Connecting Everyone to Broadband

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Broadband Delivered During COVID


More than 4 in 5 adults (84%) rate their home Internet positively, including 36% who rate it as excellent.

Comcast Average Upstream and Downstream Usage per Customer (GB)

<table>
<thead>
<tr>
<th>Category</th>
<th>% Total Traffic 2/2020</th>
<th>% Total Traffic 12/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streaming &amp; Web Video</td>
<td>66%</td>
<td>62%</td>
</tr>
<tr>
<td>Gaming</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Web Traffic</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>VPN</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>VoIP &amp; Video Conferencing</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Rest</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>
Tremendous Value for Consumers

CPI for Internet Services vs. CPI for All Services

CPI-U Unadjusted Percentage Change
Aug. 2021 – Aug. 2022

Avg. Monthly Cost Per Household ($)

Source: Bureau of Labor Statistics

Source: Consumer Expenditure Survey, 2020
Broadband Gaps to Solve

**Deployment Gap:**
8 million people

**Adoption Gap:**
76 million people

Source: FCC Broadband Map. All years December Form 477 data except 2021 which is June data.

Source: Pew Research
For years the FCC relied on Form 477 census-block data, which overstated broadband availability.

At Congress’s direction, the FCC is developing granular maps based on a data fabric of the coords. of every U.S. broadband-serviceable location.

Providers will report every location their networks pass and deployed speeds at each location.

**Mapping Mistakes to Avoid**

**CROWDSOURCING**

- Crowdsourced (e.g., speed test) data may be useful for studying adoption, confirming deployment but misleading as sole basis for determining deployment (Ford, 9/22)
- Consumer awareness of subscribed/available speeds is unreliable (New Street, 9/22)

**INFERENCES**

- Microsoft maps based on data from Microsoft products; M-Lab testing protocol designed as a diagnostic tool – not to measure consumer speed performance
- Do not account for use of other products, connection types, device tech, etc.

**OVERSTATED DATA**

- Granular, location-by-location data will mitigate against census-block inaccuracies
- New FCC maps will report deployed speeds, metric used to define BEAD un- and underserved areas – eliminating need for less reliable State efforts
- States should participate in FCC challenge process but should not expend limited BEAD funds on own duplicative maps
### Closing the Adoption Gap

#### Barriers to Adoption

<table>
<thead>
<tr>
<th>Structural Barriers</th>
<th>Digital Skills</th>
<th>Relevance</th>
<th>Distrust</th>
<th>Information &amp; Language</th>
<th>Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex housing arrangements, home transiency make logistics of fixed adoption difficult</td>
<td>Unfamiliar with device hardware and functionality (e.g., emailing, browsing, word processing)</td>
<td>Lack of appreciation for the benefits of fixed broadband/devices, particularly older pops.</td>
<td>Biases against free services, government programs, uncertainty re: ongoing costs, privacy concerns</td>
<td>Determining eligibility, parsing application process, setting up services/devices</td>
<td>Unaware of subsidy programs for connectivity/devices, community resources</td>
</tr>
</tbody>
</table>

#### Support and Augment ACP

- Directly address affordability through **direct broadband subsidies** to low-income households – eligible uses under both ARPA’s SLFRF and BEAD
- Can be a “top up” subsidy for any ACP households wanting to purchase faster speeds (e.g., Maryland Emergency Broadband Benefit program)

#### Community-Based Adoption Programs Led by Digital Navigators

- Effectively address the most difficult barriers by investing in trusted community partners via non-deployment BEAD eligible uses
- Added benefit of aligning BEAD with Digital Equity Act efforts