Broadband for Economic Development in Rural & Tribal Communities
What is Broadband?

Broadband refers to **high-speed Internet access** that is always on and is significantly faster than traditional dial-up access. Broadband includes several high-speed transmission technologies, such as **fiber optic**, **wireless**, **Digital Subscriber Line (DSL)**, and **coaxial cable**.
Why Broadband Matters

Broadband transforms, sustains, and connects communities.
Key Broadband Terms

**Speed**
Pace at which data can pass through a network connection, generally measured by Megabits per second (Mbps)

**Bandwidth**
Capacity or maximum amount of data that can pass through a network connection at any time

**Latency**
Delay between a user’s request for data (e.g., “click”) and the delivery of data (e.g., website accessibility)

**Reliability**
Consistency and predictability at which broadband service is provided
Broadband Connection Types
Baseline Broadband Speed

Fast reliable Internet is vital for communities to **fully participate** in the economy. Baseline speeds **help communities evaluate** if they have adequate speeds for today’s capabilities. Different broadband technologies have **very different speeds and capabilities**. Download **speed requirements vary** based on the activity, location and number of users.
Technology and Our Workforce

The Importance of Technological Skills

77% of all jobs require at least some technology skills.

In April 2020, early in the Coronavirus crisis, 62% percent of employed Americans worked from home, double the number that did so the month before.
Technology and Our Workforce

The Impact on Earnings

In 2019, the median wage for people with computer and technology experience was nearly **$89K – more than double the median of $39K for all other occupations.**

In 2019, the median wage for telecom line installer and repair people was **more than $65K.** The job generally requires a HS degree with 200,000 positions across the country.
Digitally advanced small businesses earn 2x revenue per employee, and they are 3x as likely as peer businesses to create new jobs.

For every job created by a small, rural communications provider, nearly two additional jobs are created for service, support, and supplier industries.
Precision Agriculture

Fully connected and digitized farms could result in economic benefits of nearly 18% of total agriculture production.

Precision agriculture has the potential to increase sustainability in agriculture by reducing water usage by 20-50%, fuel usage by 40%, and chemical application by up to 80%.
Broadband Transforms Communities

Telehealth visits increased 154% in March 2020.

Broadband access can increase home values by an average of 3.1%.
Changes in Our Reliance on Home Internet...

- **51.0%** of Americans used the Internet for calls and conferencing.*
- **23.8%** of Americans worked remotely via the Internet in 2019.*
- **36.6%** reported teleworking during the September 16 to 28, 2020 survey week.**
- In April 2020, early in the Coronavirus, a Gallup poll found that **62%** of employed Americans worked from home – double the number that did so the month before.

*NTIA Internet Use Survey  **US Census Pulse Survey Sept 2020
Community Broadband Roadmap
PROGRAM PROFILE:
RURAL BUSINESS DEVELOPMENT GRANT (RBDG)

Under Governor’s Ducey’s leadership, Arizona allocated $3 million in taxpayer funding to expand broadband services in underserved rural areas across the state. The grants are awarded in two separate categories: **RBDG – A**, shovel-ready projects to immediately improve broadband infrastructure; and **RBDG – B**, broadband planning activities for projects that are not shovel ready.

Technical Assistance Summary

The Arizona Commerce Authority coordinates broadband development activities in partnership with state and local government stakeholders and the private sector to streamline regulatory hurdles and maximize strategic broadband funding for Arizona. This includes collaboratively forming Broadband Action Teams (BATs), facilitating local partnerships with providers and consulting on network development plans.

<table>
<thead>
<tr>
<th><strong>RBDG – A: Construction Grant Summary</strong></th>
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<tr>
<td><strong>Granted</strong></td>
<td>$2,805,500</td>
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<td><strong>Total Fiber Miles</strong></td>
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<td><strong>Communities Served</strong></td>
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<td><strong>Population Served</strong></td>
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<th><strong>RBDG – B: Planning Grant Summary</strong></th>
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<td><strong>Communities Served</strong></td>
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<td><strong>Population Served</strong></td>
<td>109,311</td>
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**TOTAL**

| **Total Granted**                        | $3,000,000 |
| **Communities Served**                   | 40 |
| **Population Served**                    | 143,709 |

**Broadband Technical Assistance**

| **Counties Receiving Technical Assistance** | 14 |
| **Cities/Towns Receiving Technical Assistance** | 43 |
| **Universities Receiving Technical Assistance** | 3 |
| **Number of Broadband Action Teams (BATs) Formed** | 14 |
Federal Funding

USDA

EDA

NTIA

FCC
The End/Only the Beginning!