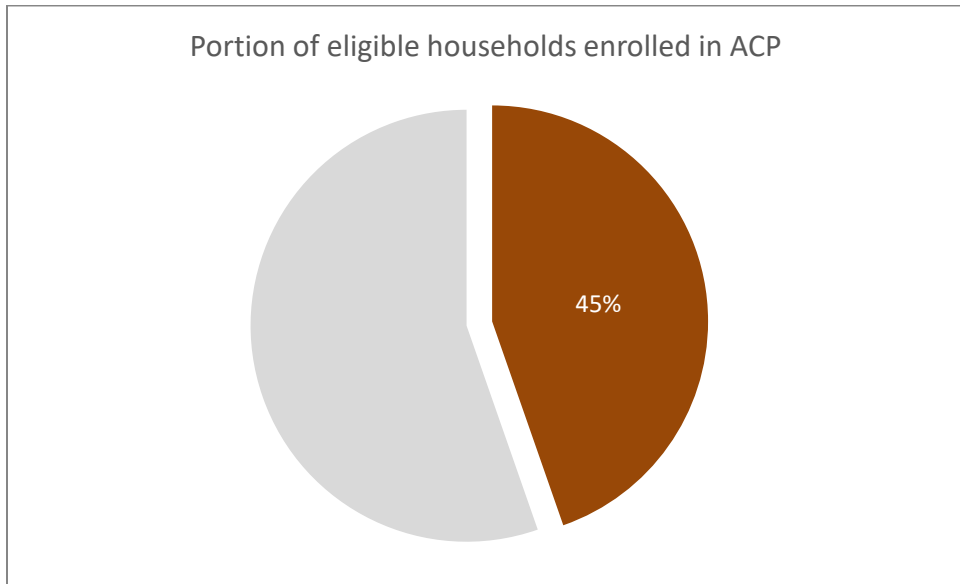
## Eddy County

**Figure 41: Broadband service availability – Eddy County**



| | |
|---|---|
| Percentage of locations with access to at least 100 / 100 | 39% |
| Percentage of locations with access to at least 100 / 20 | 86% |
| Percentage of locations with access to at least 25 / 3 | 89% |
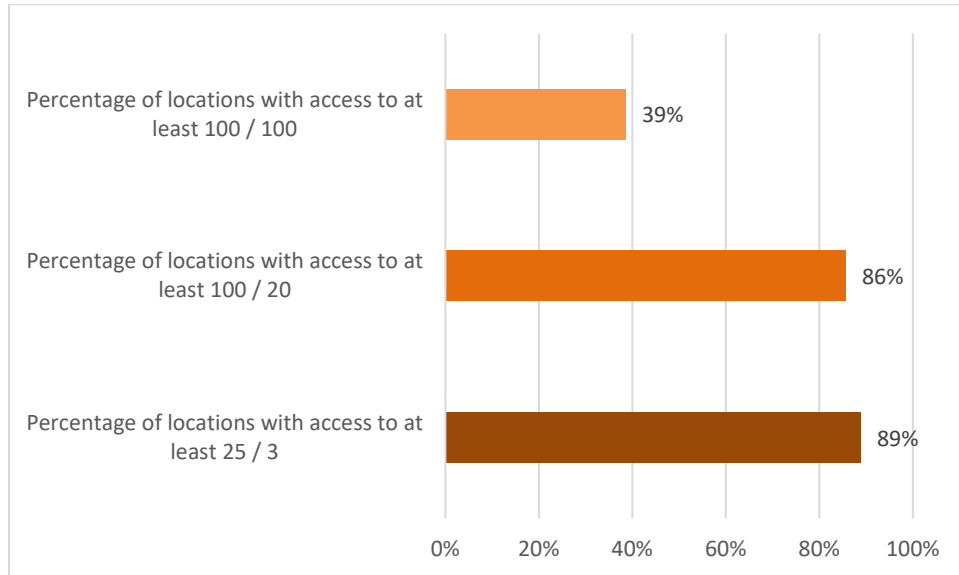
**Figure 42: Broadband adoption – Eddy County**



| | |
|---|---|
| Percentage of households subscribed to mobile data plan only | 18% |
| Percentage of households subscribed to wireline service | 59% |
| Percentage of households subscribed to internet service | 82% |
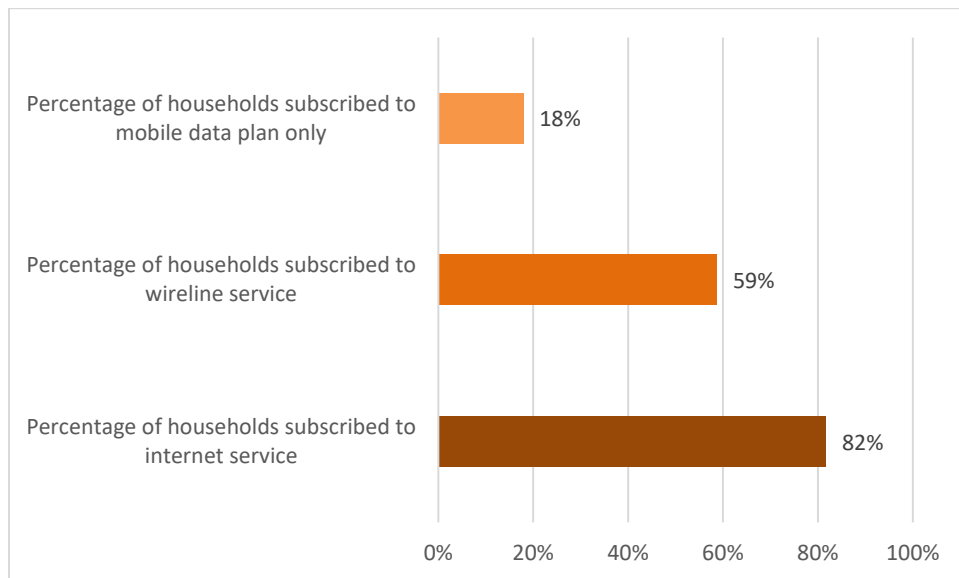
**Figure 43: Device ownership – Eddy County**



Households with laptop/desktop

71%
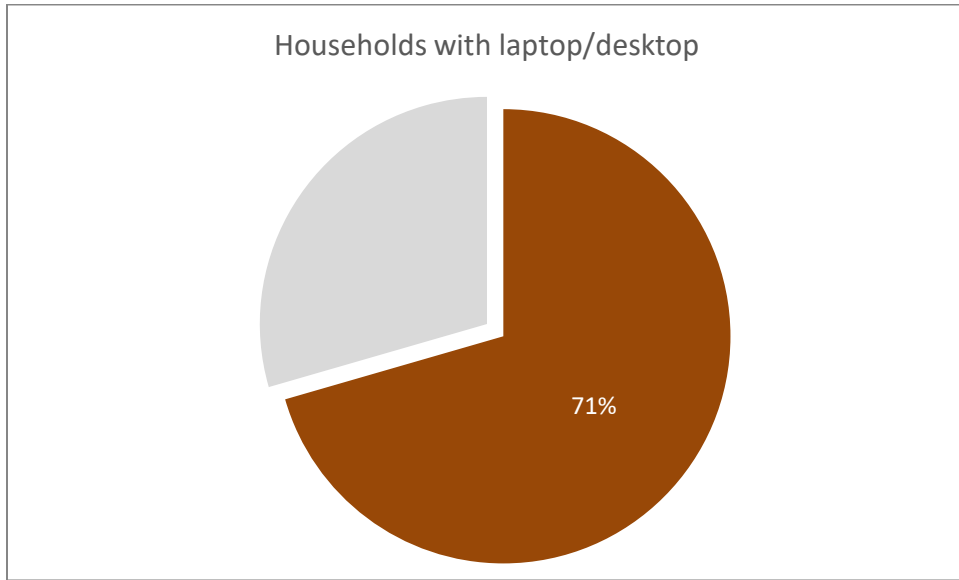
**Figure 44: Broadband affordability – Eddy County**



Portion of eligible households enrolled in ACP

31%
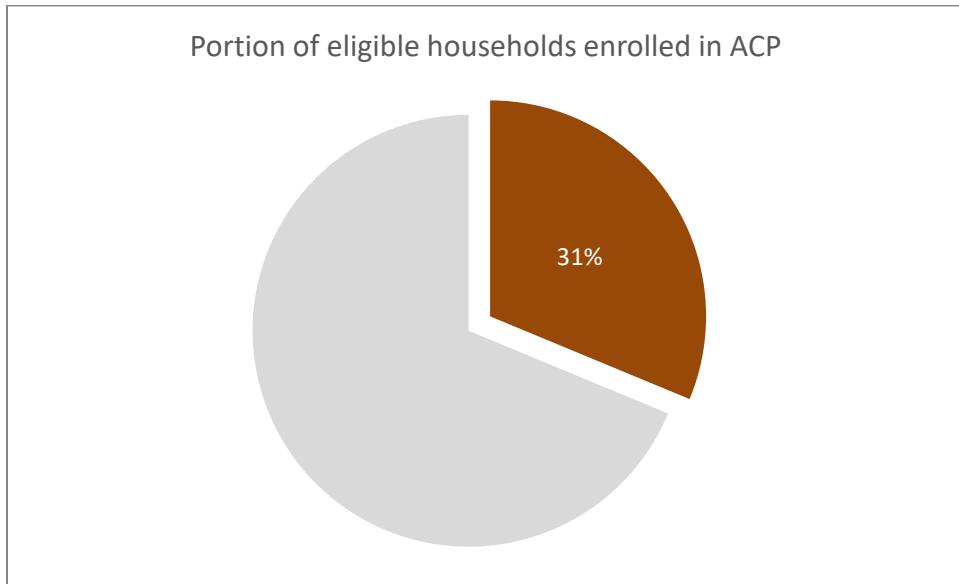
## Grant County

**Figure 45: Broadband service availability – Grant County**

Percentage of locations with access to at least 100 / 100: 0%

Percentage of locations with access to at least 100 / 20: 67%

Percentage of locations with access to at least 25 / 3: 87%
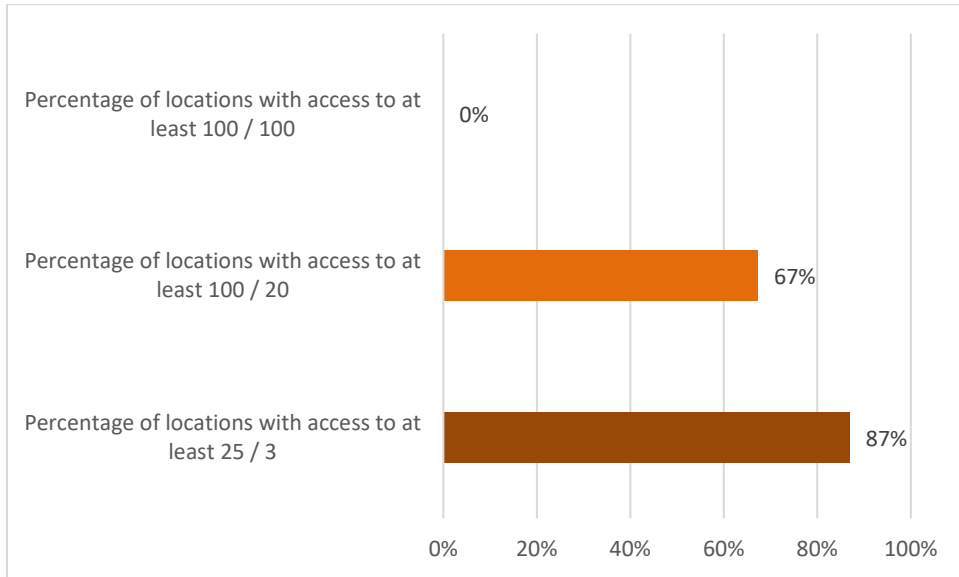
**Figure 46: Broadband adoption – Grant County**

Percentage of households subscribed to mobile data plan only: 15%

Percentage of households subscribed to wireline service: 57%

Percentage of households subscribed to internet service: 81%
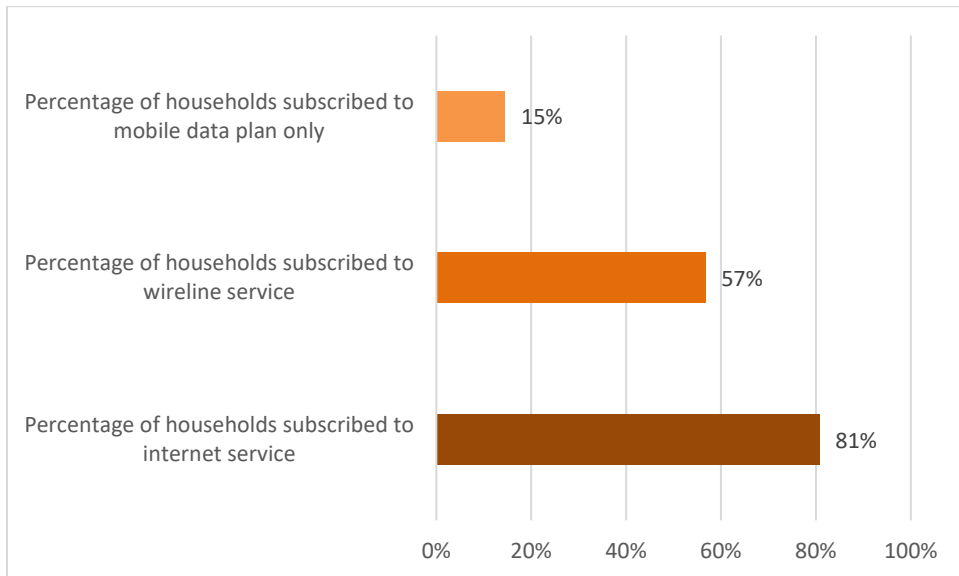
**Figure 47: Device ownership – Grant County**

Households with laptop/desktop

69%
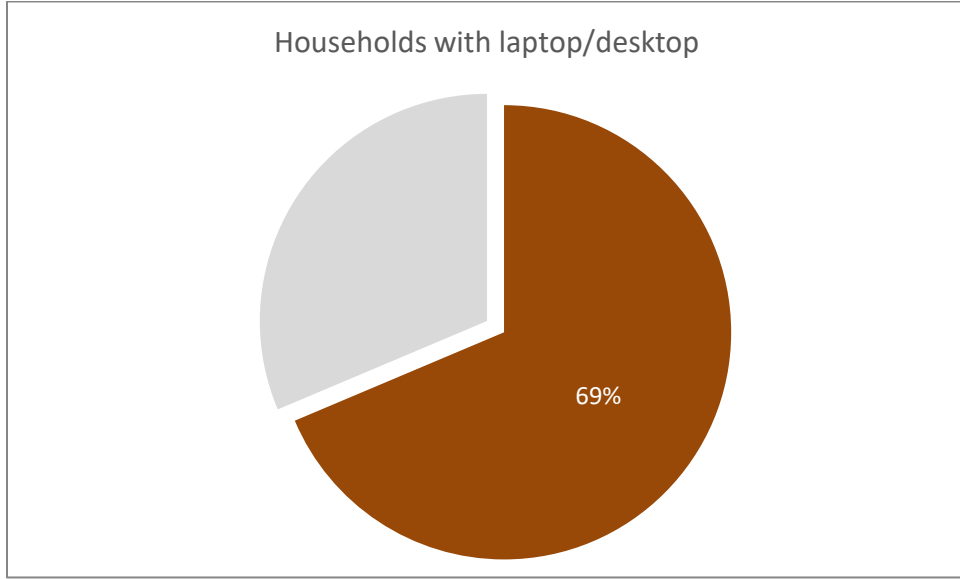
**Figure 48: Broadband affordability – Grant County**

Portion of eligible households enrolled in ACP

35%
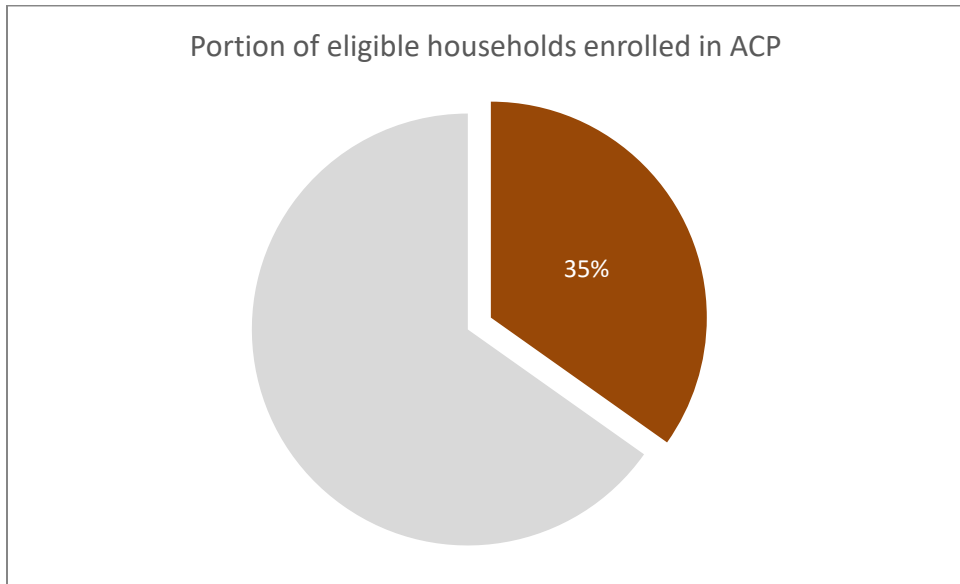
## Guadalupe County

**Figure 49: Broadband service availability – Guadalupe County**
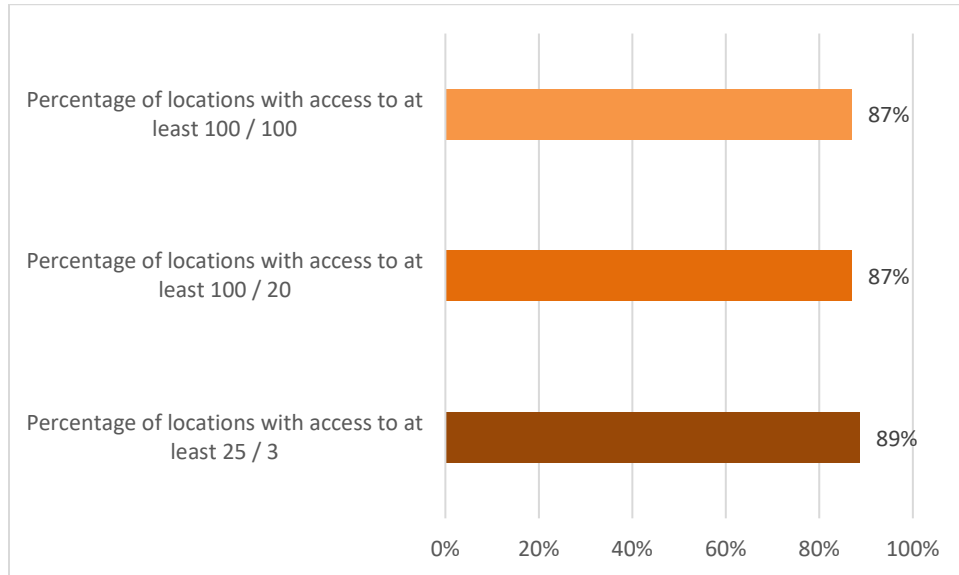


**Figure 50: Broadband adoption – Guadalupe County**
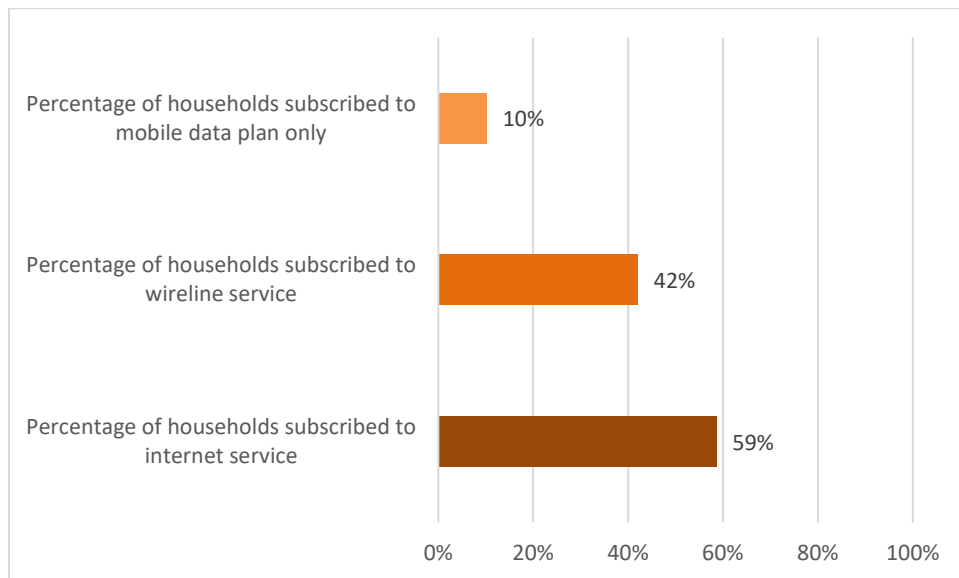
**Figure 51: Device ownership – Guadalupe County**

Households with laptop/desktop



42%
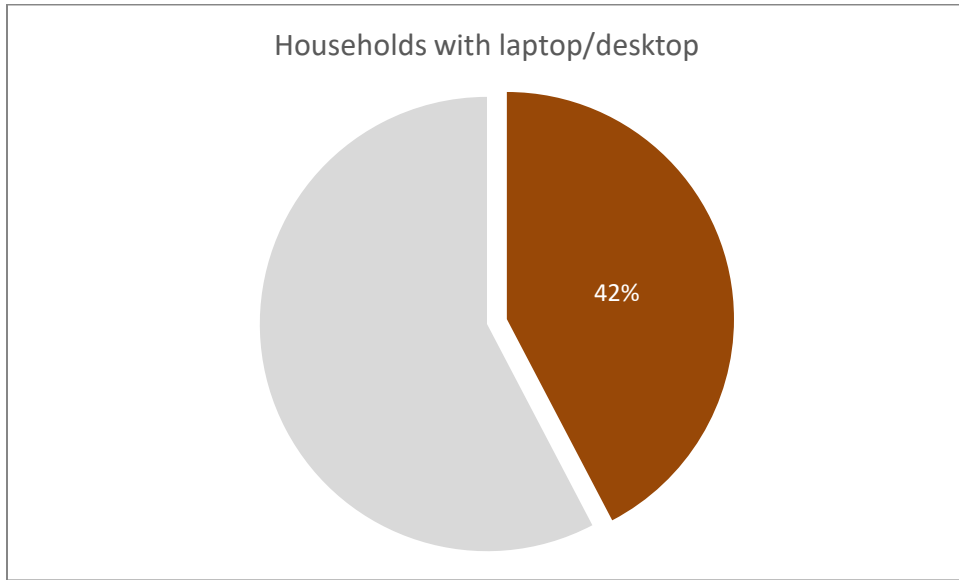
**Figure 52: Broadband affordability – Guadalupe County**

Portion of eligible households enrolled in ACP



33%
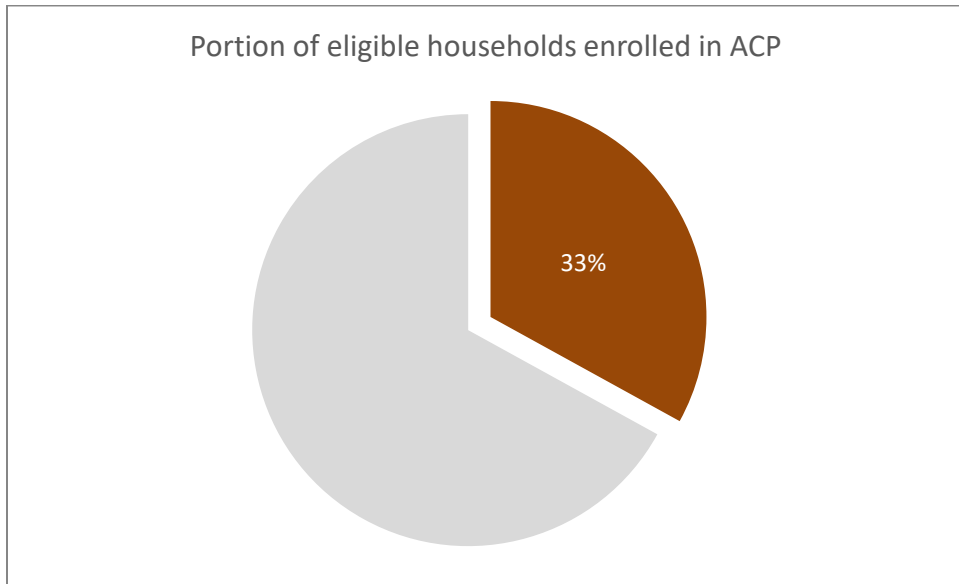
## Harding County

**Figure 53: Broadband service availability – Harding County**

| | |
|---|---|
| Percentage of locations with access to at least 100 / 100 | 68% |
| Percentage of locations with access to at least 100 / 20 | 68% |
| Percentage of locations with access to at least 25 / 3 | 69% |
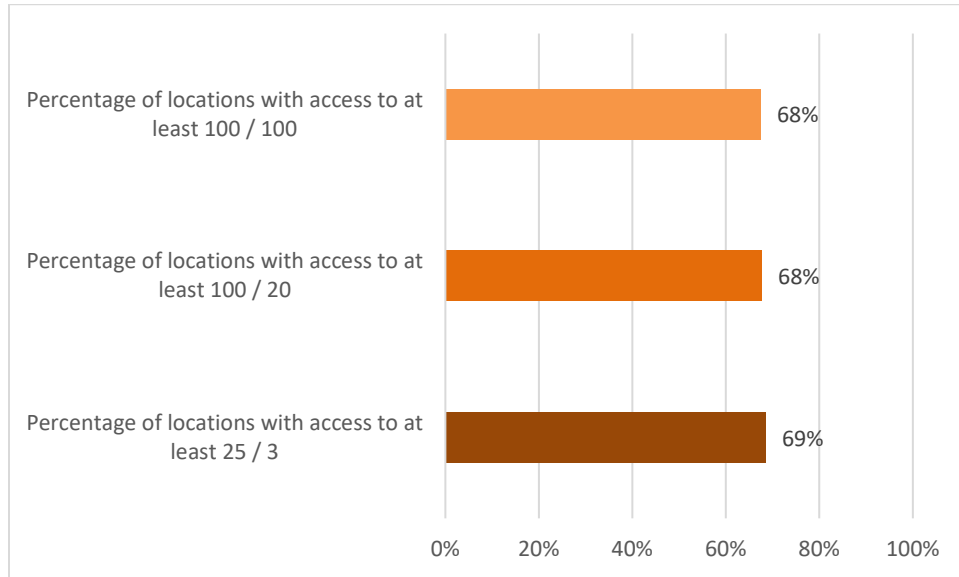
**Figure 54: Broadband adoption – Harding County**

| | |
|---|---|
| Percentage of households subscribed to mobile data plan only | 7% |
| Percentage of households subscribed to wireline service | 43% |
| Percentage of households subscribed to internet service | 52% |
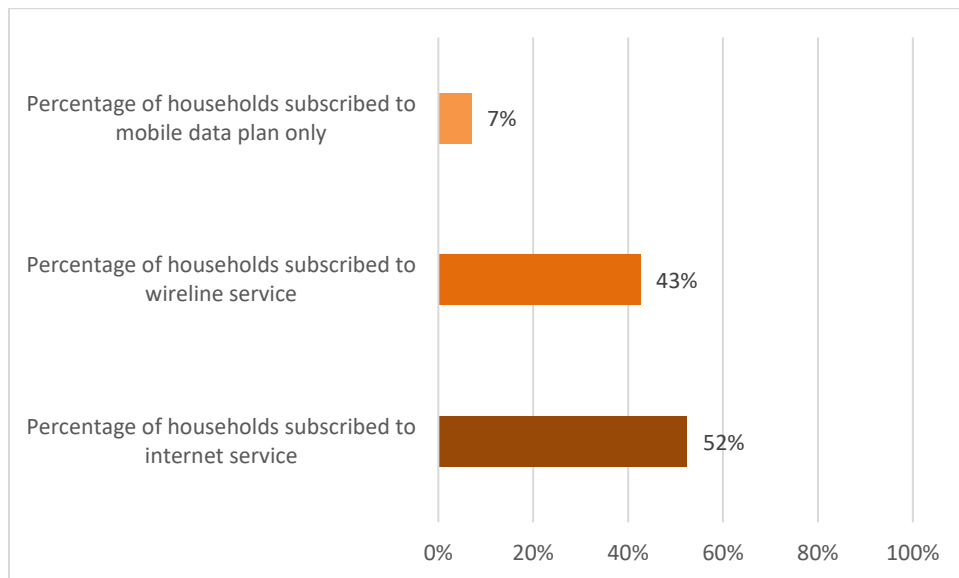
**Figure 55: Device ownership – Harding County**

Households with laptop/desktop



57%
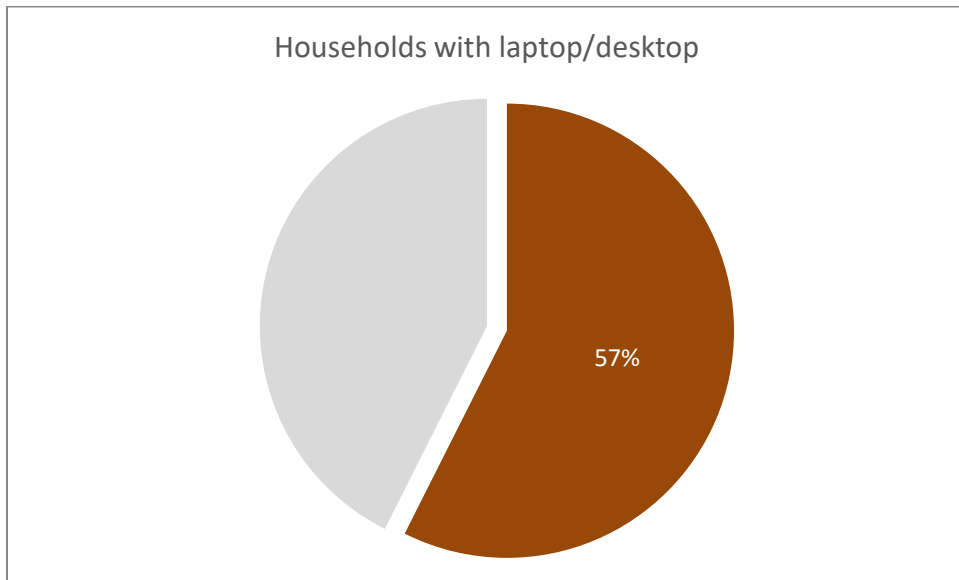
**Figure 56: Broadband affordability – Harding County**

Portion of eligible households enrolled in ACP



3%
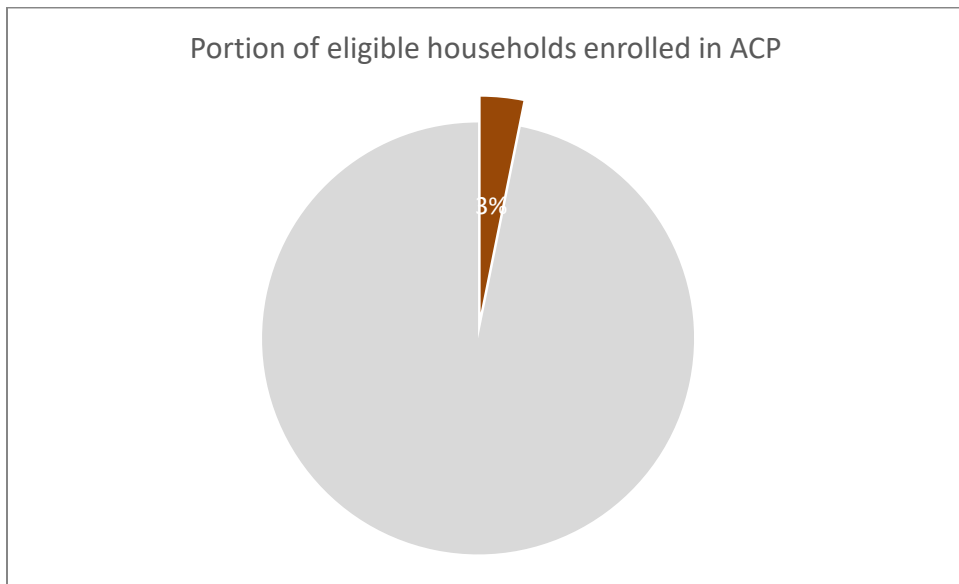
## Hidalgo County

**Figure 57: Broadband service availability – Hidalgo County**



- Percentage of locations with access to at least 100 / 100: 13%
- Percentage of locations with access to at least 100 / 20: 13%
- Percentage of locations with access to at least 25 / 3: 61%
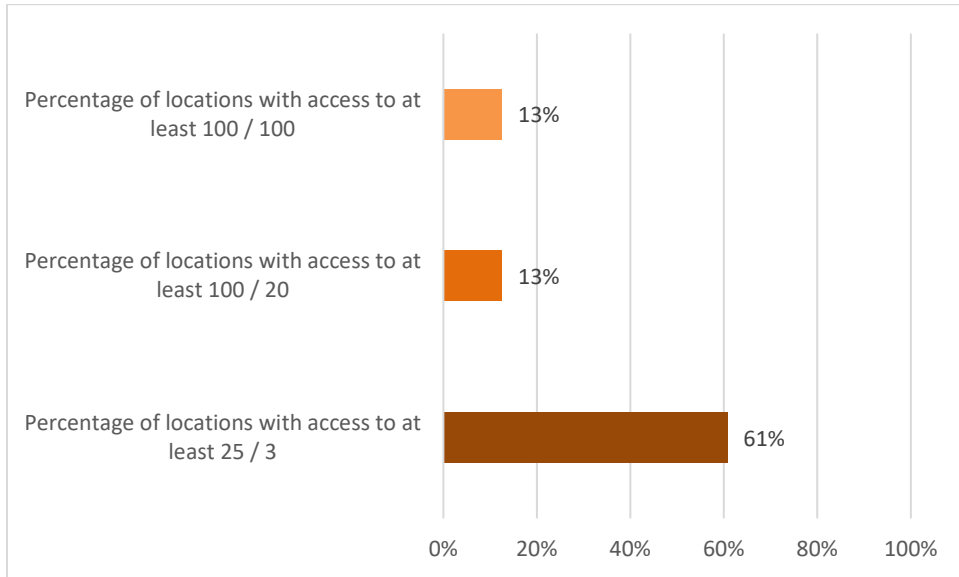
**Figure 58: Broadband adoption – Hidalgo County**



- Percentage of households subscribed to mobile data plan only: 16%
- Percentage of households subscribed to wireline service: 49%
- Percentage of households subscribed to internet service: 74%
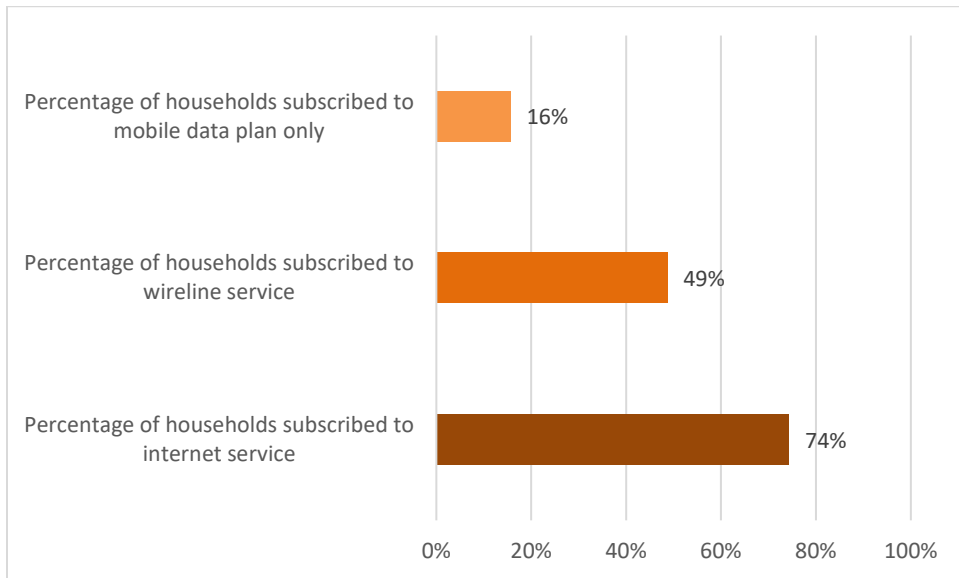
**Figure 59: Device ownership – Hidalgo County**

Households with laptop/desktop

60%
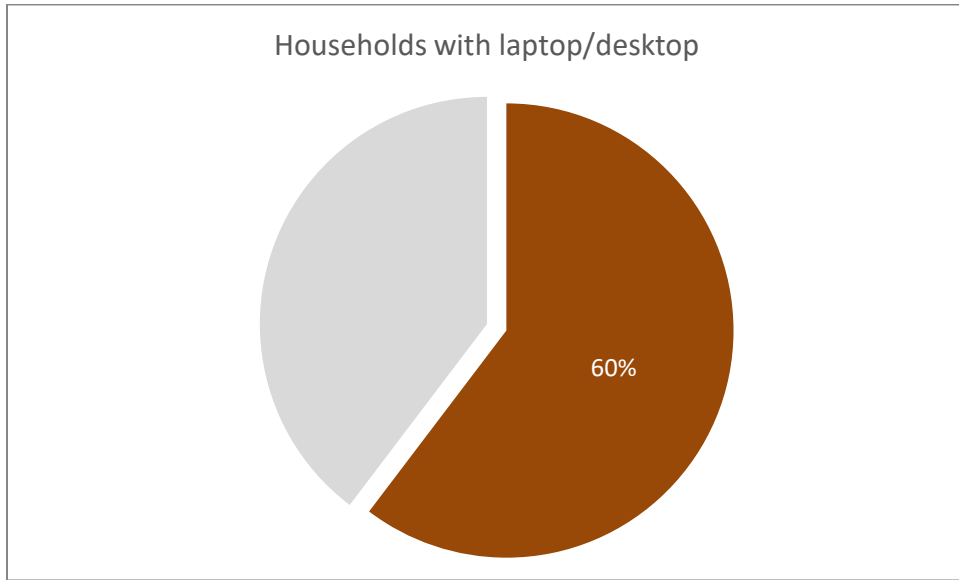
**Figure 60: Broadband affordability – Hidalgo County**

Portion of eligible households enrolled in ACP

42%
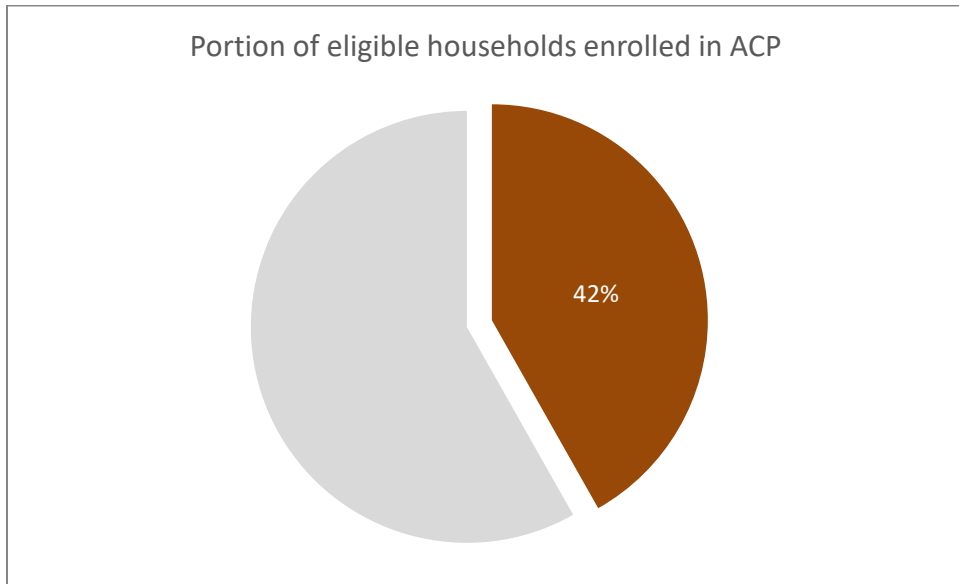
## Lea County

**Figure 61: Broadband service availability – Lea County**



**Figure 62: Broadband adoption – Lea County**
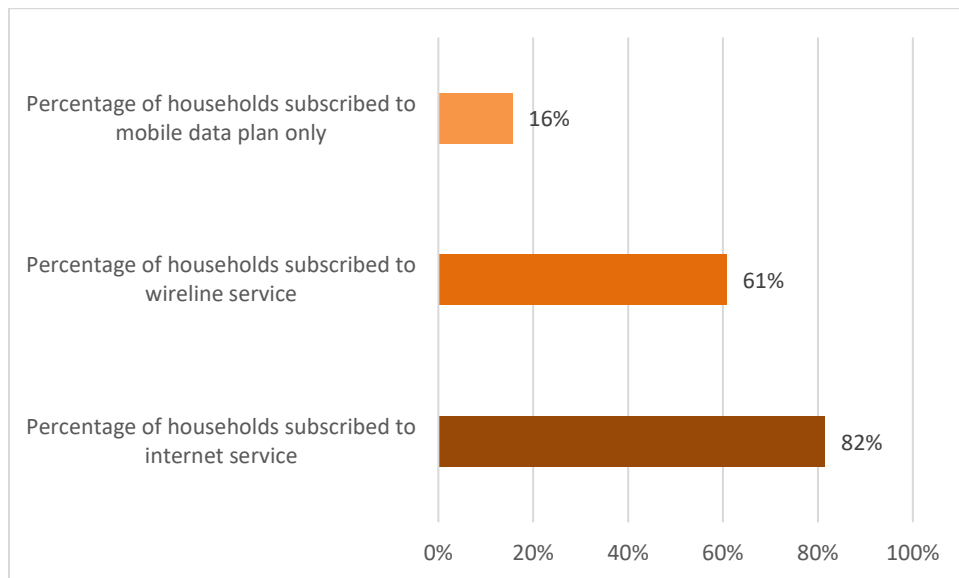
**Figure 63: Device ownership – Lea County**

Households with laptop/desktop

63%
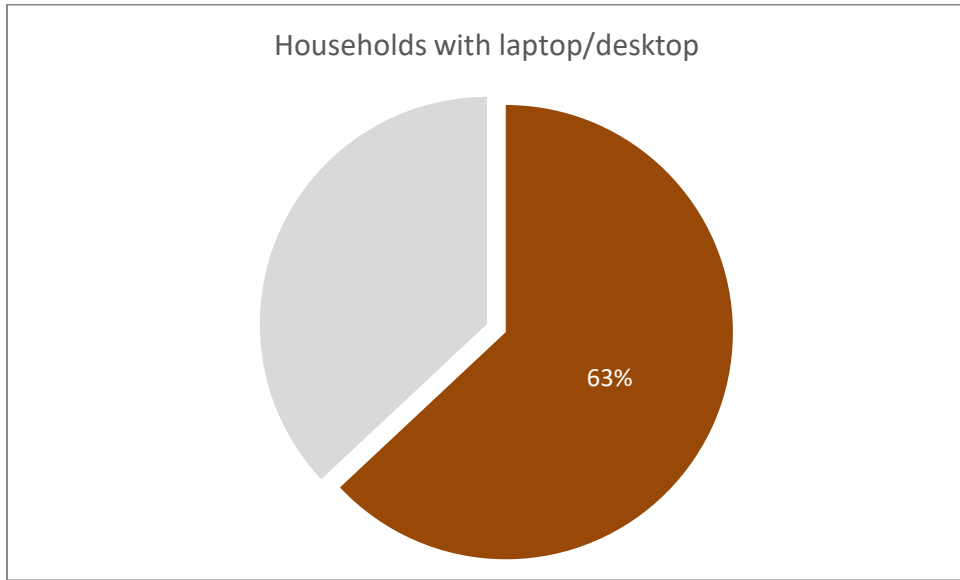
**Figure 64: Broadband affordability – Lea County**

Portion of eligible households enrolled in ACP

37%
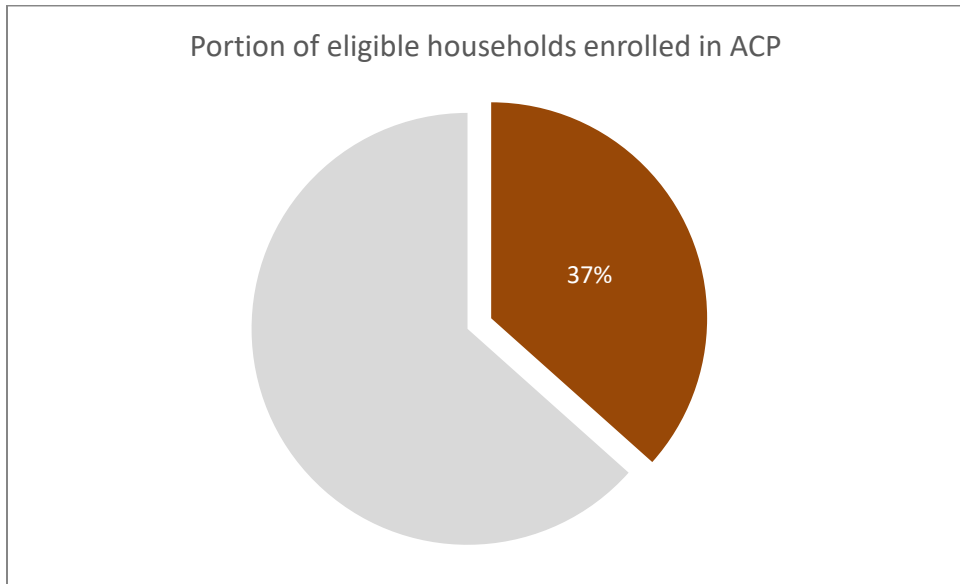
## Lincoln County

**Figure 65: Broadband service availability – Lincoln County**
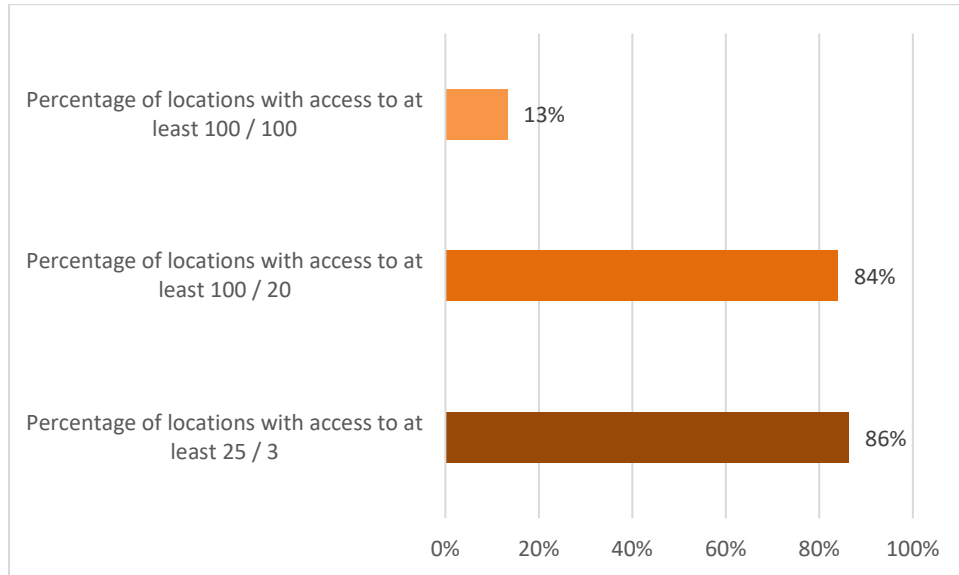


**Figure 66: Broadband adoption – Lincoln County**
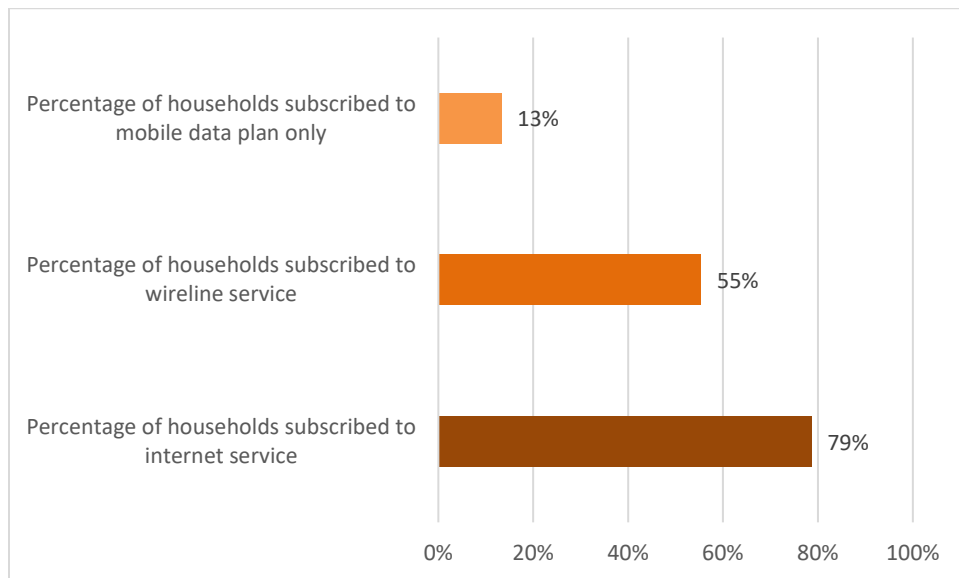
**Figure 67: Device ownership – Lincoln County**

Households with laptop/desktop

71%
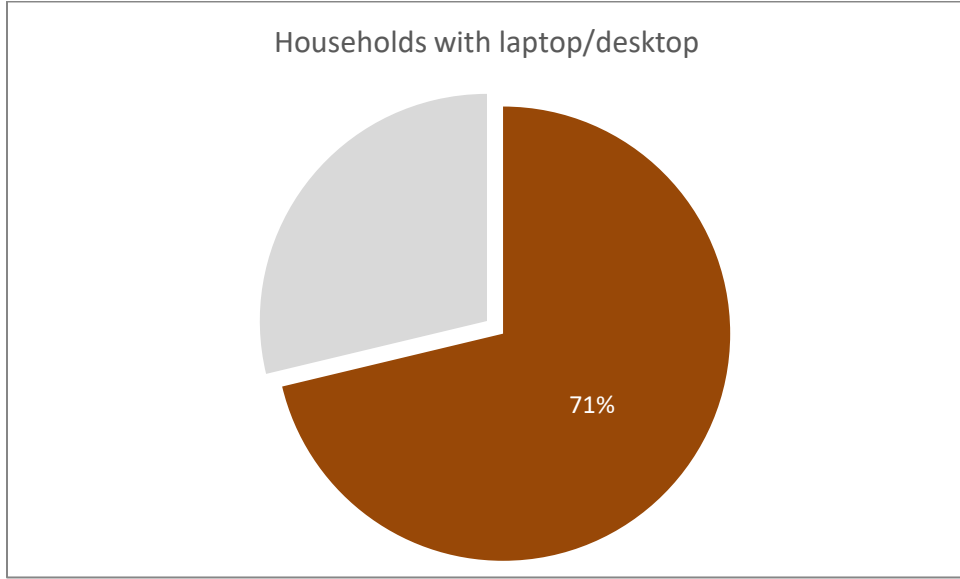
**Figure 68: Broadband affordability – Lincoln County**

Portion of eligible households enrolled in ACP

12%
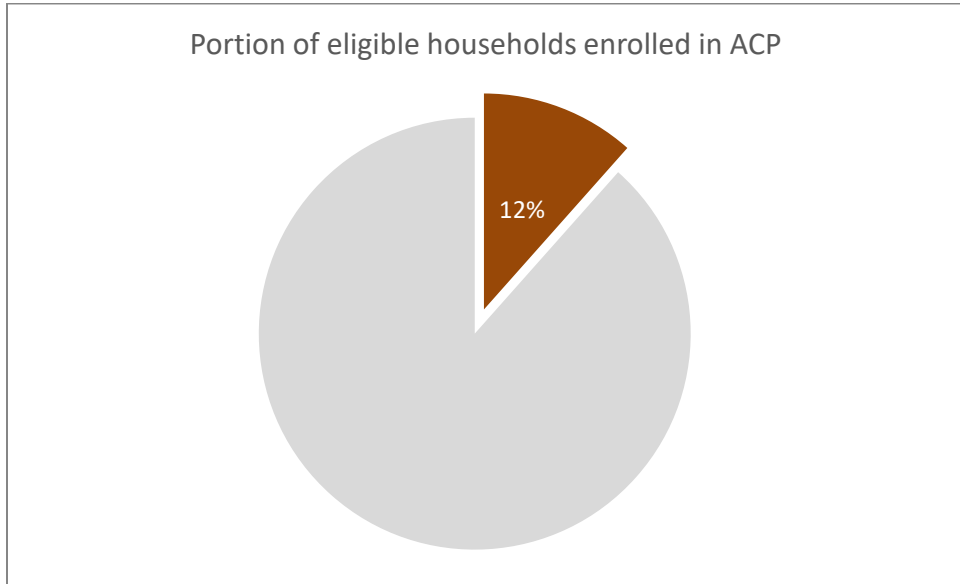
## Los Alamos County

**Figure 69: Broadband service availability – Los Alamos County**
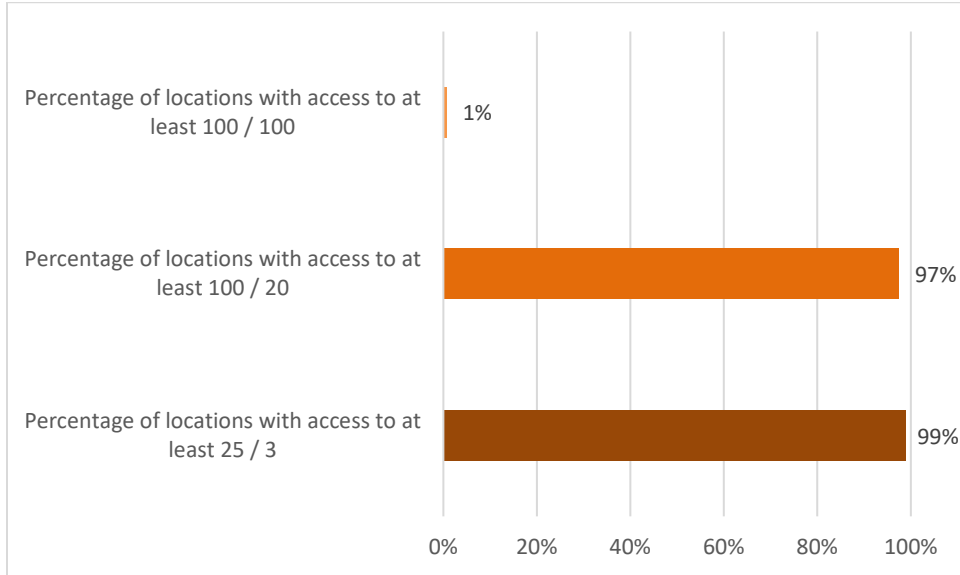


**Figure 70: Broadband adoption – Los Alamos County**
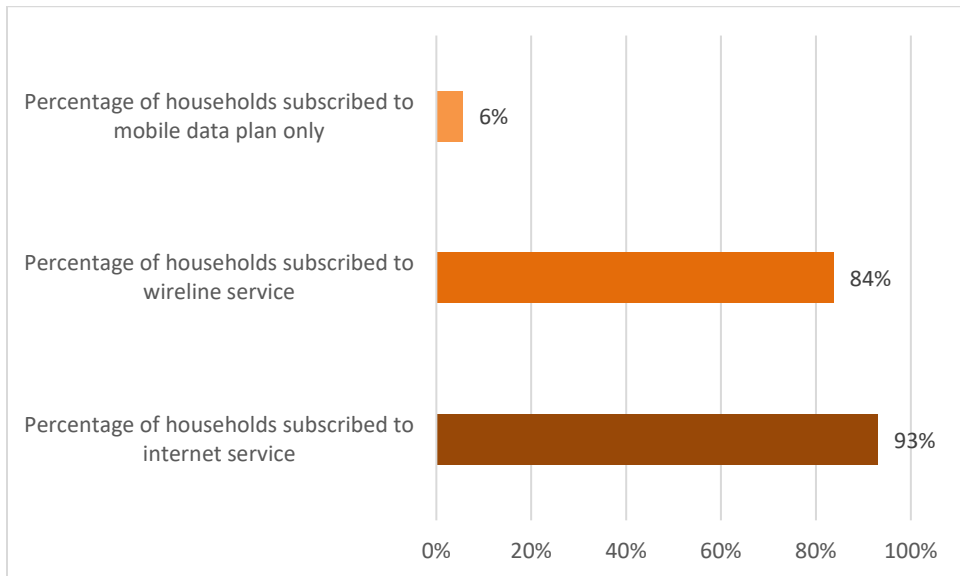
**Figure 71: Device ownership – Los Alamos County**

Households with laptop/desktop

90%
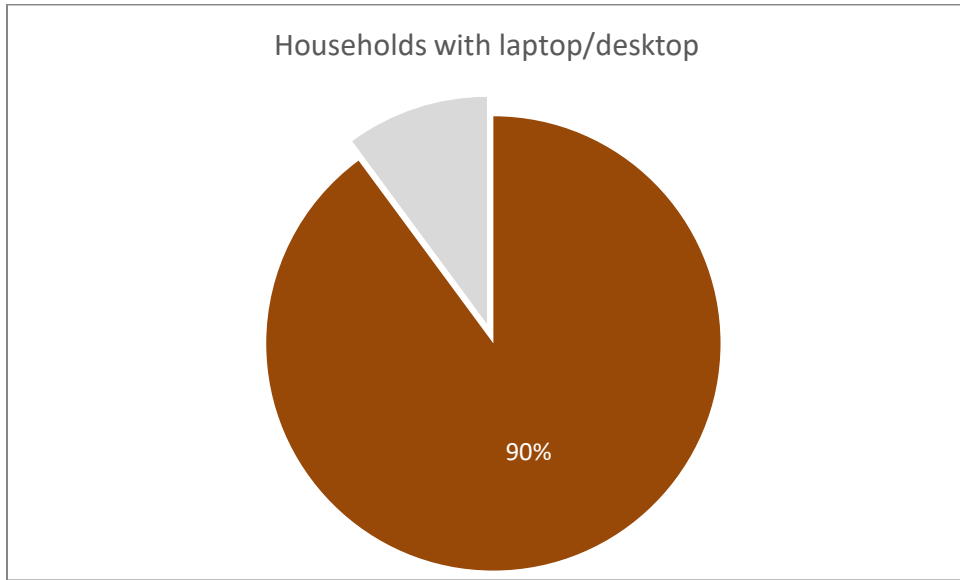
**Figure 72: Broadband affordability – Los Alamos County**

Portion of eligible households enrolled in ACP

4%
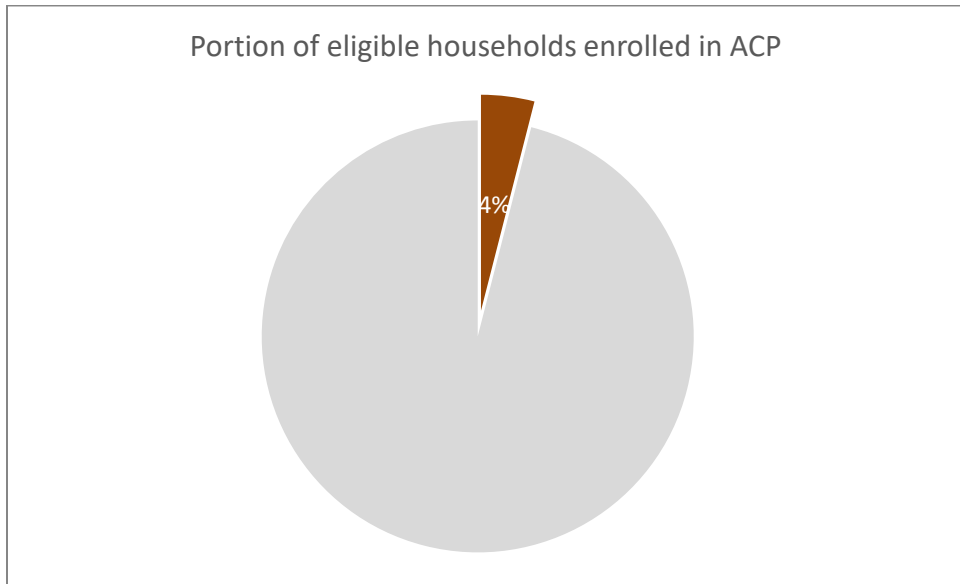
## Luna County

**Figure 73: Broadband service availability – Luna County**
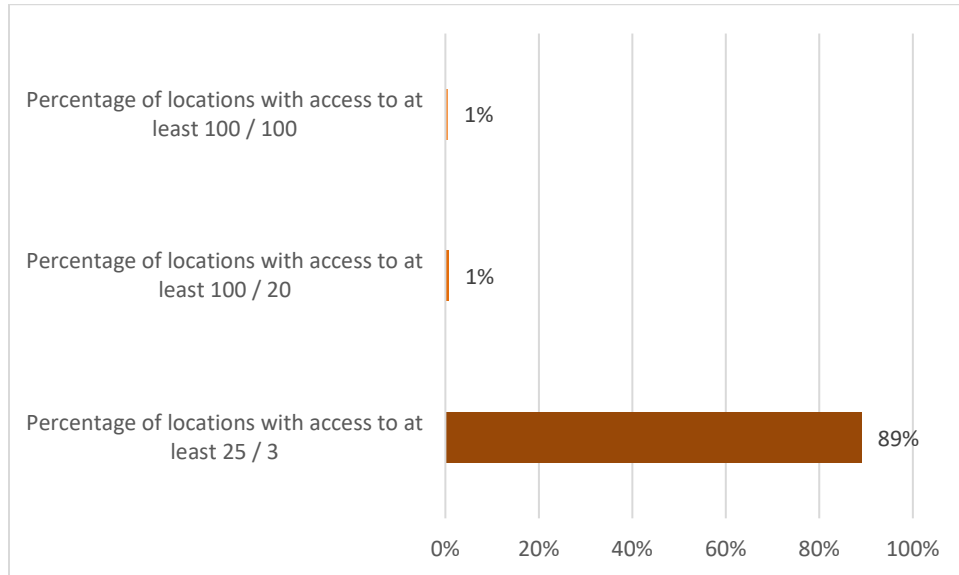


**Figure 74: Broadband adoption – Luna County**
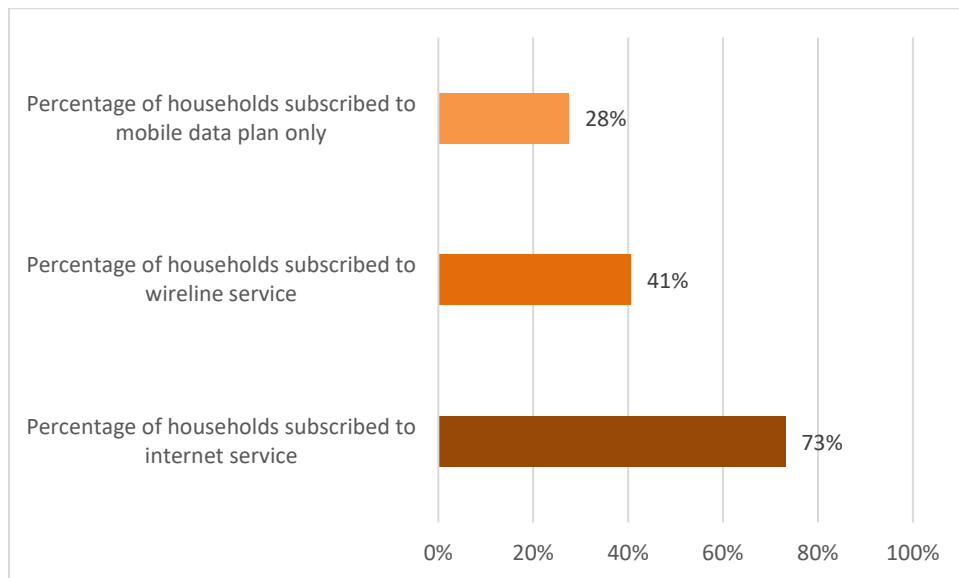
**Figure 75: Device ownership – Luna County**

Households with laptop/desktop

50%
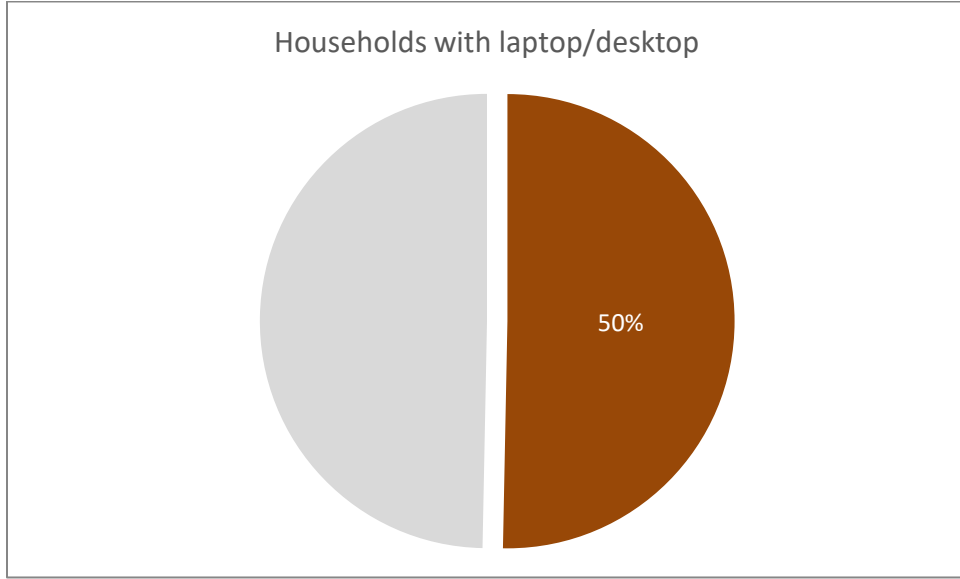
**Figure 76: Broadband affordability – Luna County**

Portion of eligible households enrolled in ACP

72%
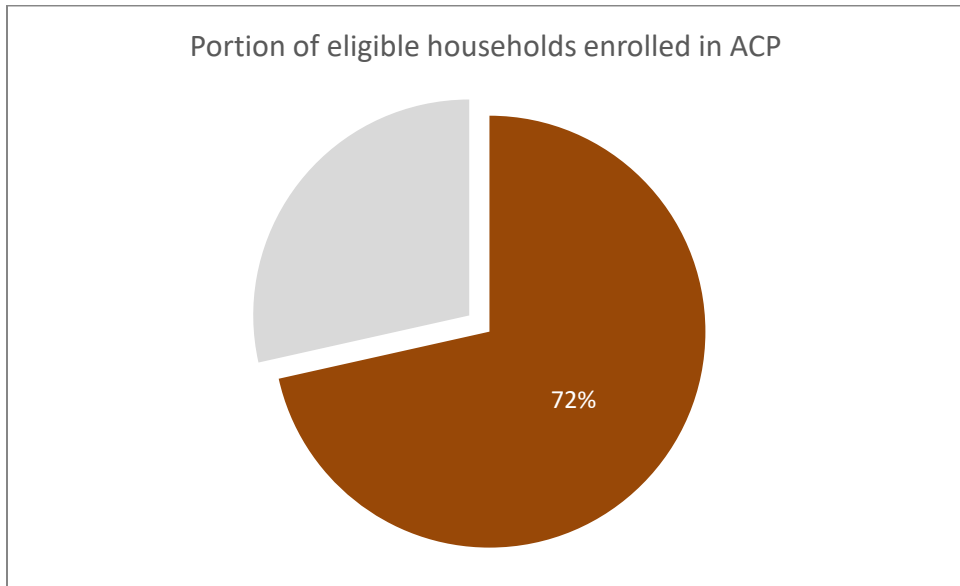
## McKinley County

**Figure 77: Broadband service availability – McKinley County**
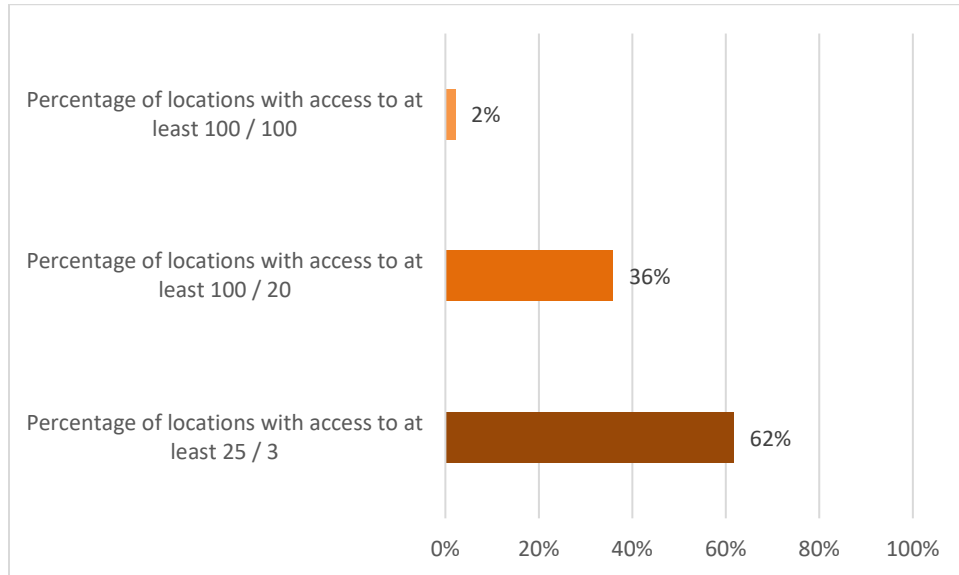


**Figure 78: Broadband adoption – McKinley County**
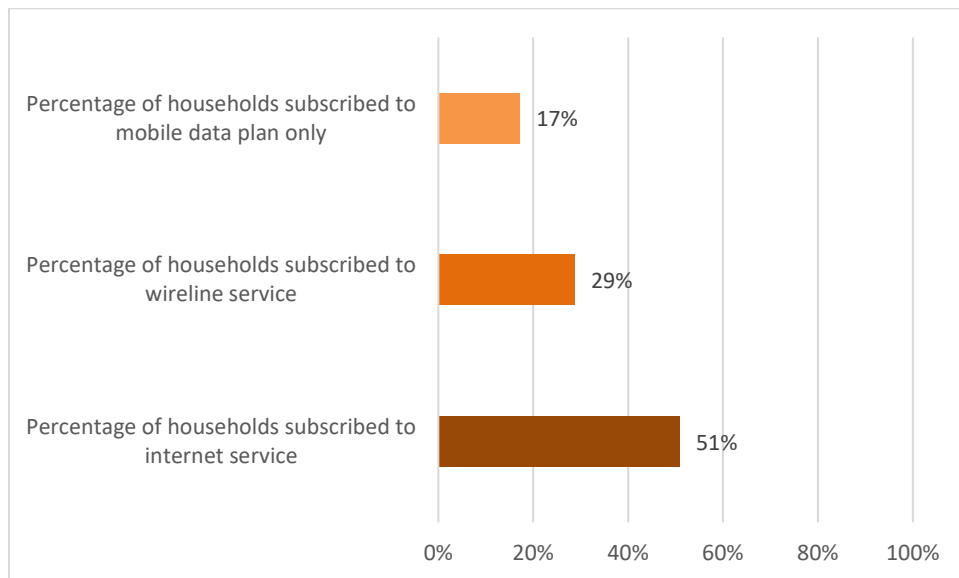
**Figure 79: Device ownership – McKinley County**

Households with laptop/desktop



48%
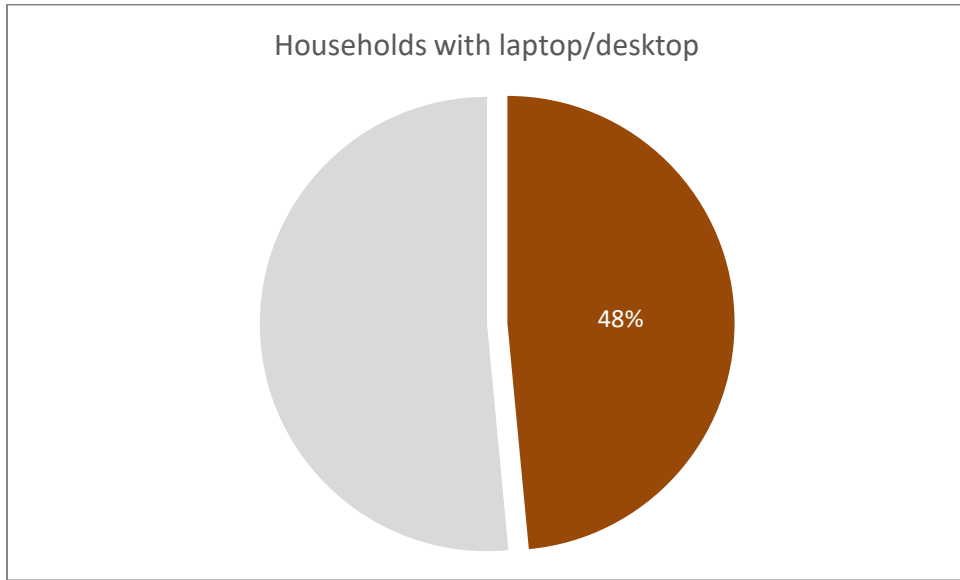
**Figure 80: Broadband affordability – McKinley County**

Portion of eligible households enrolled in ACP



88%
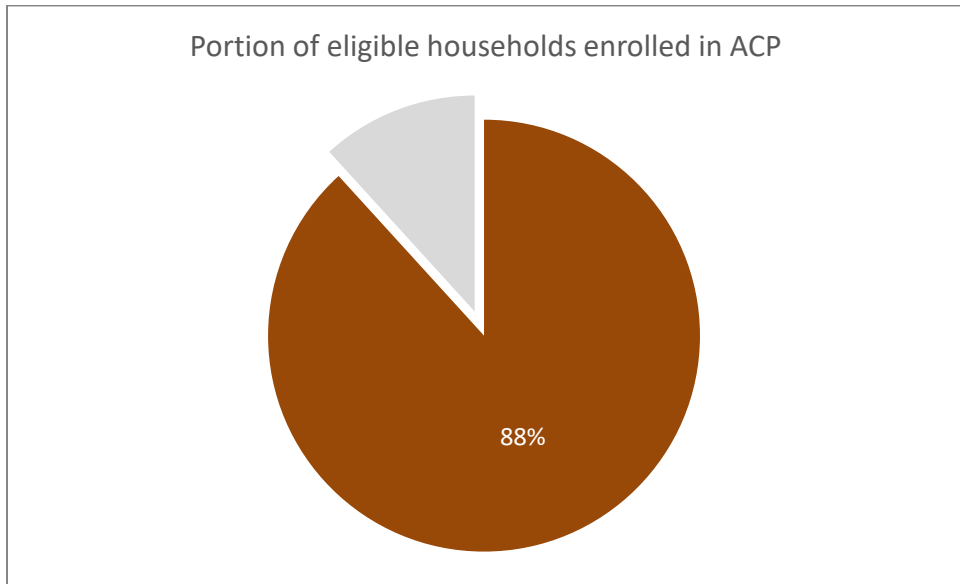
## Mora County

**Figure 81: Broadband service availability – Mora County**
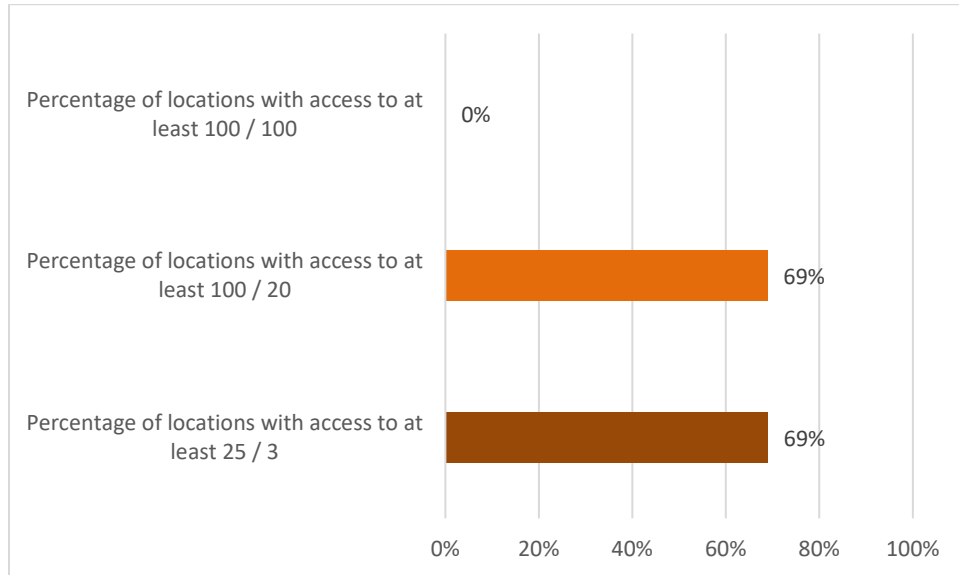


**Figure 82: Broadband adoption – Mora County**
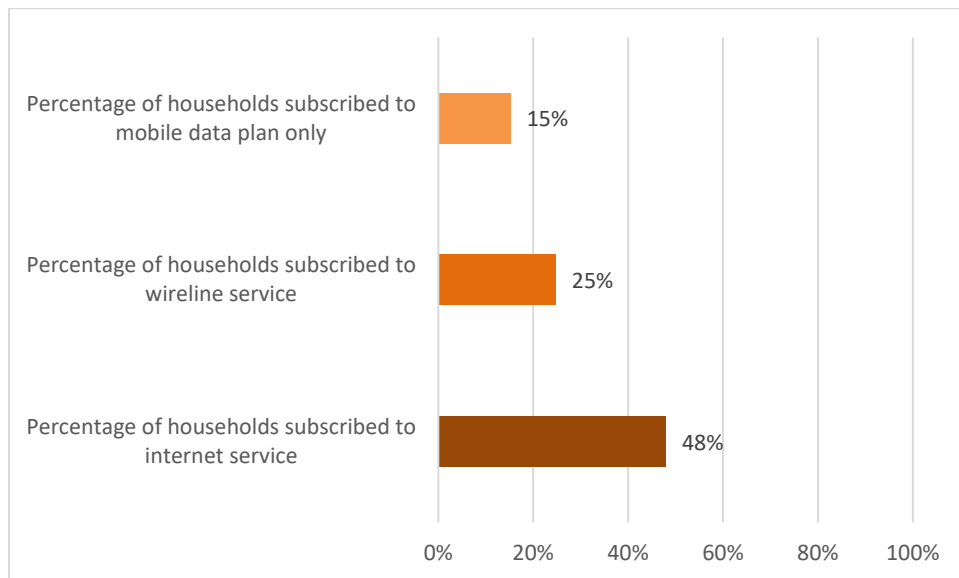
**Figure 83: Device ownership – Mora County**



Households with laptop/desktop

43%
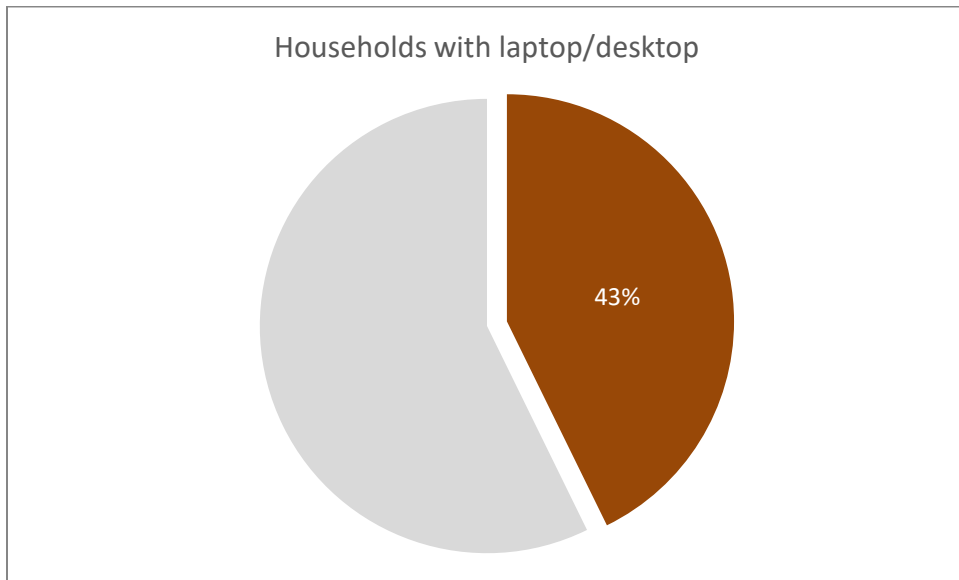
**Figure 84: Broadband affordability – Mora County**



Portion of eligible households enrolled in ACP

28%
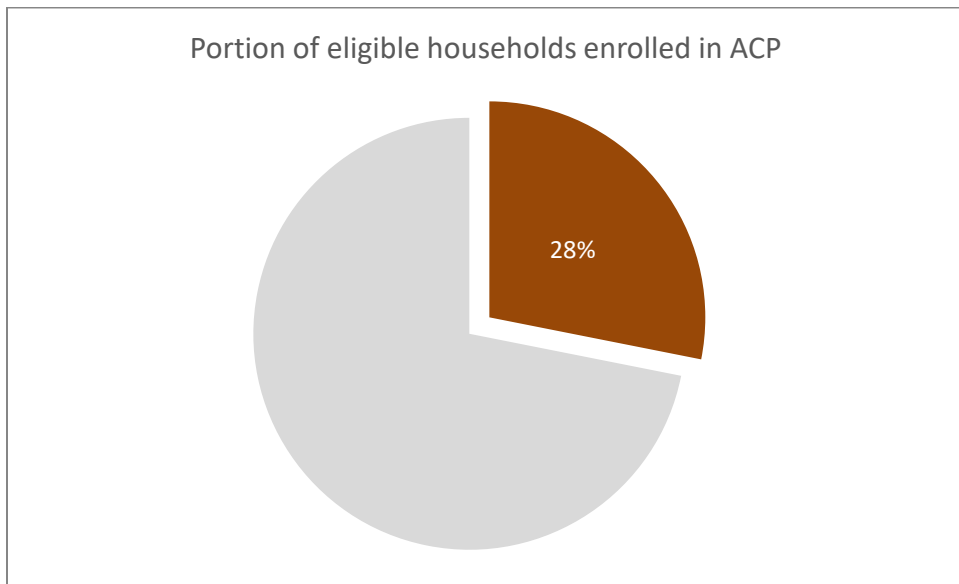
## Otero County

**Figure 85: Broadband service availability – Otero County**
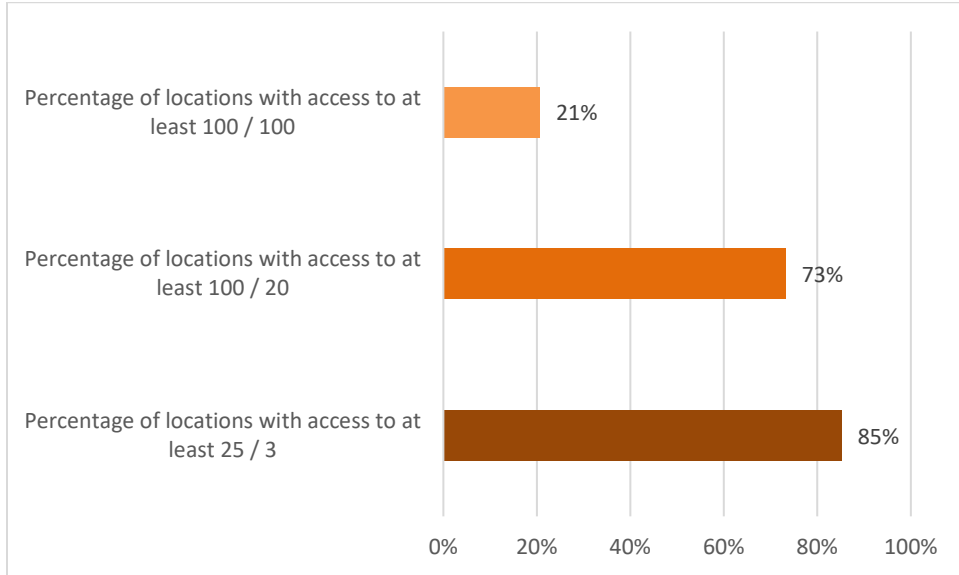


**Figure 86: Broadband adoption – Otero County**
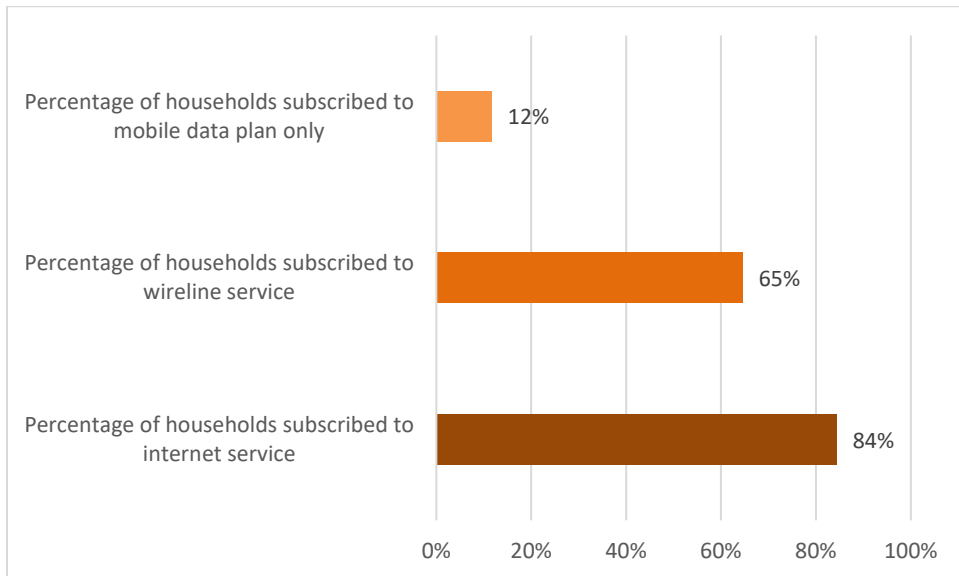
**Figure 87: Device ownership – Otero County**

Households with laptop/desktop

61%
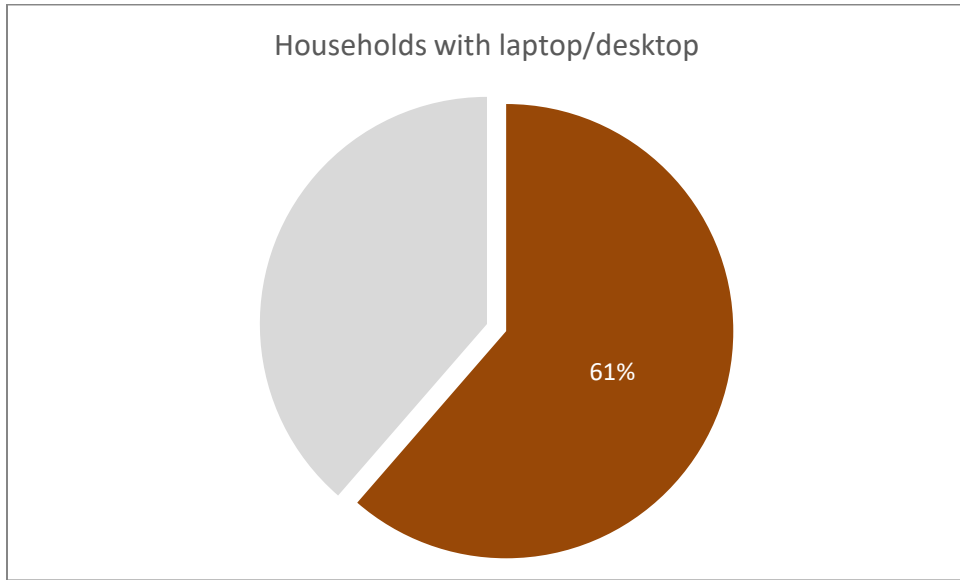
**Figure 88: Broadband affordability – Otero County**

Portion of eligible households enrolled in ACP

38%
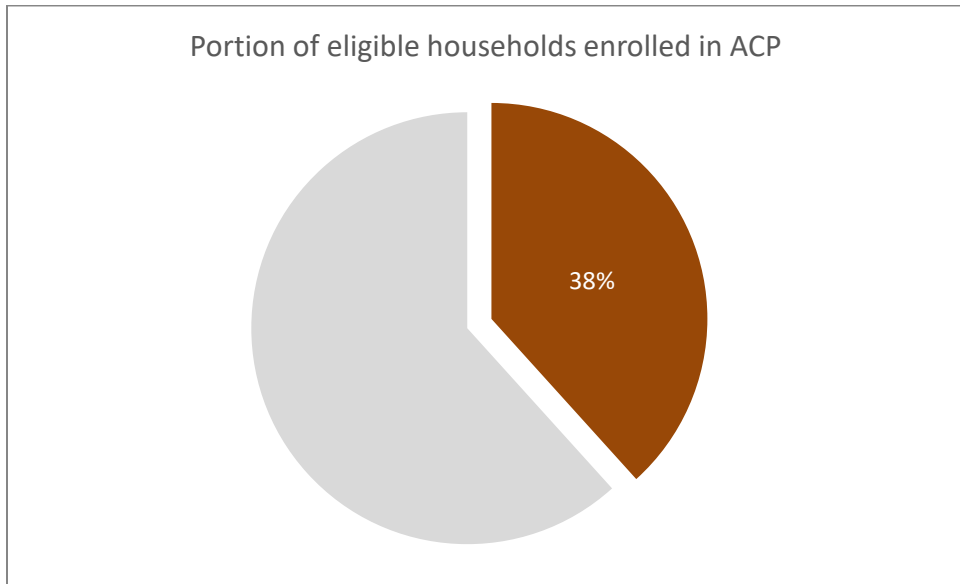
# Quay County

**Figure 89: Broadband service availability – Quay County**

| Category | Percentage |
|---|---|
| Percentage of locations with access to at least 100 / 100 | 83% |
| Percentage of locations with access to at least 100 / 20 | 85% |
| Percentage of locations with access to at least 25 / 3 | 87% |
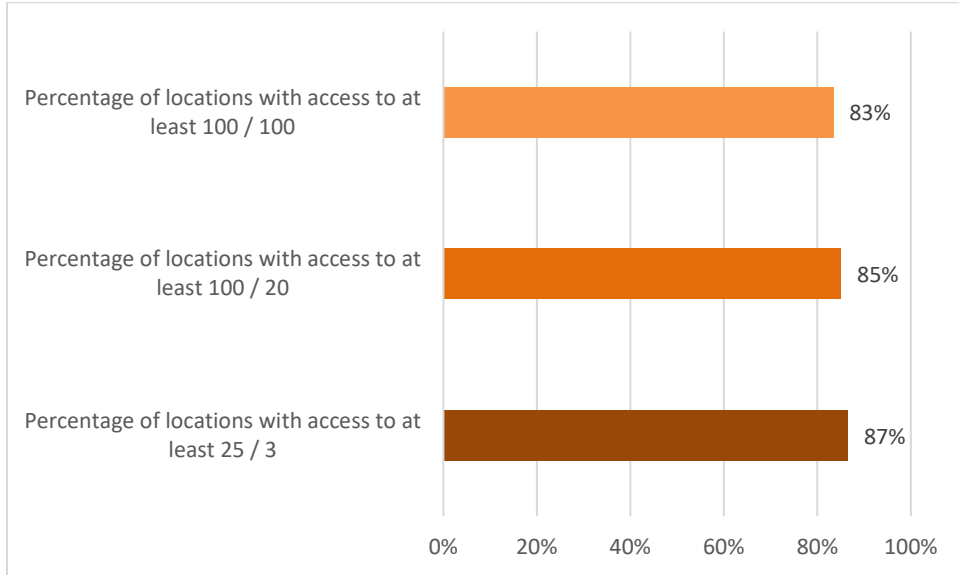
**Figure 90: Broadband adoption – Quay County**

| Category | Percentage |
|---|---|
| Percentage of households subscribed to mobile data plan only | 7% |
| Percentage of households subscribed to wireline service | 46% |
| Percentage of households subscribed to internet service | 62% |
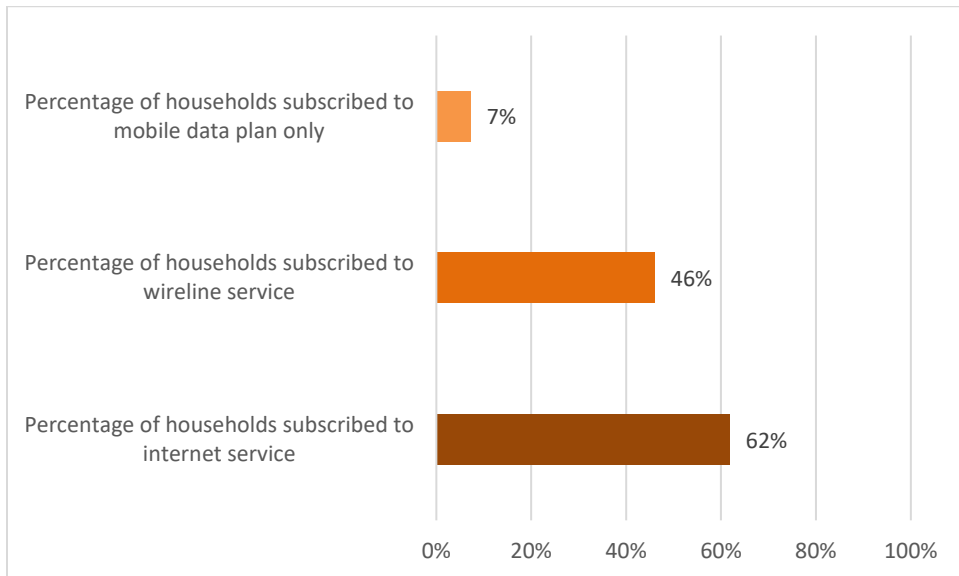
**Figure 91: Device ownership – Quay County**

Households with laptop/desktop



64%
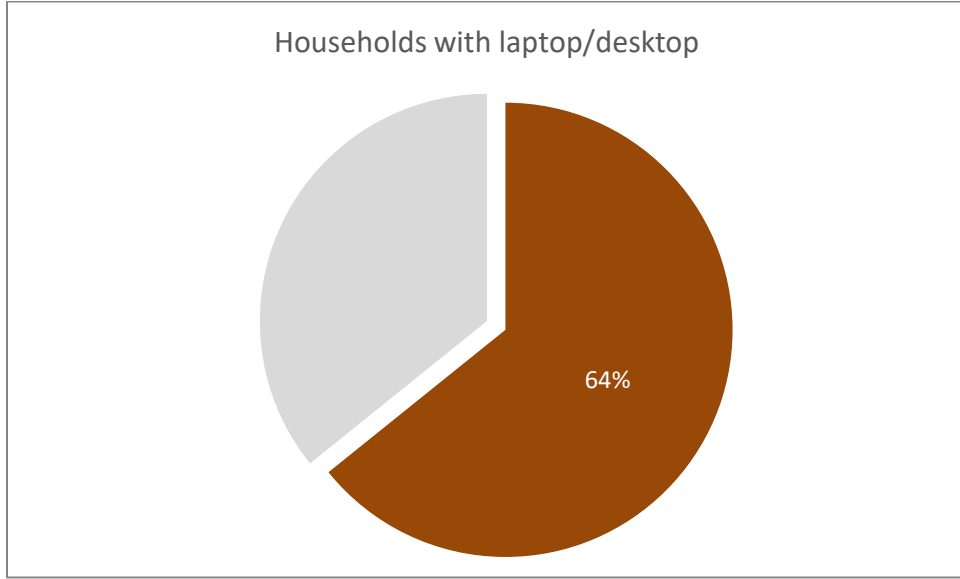
**Figure 92: Broadband affordability – Quay County**

Portion of eligible households enrolled in ACP



29%
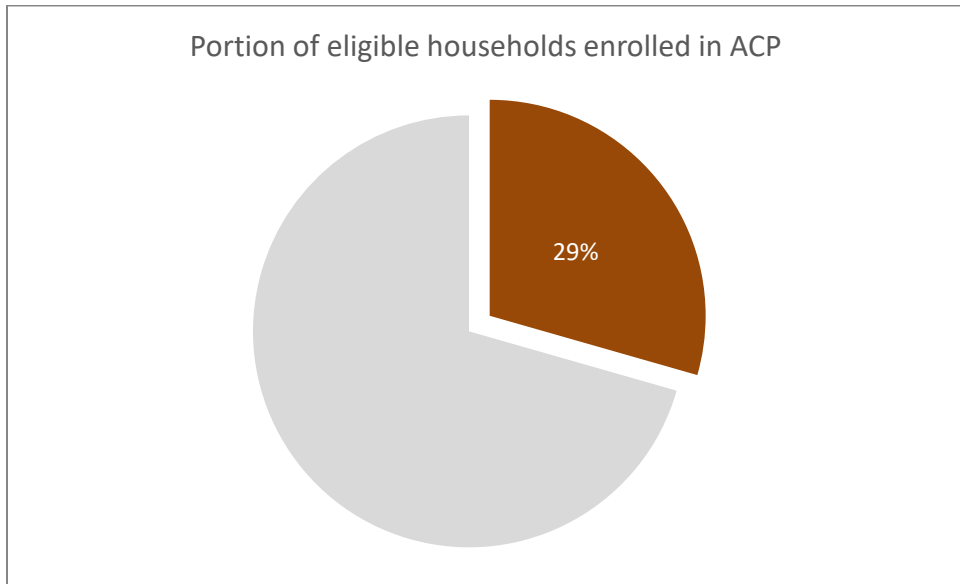
## Rio Arriba County

**Figure 93: Broadband service availability – Rio Arriba County**
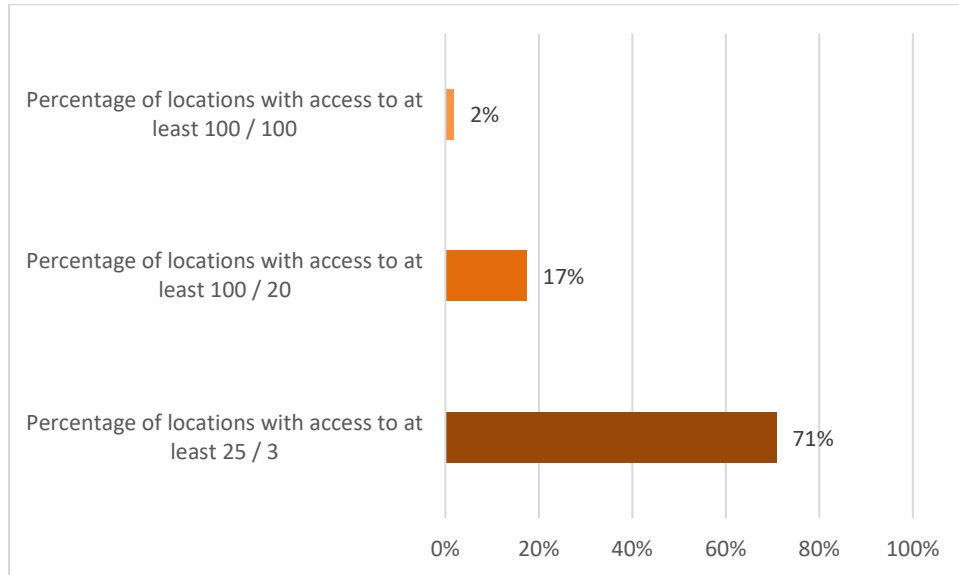


**Figure 94: Broadband adoption – Rio Arriba County**
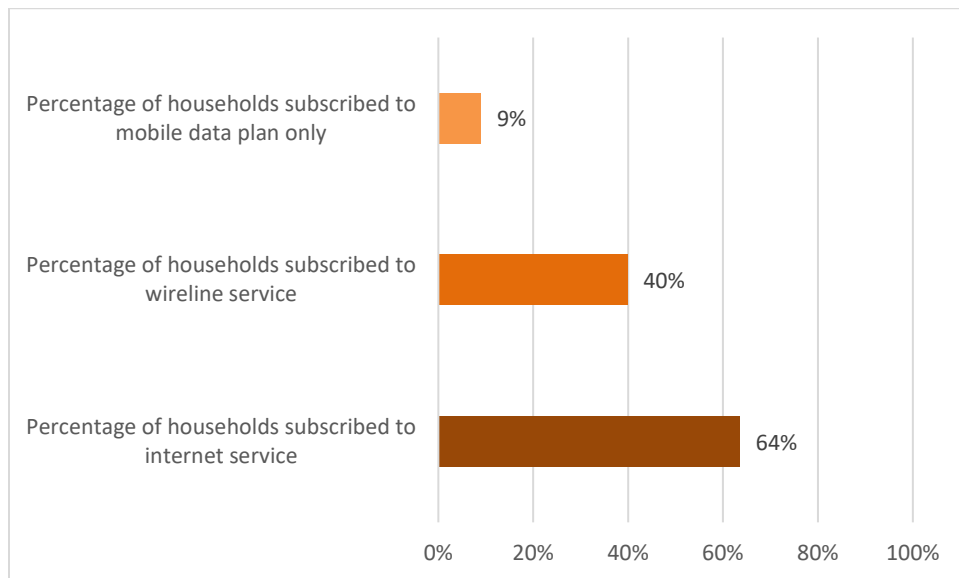
**Figure 95: Device ownership – Rio Arriba County**

Households with laptop/desktop

57%
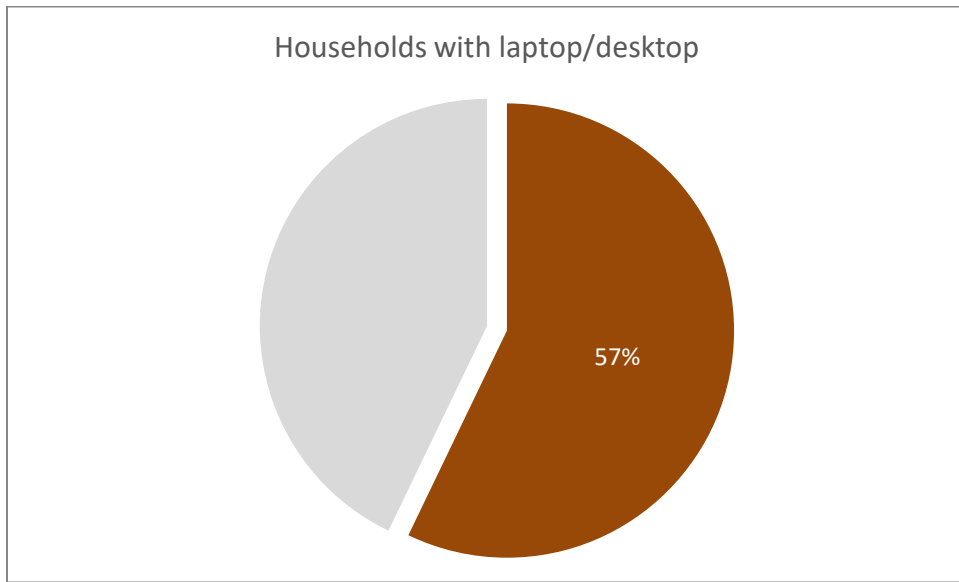
**Figure 96: Broadband affordability – Rio Arriba County**

Portion of eligible households enrolled in ACP

31%
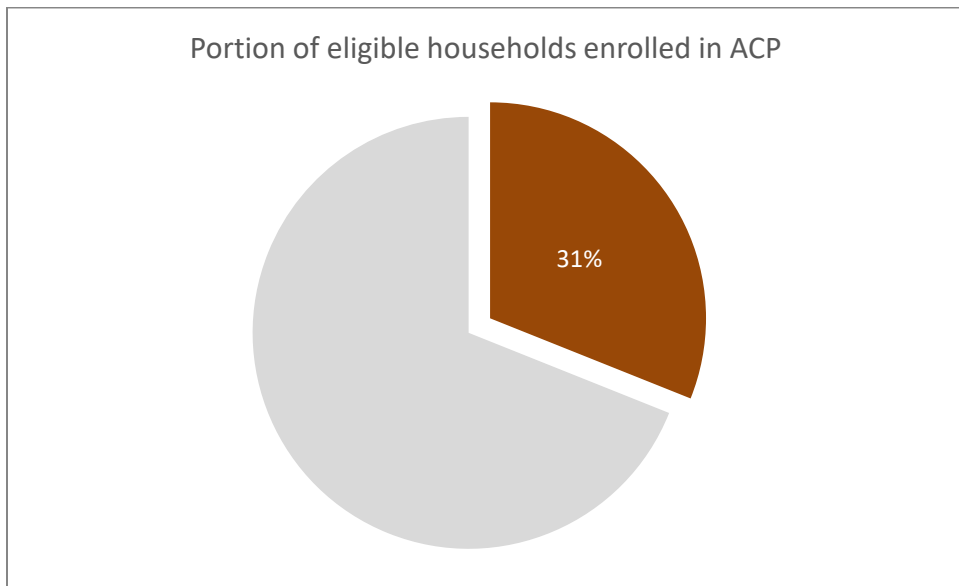
## Roosevelt County

**Figure 97: Broadband service availability – Roosevelt County**

Percentage of locations with access to at least 100 / 100: 81%

Percentage of locations with access to at least 100 / 20: 81%

Percentage of locations with access to at least 25 / 3: 85%
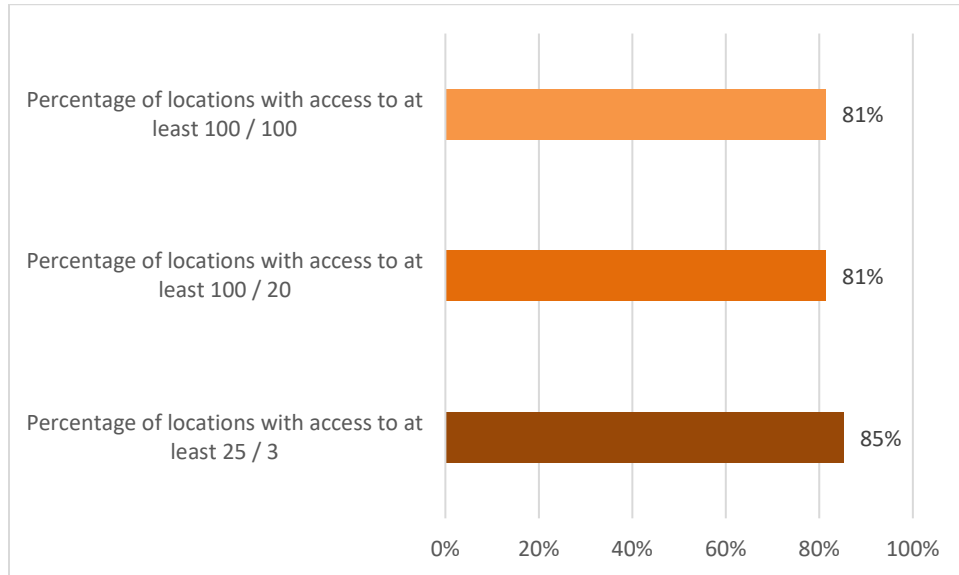
**Figure 98: Broadband adoption – Roosevelt County**

Percentage of households subscribed to mobile data plan only: 13%

Percentage of households subscribed to wireline service: 62%

Percentage of households subscribed to internet service: 81%
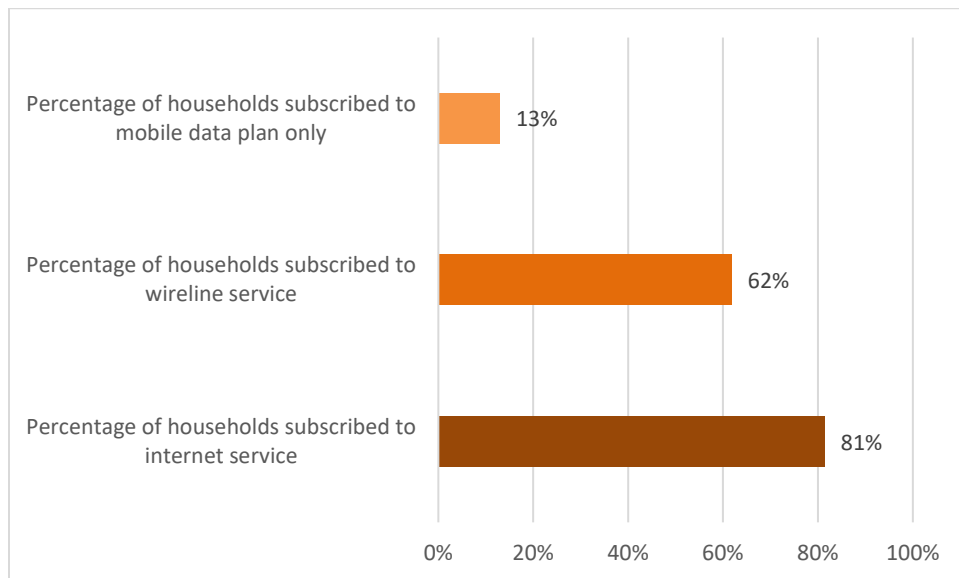
**Figure 99: Device ownership – Roosevelt County**

Households with laptop/desktop

73%
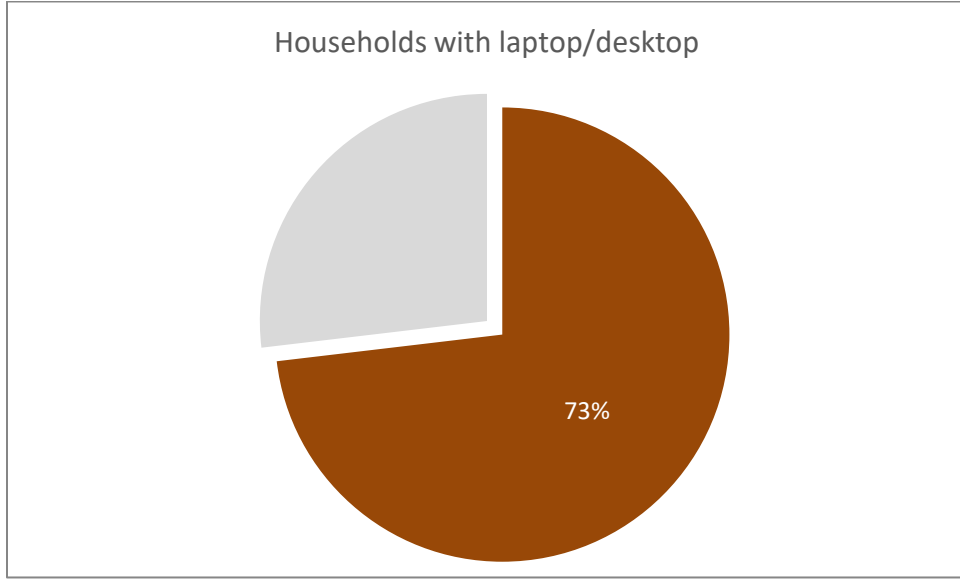
**Figure 100: Broadband affordability – Roosevelt County**

Portion of eligible households enrolled in ACP

32%
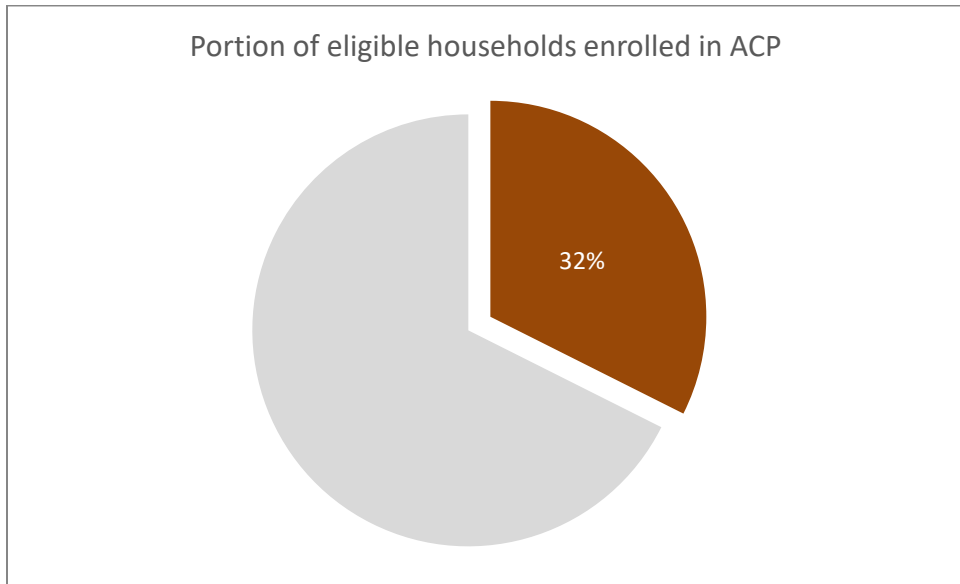
## San Juan County

**Figure 101: Broadband service availability – San Juan County**
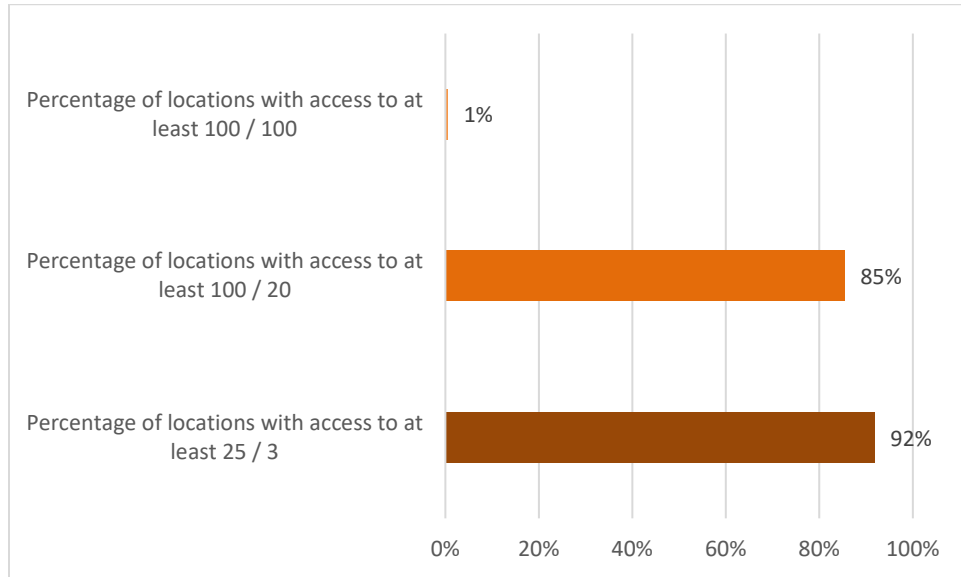


**Figure 102: Broadband adoption – San Juan County**
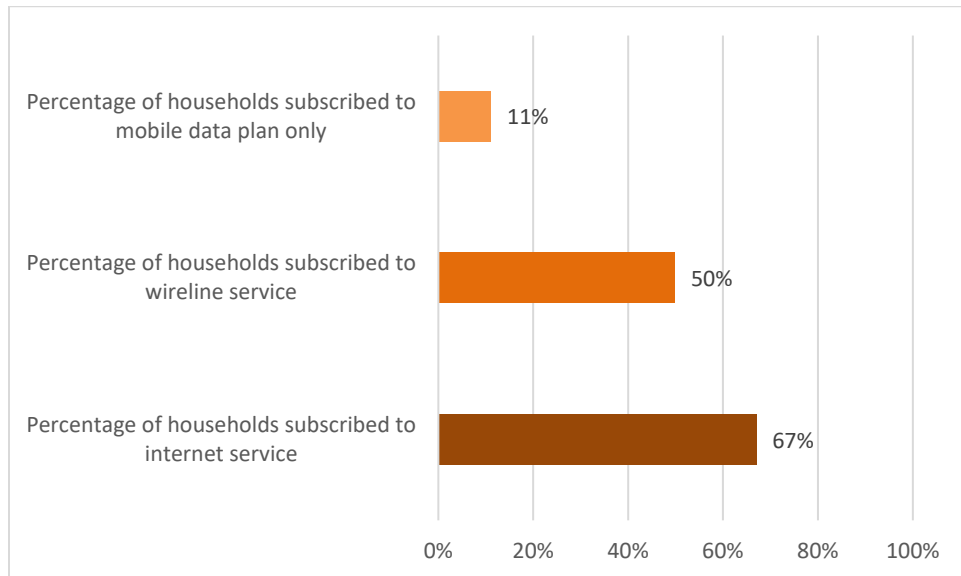
**Figure 103: Device ownership – San Juan County**

Households with laptop/desktop

64%
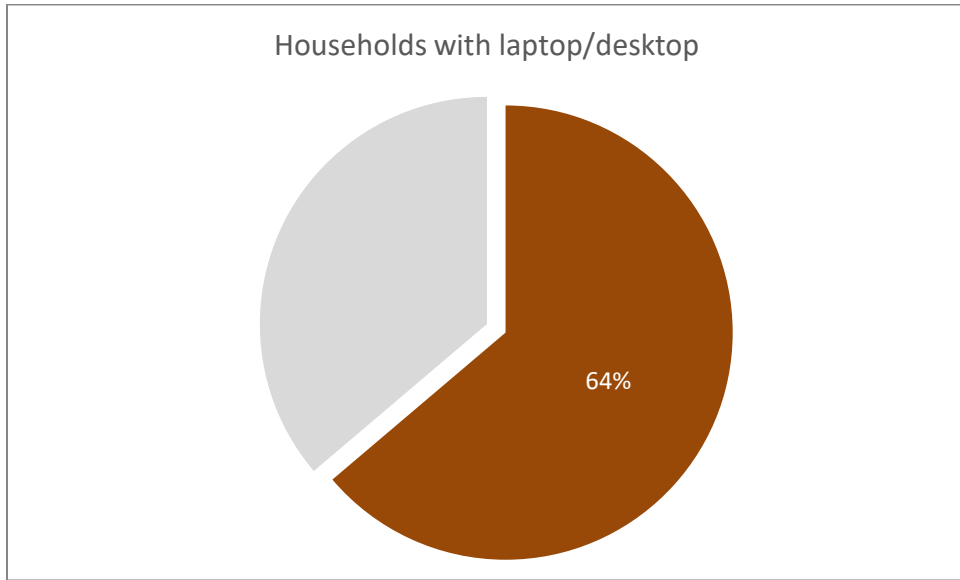
**Figure 104: Broadband affordability – San Juan County**

Portion of eligible households enrolled in ACP

51%
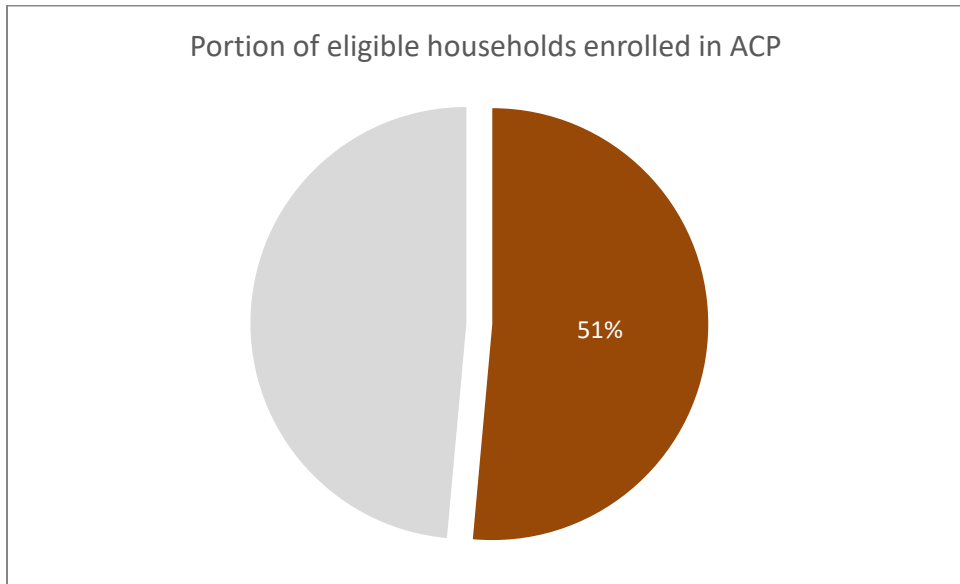
## San Miguel County

**Figure 105: Broadband service availability – San Miguel County**
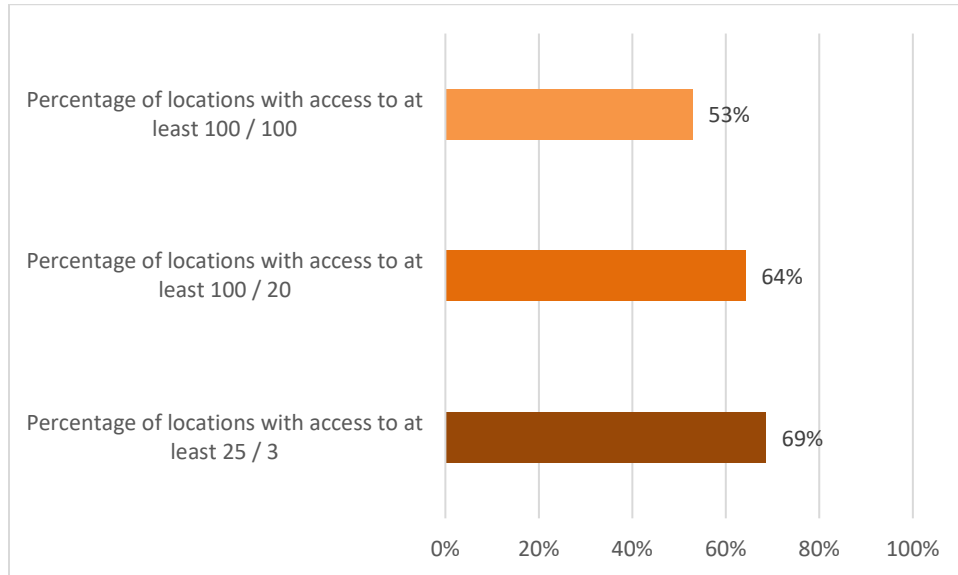


**Figure 106: Broadband adoption – San Miguel County**
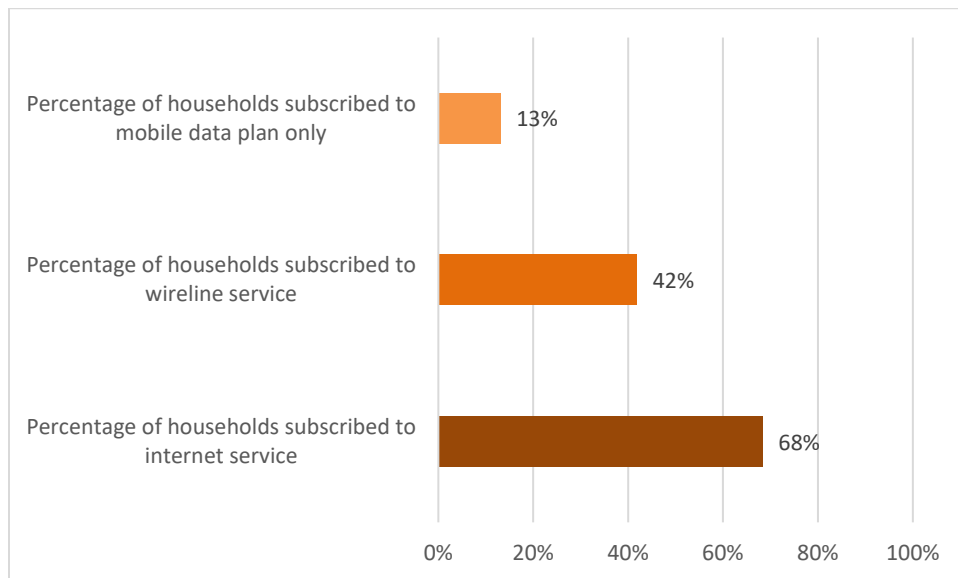
**Figure 107: Device ownership – San Miguel County**

Households with laptop/desktop

61%
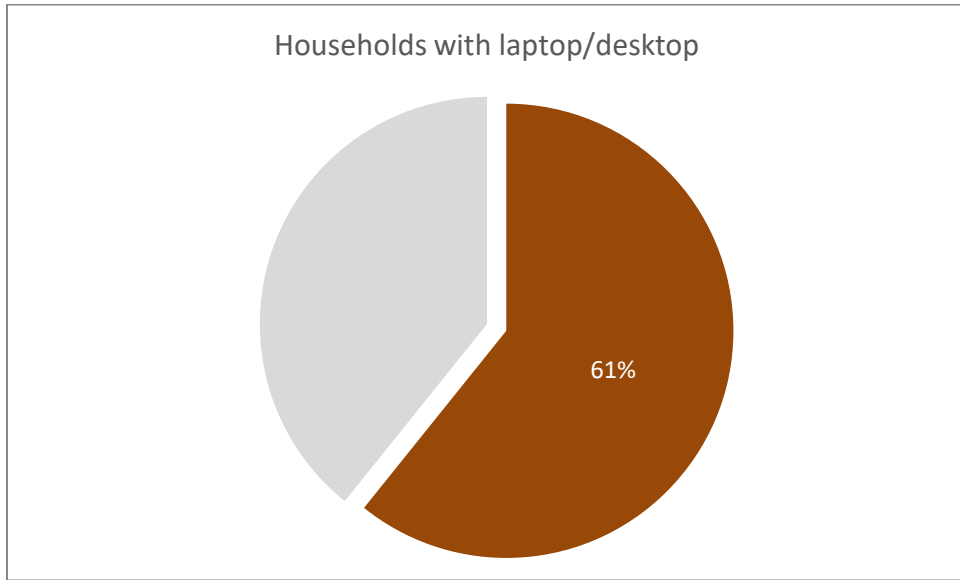
**Figure 108: Broadband affordability – San Miguel County**

Portion of eligible households enrolled in ACP

40%
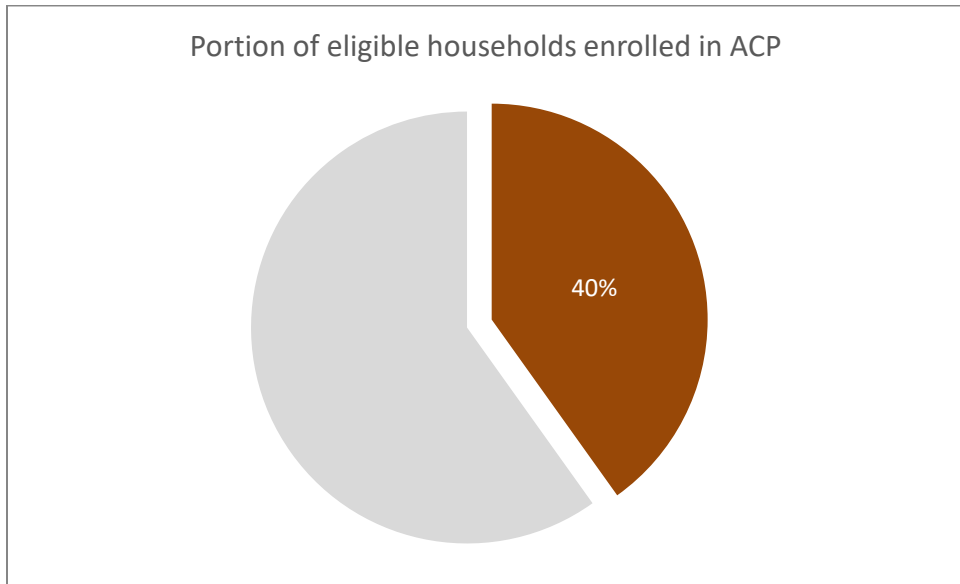
## Sandoval County

**Figure 109: Broadband service availability – Sandoval County**



- Percentage of locations with access to at least 100 / 100: 1%
- Percentage of locations with access to at least 100 / 20: 84%
- Percentage of locations with access to at least 25 / 3: 89%
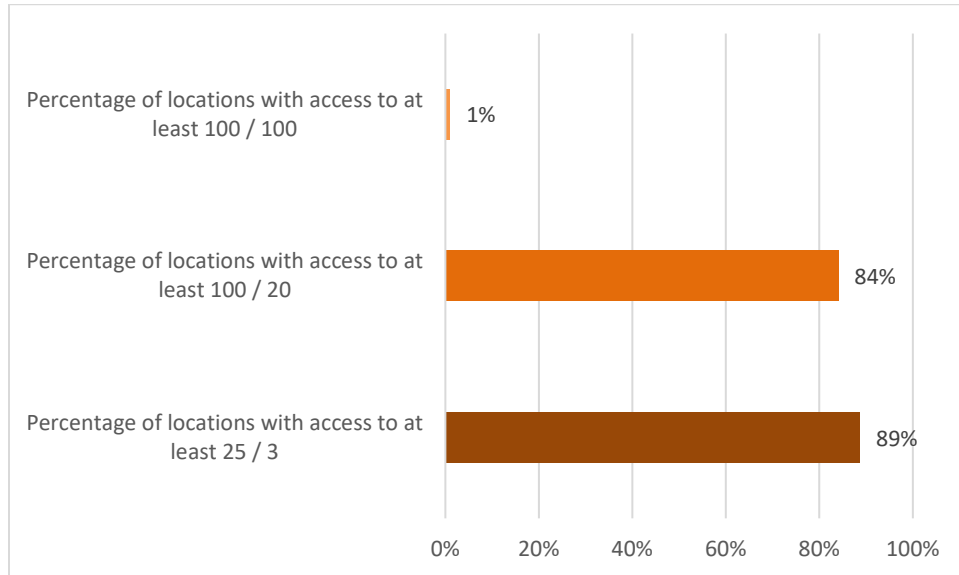
**Figure 110: Broadband adoption – Sandoval County**



- Percentage of households subscribed to mobile data plan only: 14%
- Percentage of households subscribed to wireline service: 68%
- Percentage of households subscribed to internet service: 88%
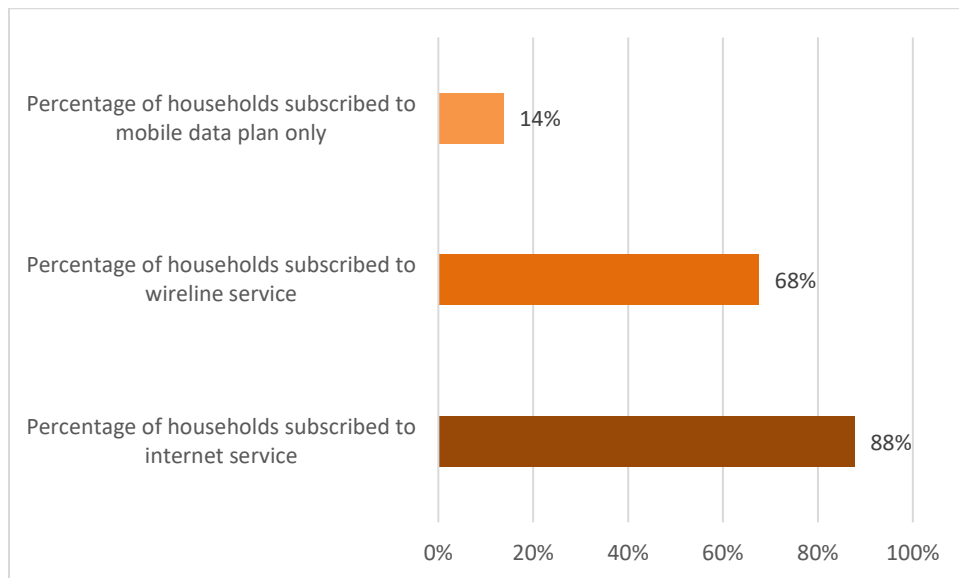
**Figure 111: Device ownership – Sandoval County**

Households with laptop/desktop

82%
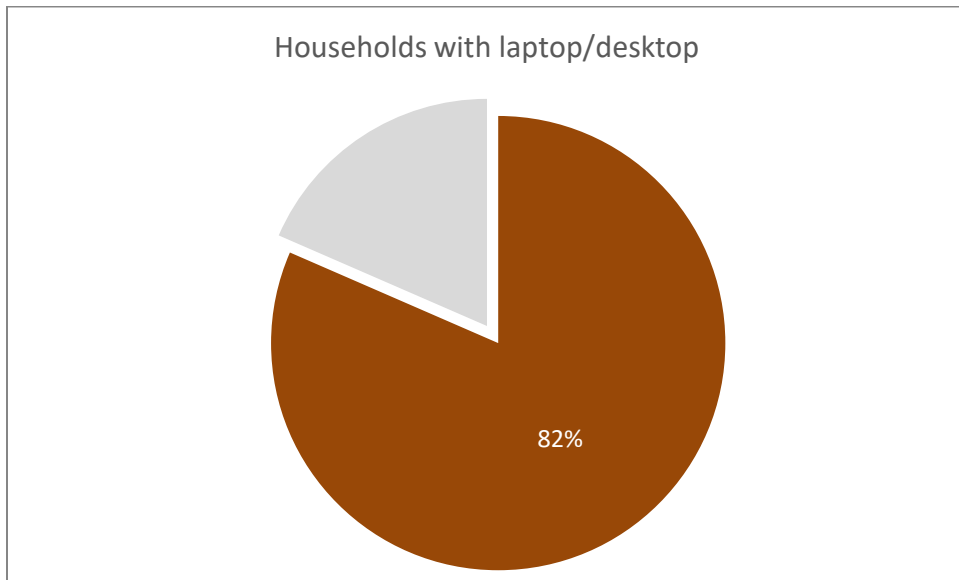
**Figure 112: Broadband affordability – Sandoval County**

Portion of eligible households enrolled in ACP

25%
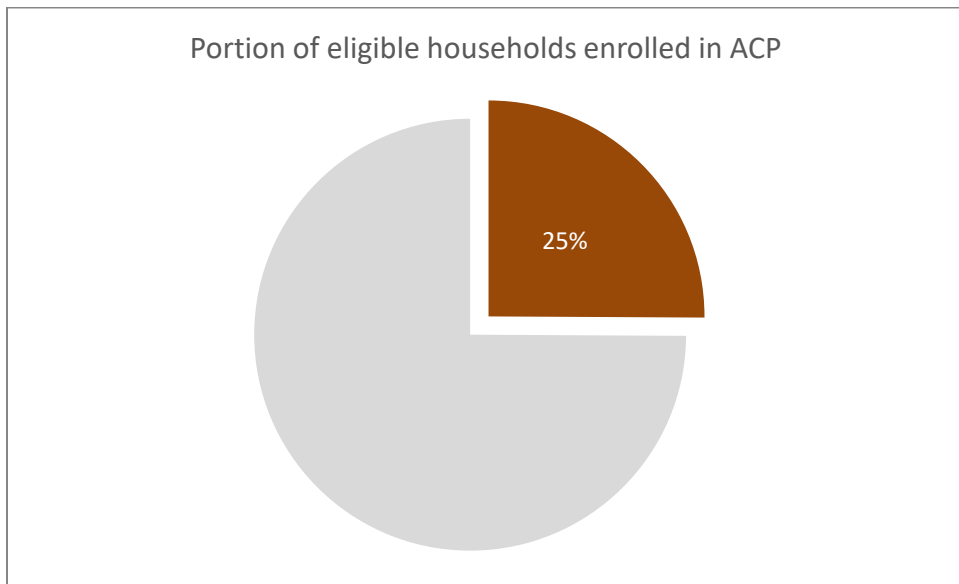
## Santa Fe County

**Figure 113: Broadband service availability – Santa Fe County**



- Percentage of locations with access to at least 100 / 100: 3%
- Percentage of locations with access to at least 100 / 20: 74%
- Percentage of locations with access to at least 25 / 3: 81%
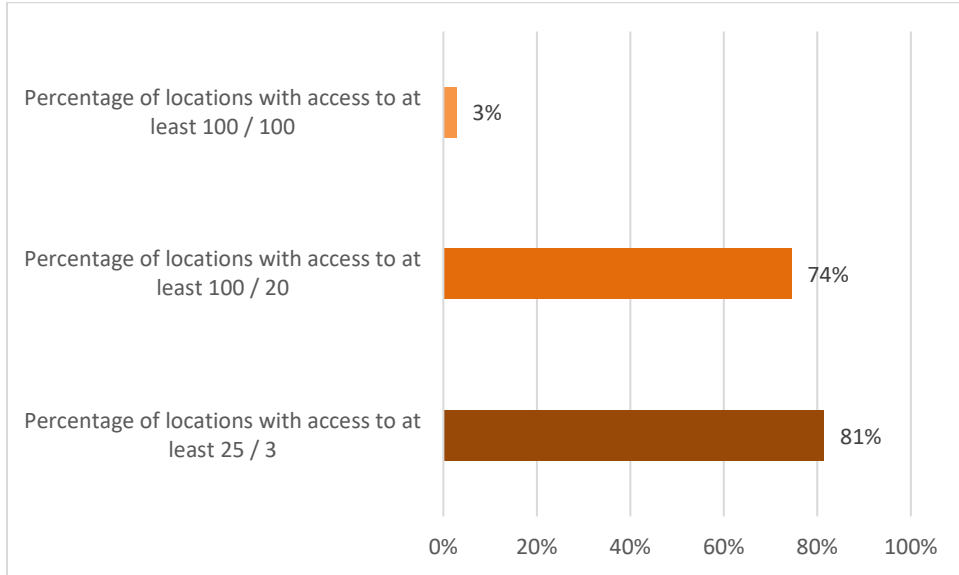
**Figure 114: Broadband adoption – Santa Fe County**



- Percentage of households subscribed to mobile data plan only: 10%
- Percentage of households subscribed to wireline service: 66%
- Percentage of households subscribed to internet service: 84%
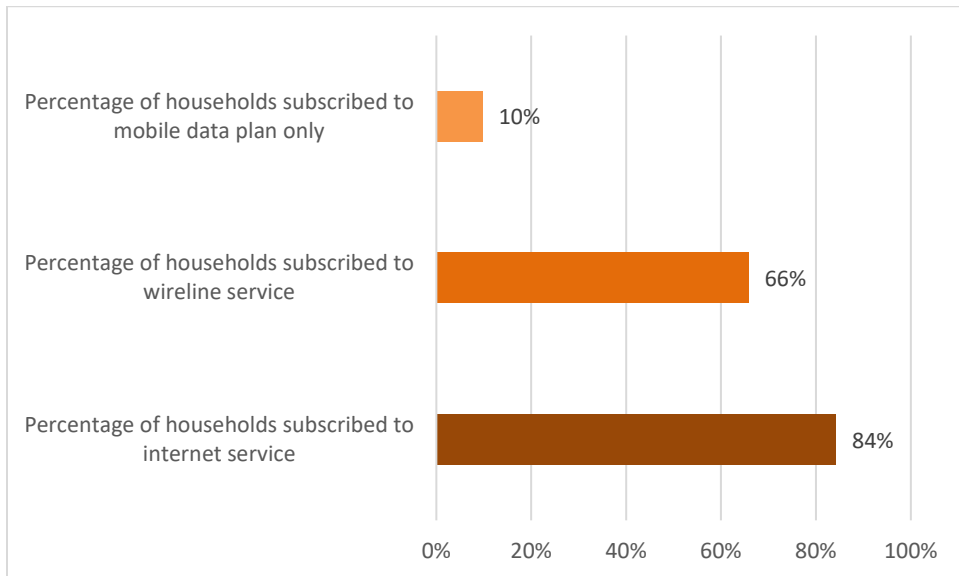
**Figure 115: Device ownership – Santa Fe County**

Households with laptop/desktop

79%
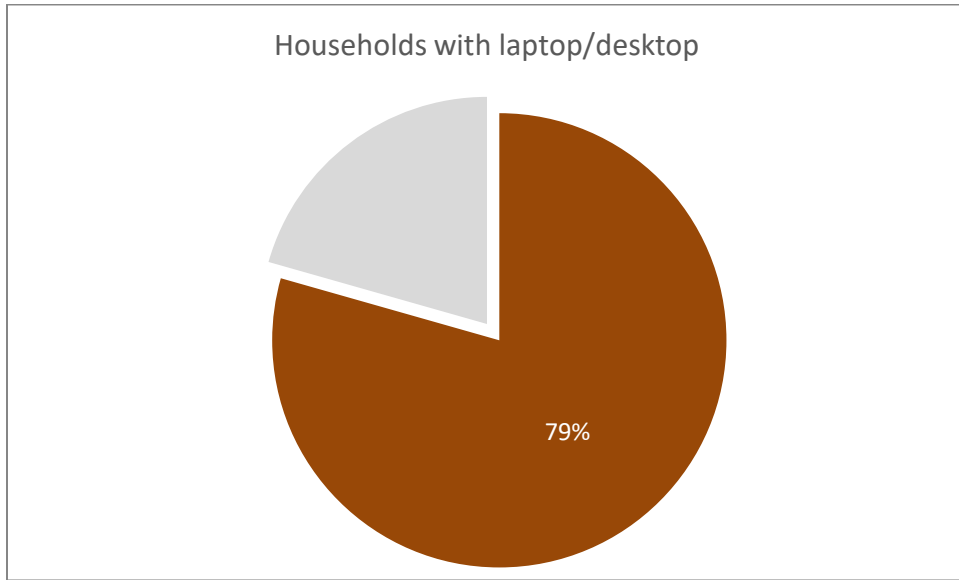
**Figure 116: Broadband affordability – Santa Fe County**

Portion of eligible households enrolled in ACP

23%
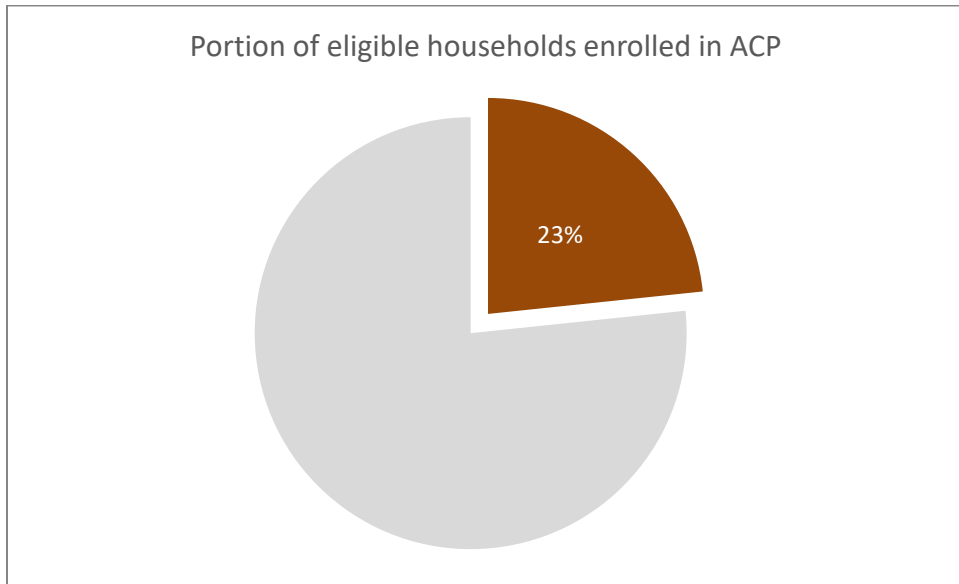
## Sierra County

**Figure 117: Broadband service availability – Sierra County**
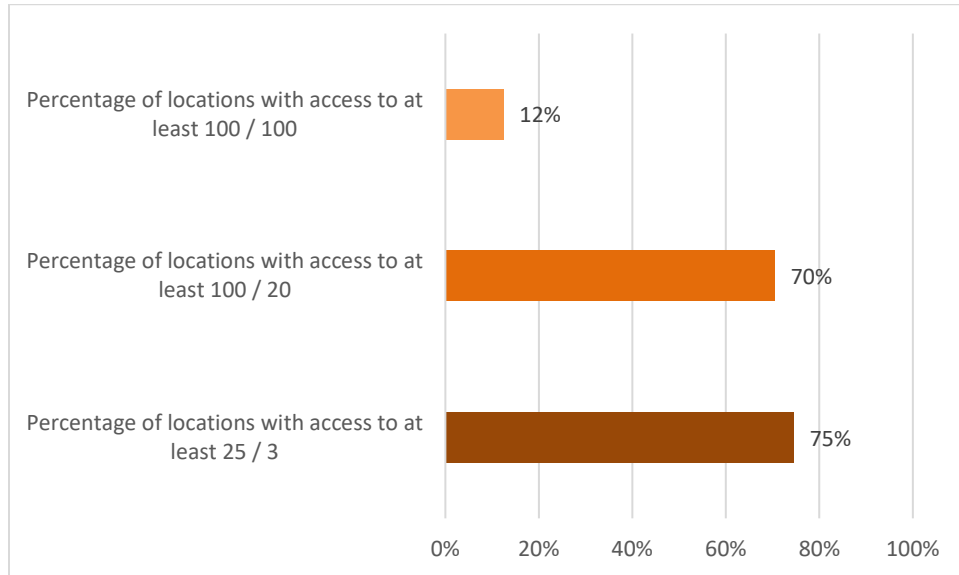


**Figure 118: Broadband adoption – Sierra County**
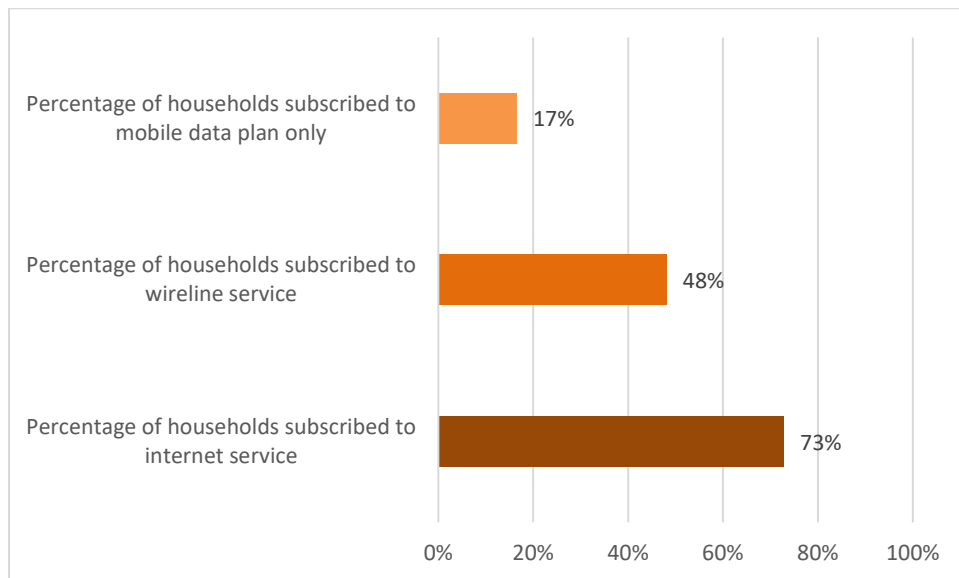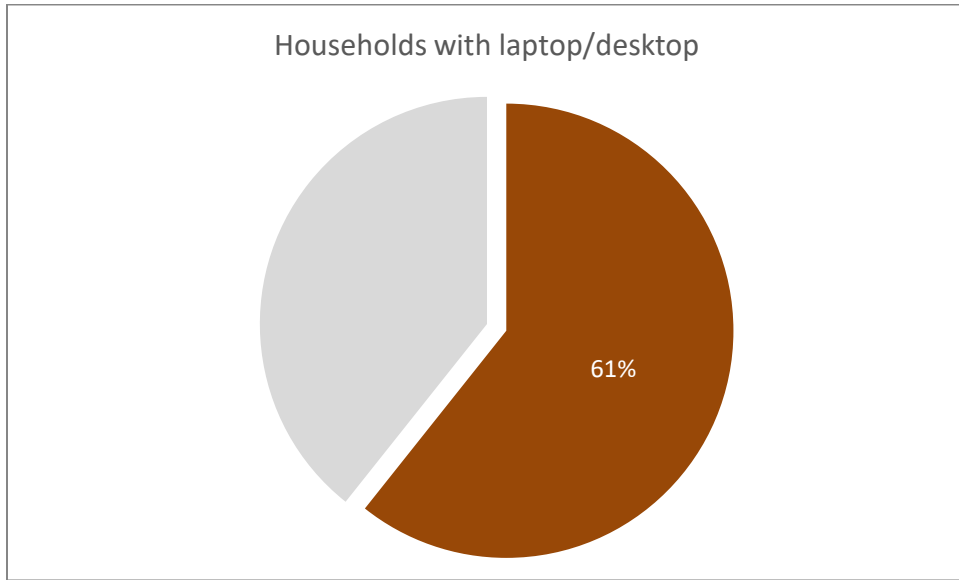
**Figure 119: Device ownership – Sierra County**

Households with laptop/desktop



63%
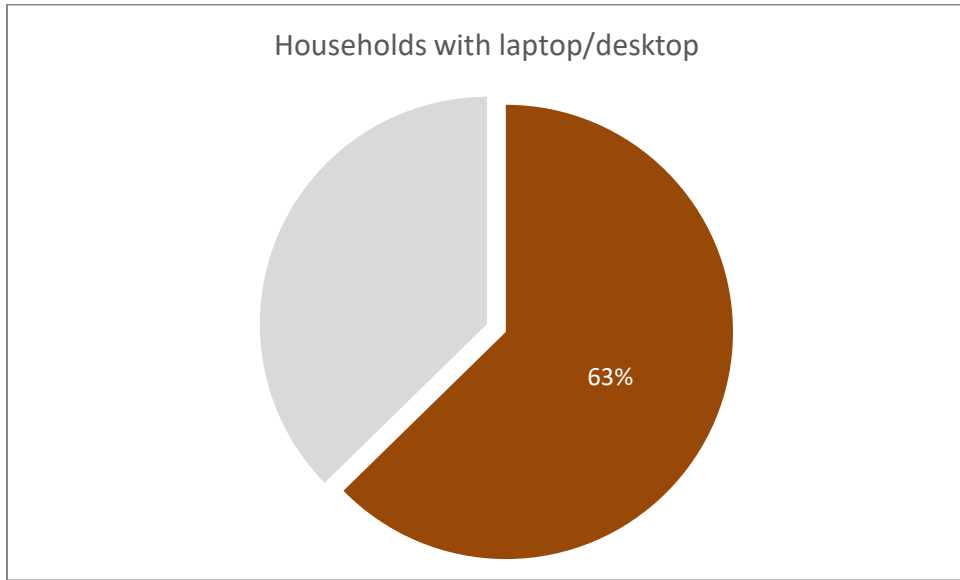
**Figure 120: Broadband affordability – Sierra County**

Portion of eligible households enrolled in ACP



32%
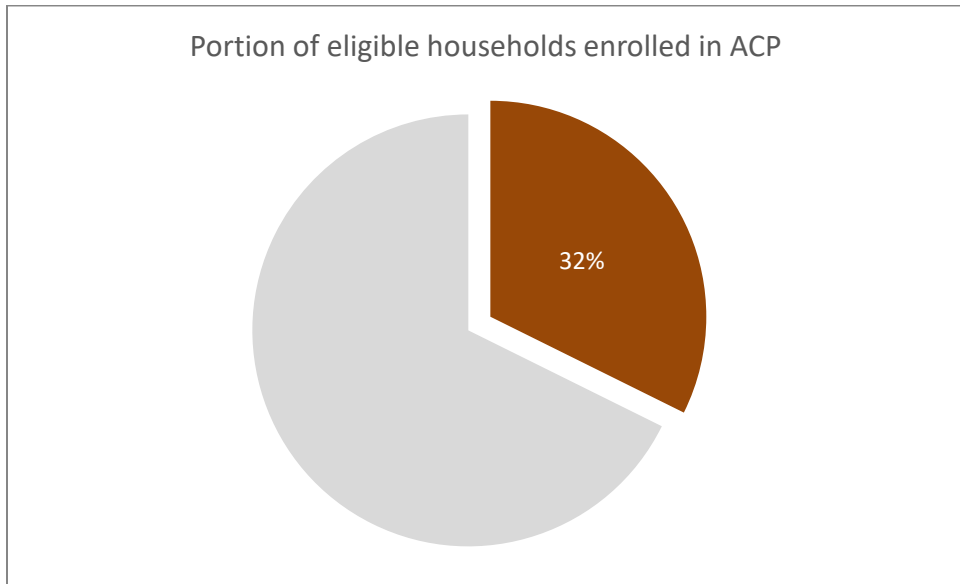
## Socorro County

**Figure 121: Broadband service availability – Socorro County**

Percentage of locations with access to at least 100 / 100 — 1%

Percentage of locations with access to at least 100 / 20 — 44%

Percentage of locations with access to at least 25 / 3 — 57%
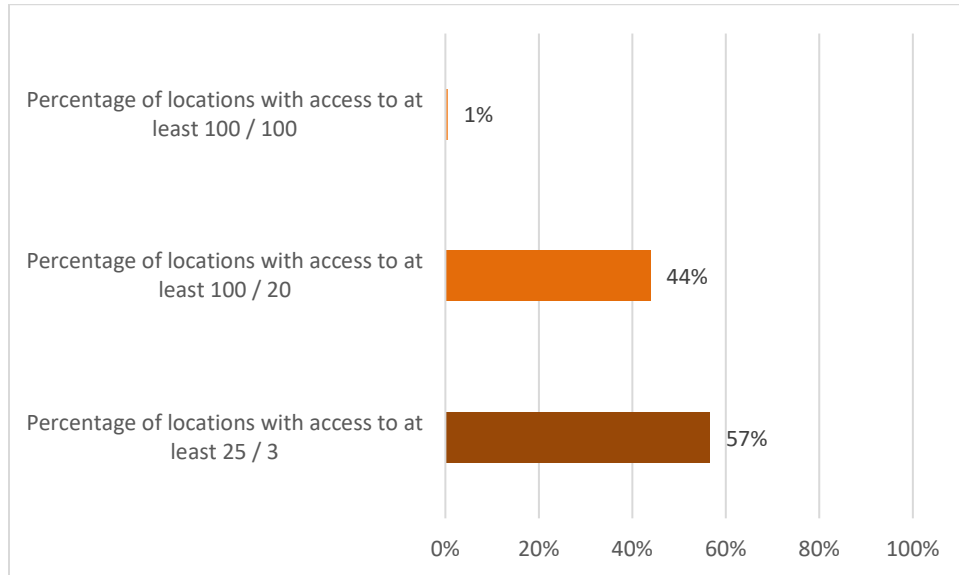
**Figure 122: Broadband adoption – Socorro County**

Percentage of households subscribed to mobile data plan only — 10%

Percentage of households subscribed to wireline service — 39%

Percentage of households subscribed to internet service — 57%
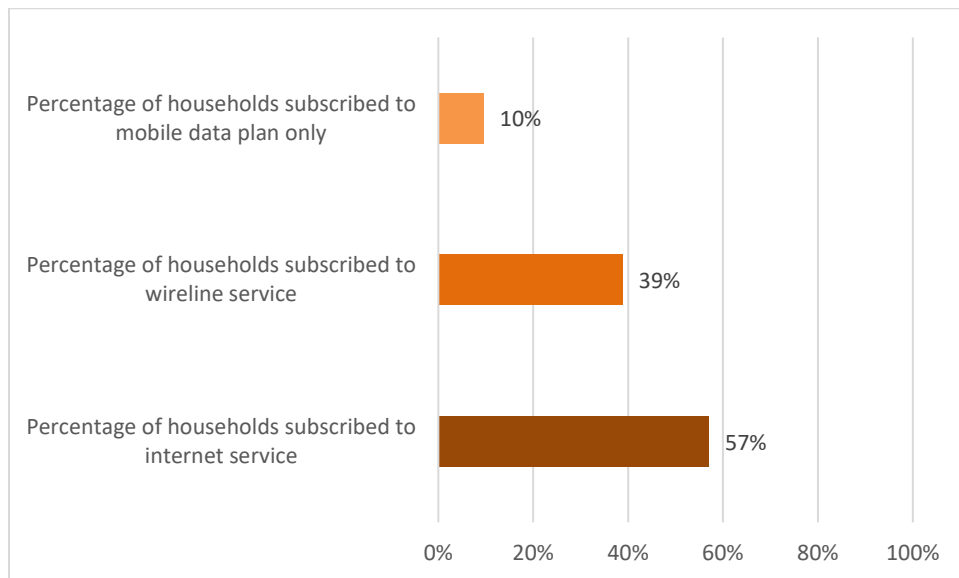
**Figure 123: Device ownership – Socorro County**

Households with laptop/desktop

61%

**Figure 124: Broadband affordability – Socorro County**

Portion of eligible households enrolled in ACP

40%
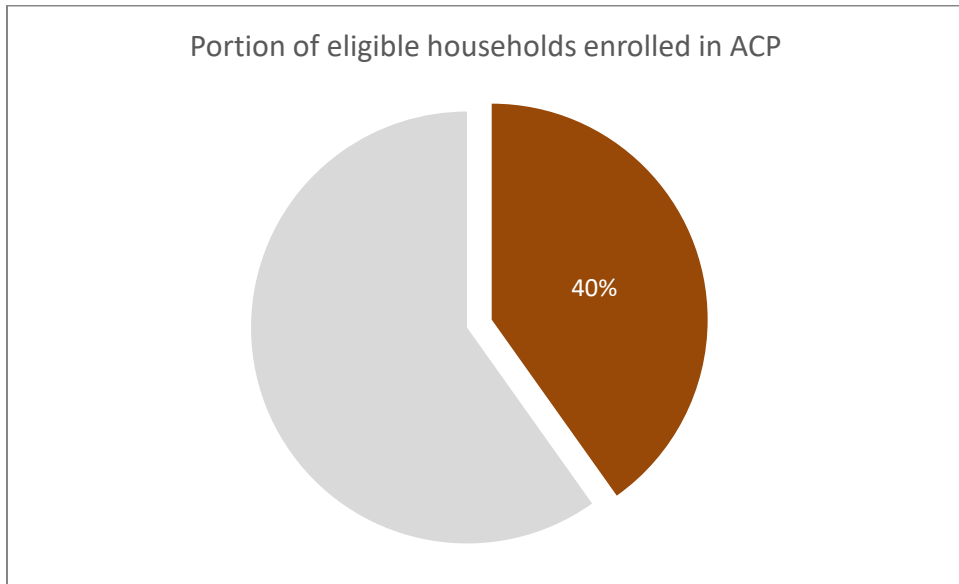
## Taos County

**Figure 125: Broadband service availability – Taos County**
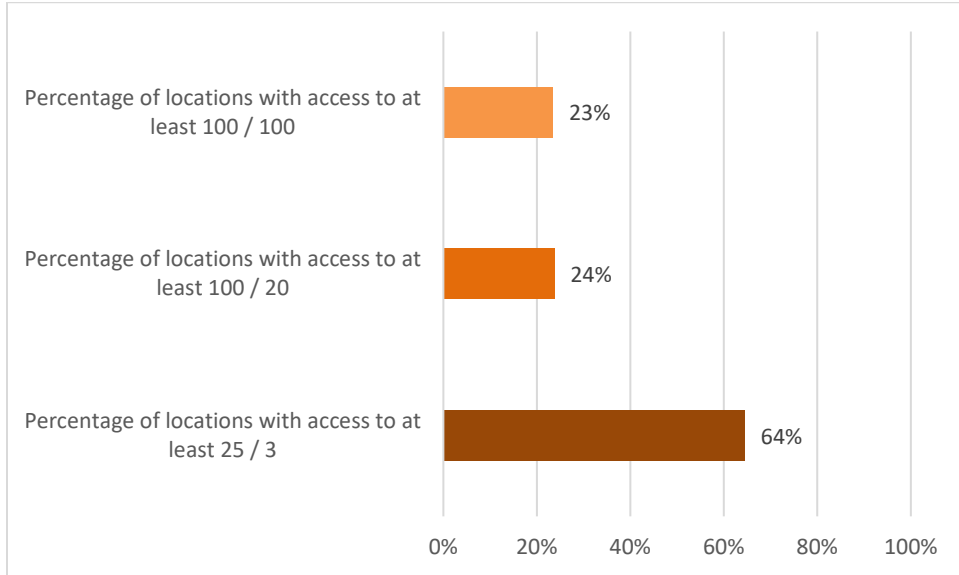


**Figure 126: Broadband adoption – Taos County**
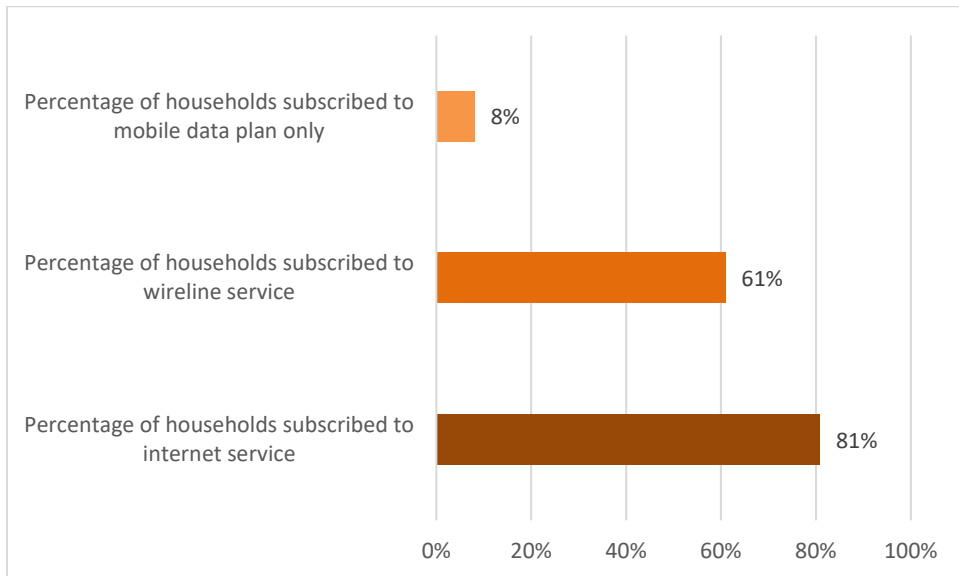
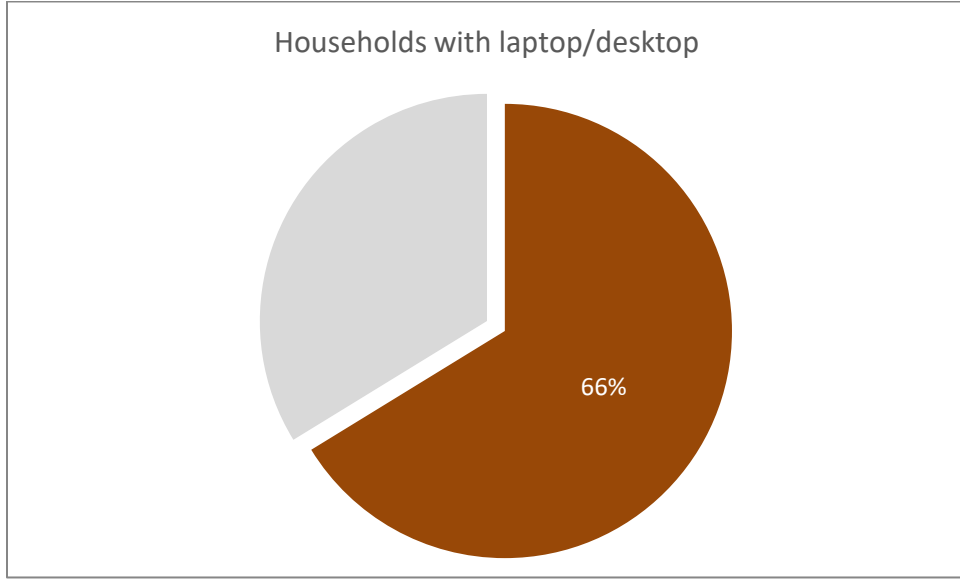**Figure 127: Device ownership – Taos County**

Households with laptop/desktop



78%
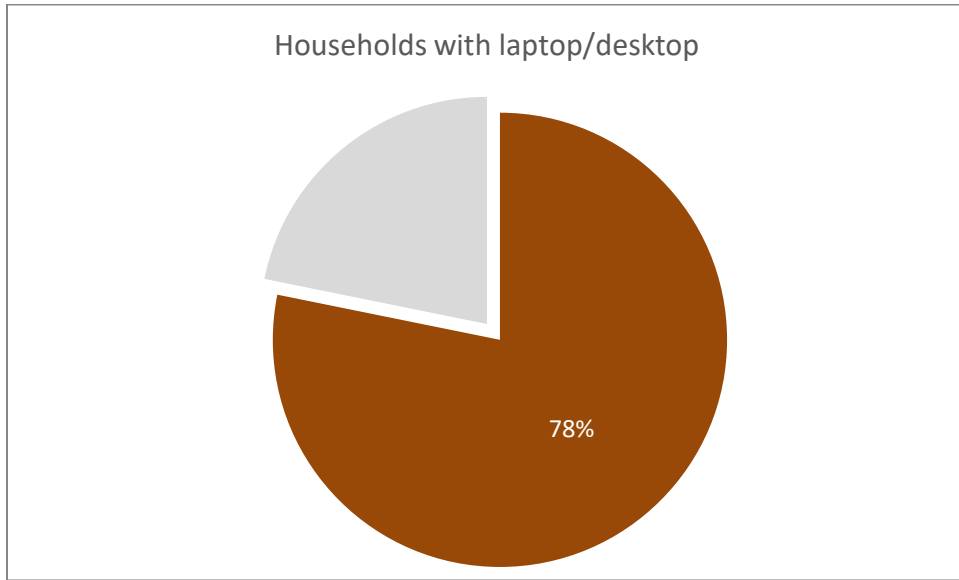
**Figure 128: Broadband affordability – Taos County**

Portion of eligible households enrolled in ACP



28%
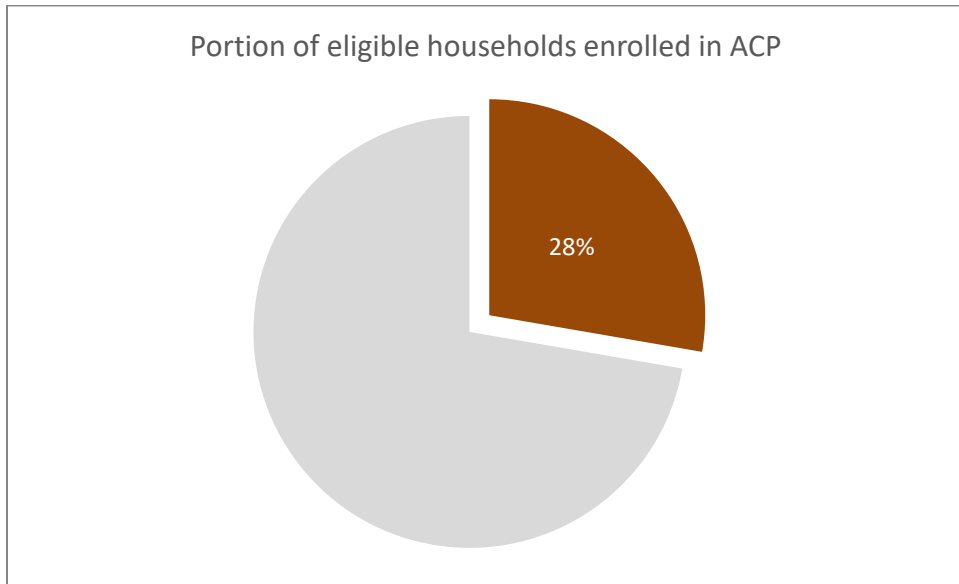
## Torrance County

**Figure 129: Broadband service availability – Torrance County**
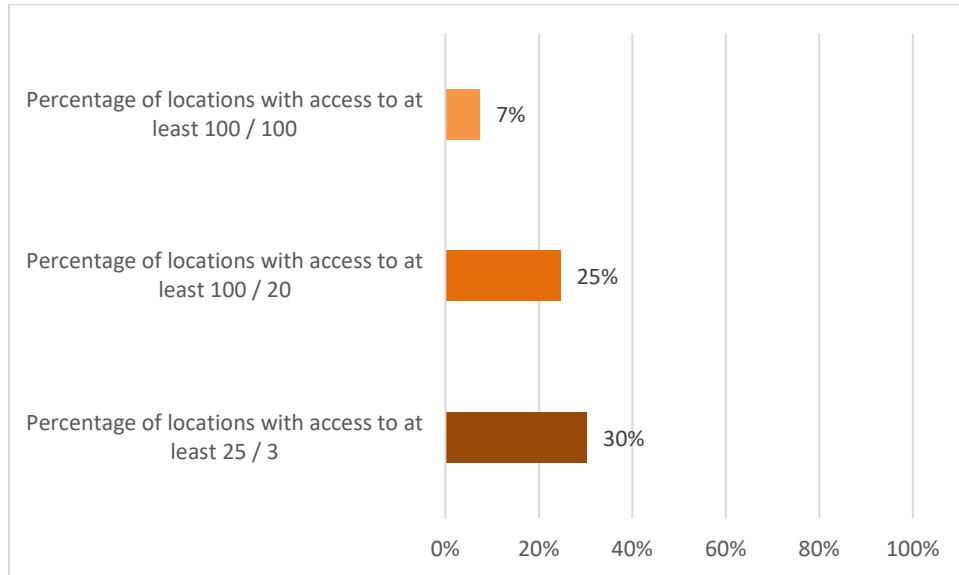


**Figure 130: Broadband adoption – Torrance County**
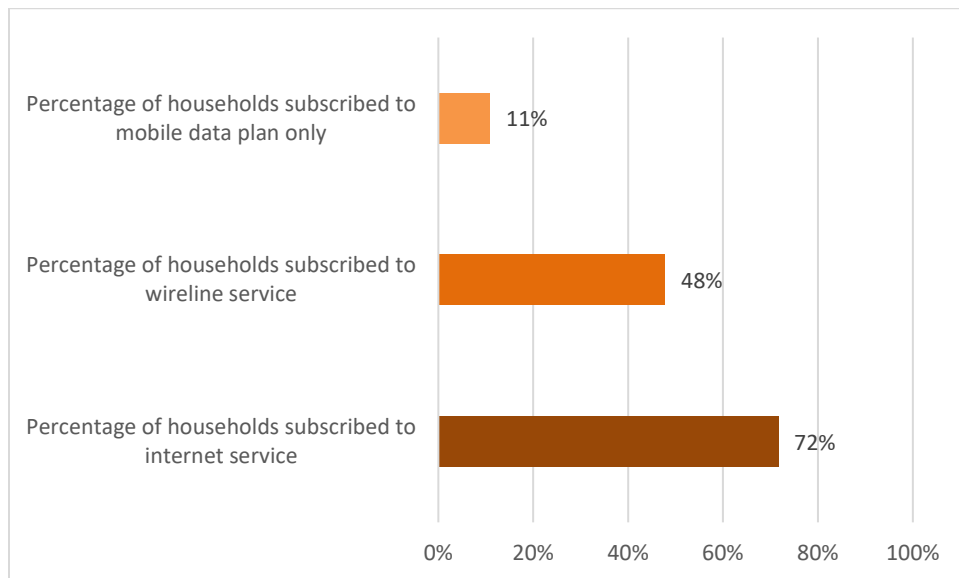
**Figure 131: Device ownership – Torrance County**

Households with laptop/desktop

66%

**Figure 132: Broadband affordability – Torrance County**

Portion of eligible households enrolled in ACP

27%
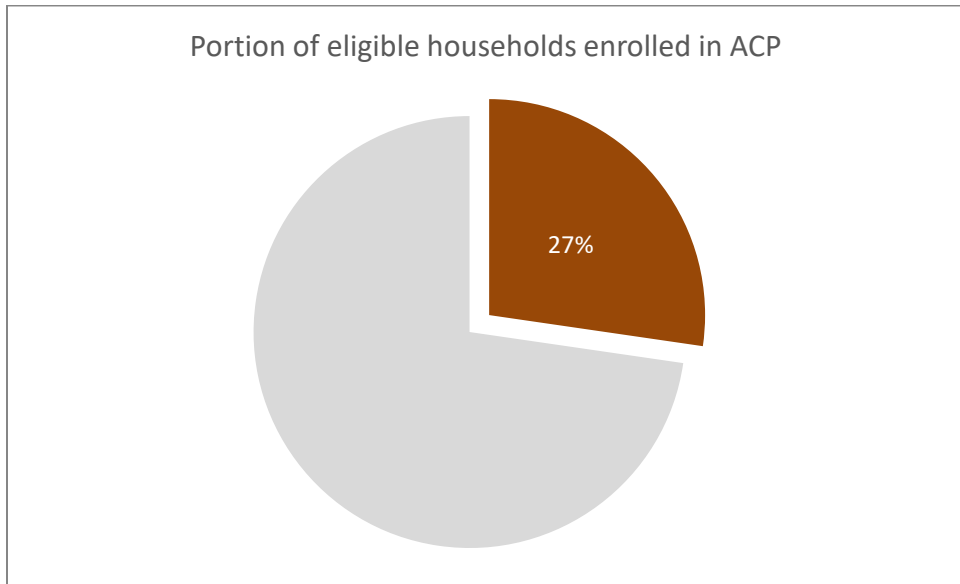
## Union County

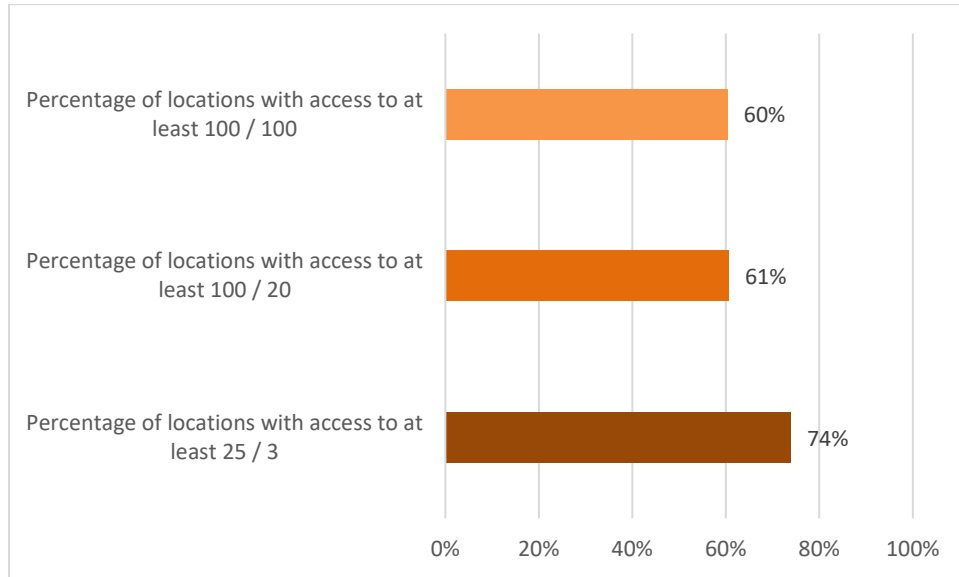**Figure 133: Broadband service availability – Union County**



**Figure 134: Broadband adoption – Union County**

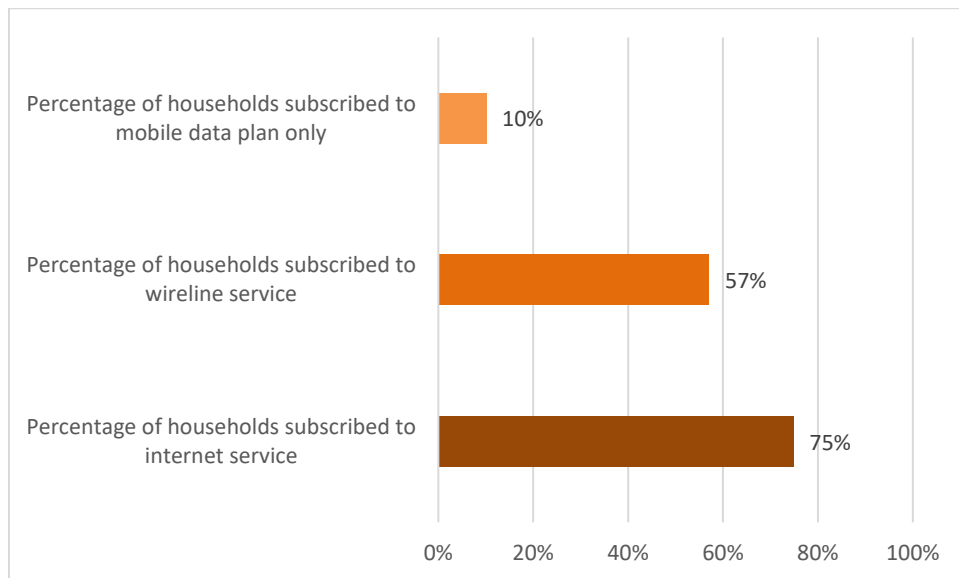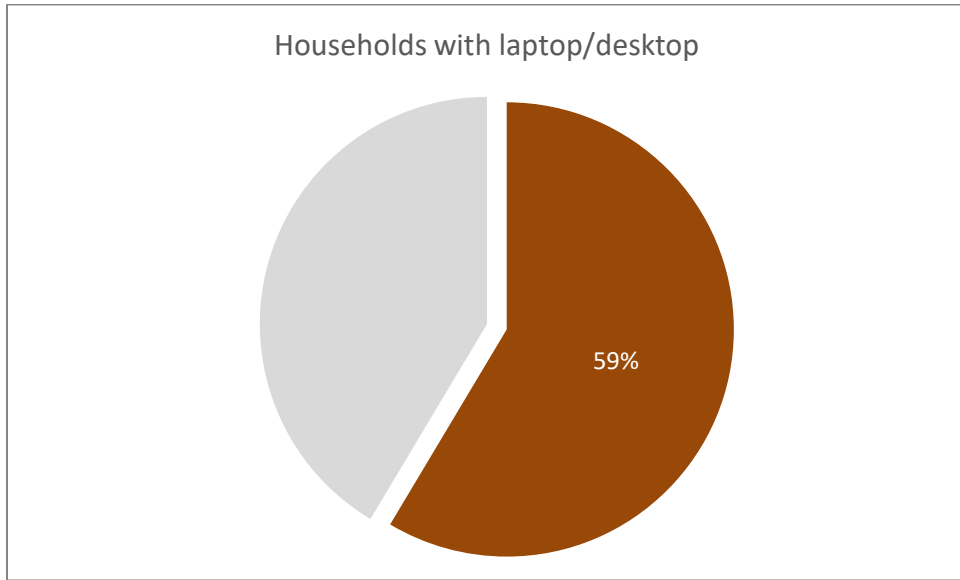**Figure 135: Device ownership – Union County**



Households with laptop/desktop

59%

**Figure 136: Broadband affordability – Union County**



Portion of eligible households enrolled in ACP

20%
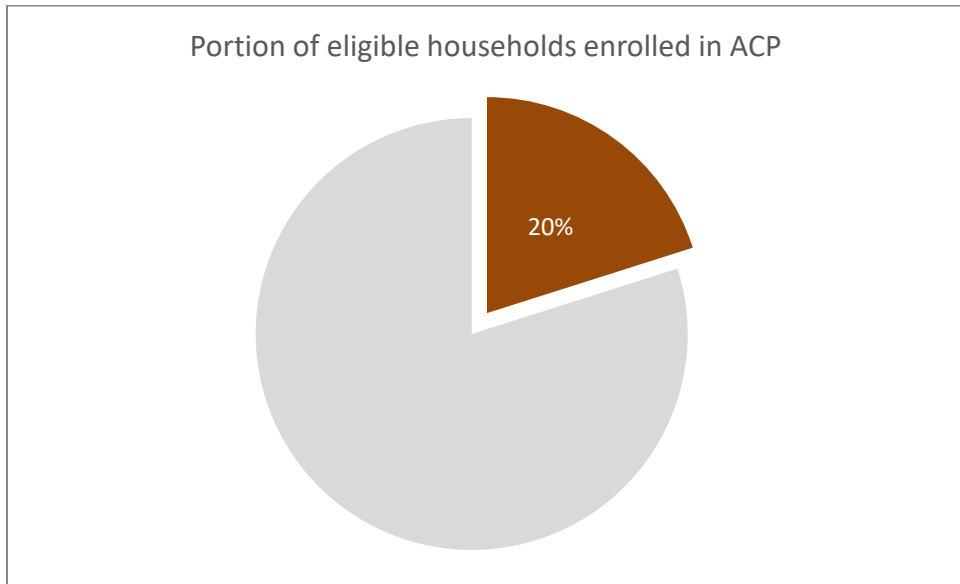
# Valencia County

**Figure 137: Broadband service availability – Valencia County**



Percentage of locations with access to at least 100 / 100 — 10%
Percentage of locations with access to at least 100 / 20 — 76%
Percentage of locations with access to at least 25 / 3 — 81%
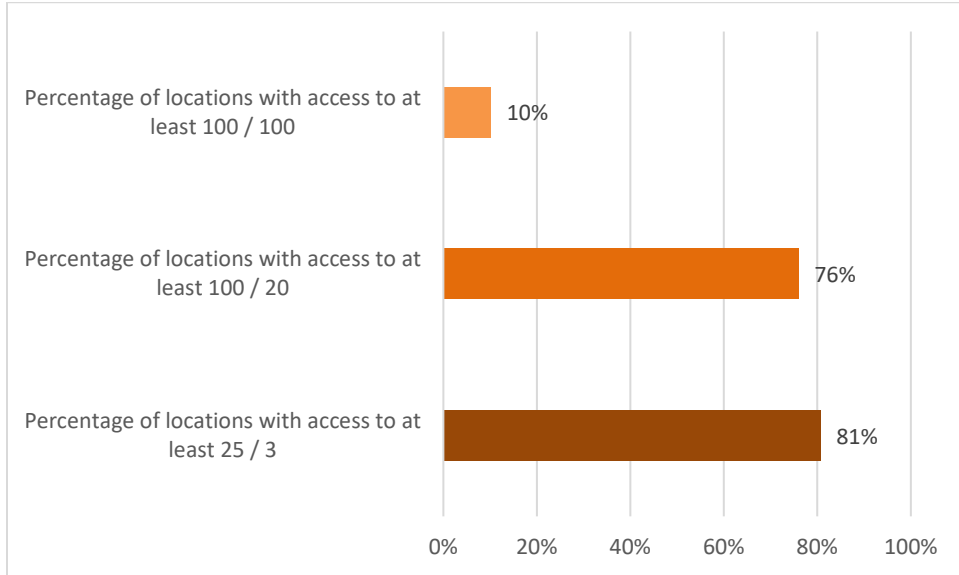
**Figure 138: Broadband adoption – Valencia County**



Percentage of households subscribed to mobile data plan only — 13%
Percentage of households subscribed to wireline service — 54%
Percentage of households subscribed to internet service — 75%
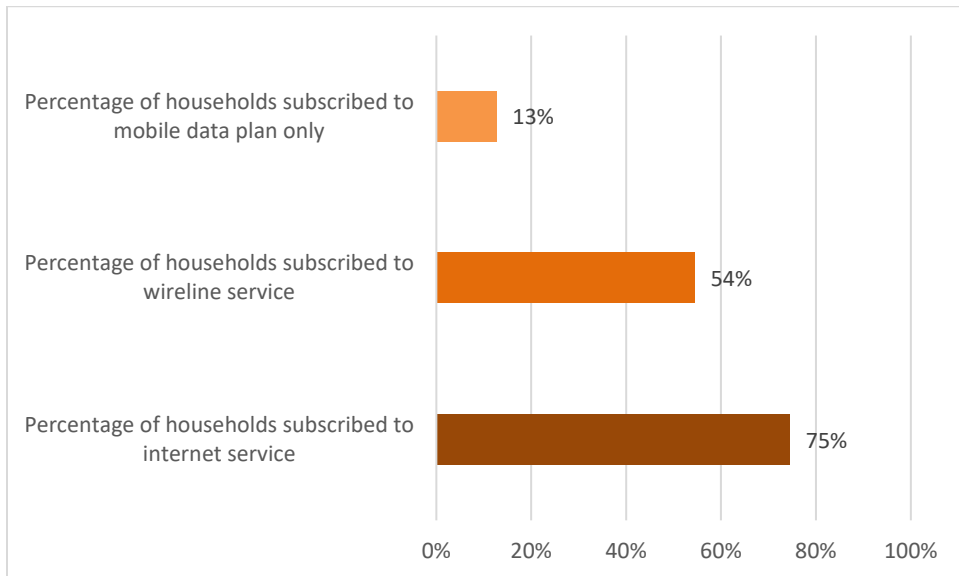
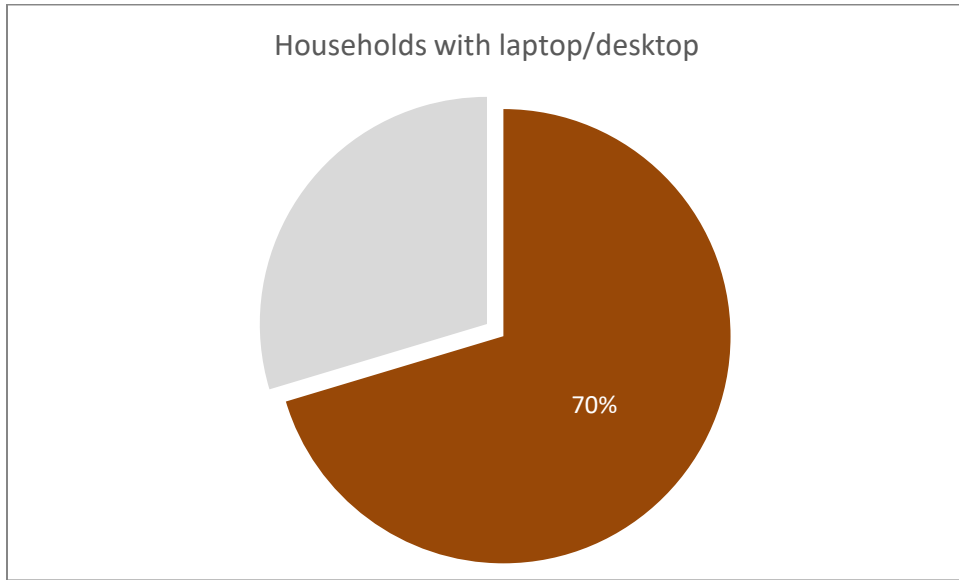**Figure 139: Device ownership – Valencia County**

Households with laptop/desktop

70%

**Figure 140: Broadband affordability – Valencia County**

Portion of eligible households enrolled in ACP

42%