Wyoming | 2019 Connectivity Snapshot

21st century learning is increasing the demand for broadband. Schools need to continue to grow their bandwidth to make technology a part of learning in every classroom, every day.

MEETING FCC BANDWIDTH GOALS:

100% of your students are meeting 100 kbps per student, and

58% of your students are meeting 1 Mbps per student, in comparison to 24% nationally

“Over many years, Wyoming’s robust educational network has grown an infrastructure that goes beyond federal standards for student connectivity. We welcome the FCC’s 1 megabit per second per student bandwidth goal and are committed to ensuring school bandwidth continues to grow to meet the digital learning needs of our students. With access to the very best technologies, our children are equipped to prosper in today’s changing economy and to shape their own destiny.”

- Governor Mark Gordon

BANDWIDTH

AFFORDABILITY

The decline in broadband prices makes it possible for network providers to upgrade every district to 1 Mbps per student.

FIBER

Since 2016, Wyoming has upgraded 92% of its unscaleable schools to fiber.

292 schools now have scalable infrastructure, and only

3 schools still need to be upgraded to scalable infrastructure

WI-FI

E-rate funds have enabled Wyoming schools to upgrade Wi-Fi networks and bring broadband to every classroom.

$4.8 M

in federal Wi-Fi funding has been utilized in Wyoming since 2015

Source: USAC Form 471 2019 E-rate applications, n=48 of 48 school districts, n=295 of 295 schools, n=92,947 of 92,947 students

1 Mbps = 1,000 kbps
**BANDWIDTH**

**Median District Bandwidth per Student**

We determine a school district’s bandwidth by dividing the district’s total monthly internet access bandwidth by the number of students. We determine the median district bandwidth per student by calculating the median of all districts in the state. The increase factor is generated by dividing the median bandwidth per student in 2019 by the median bandwidth per student in the first year represented on the chart.

**Students meeting FCC Bandwidth Goals**

We assess if a district is meeting the short-term (100 kbps/student) and long-term (1 Mbps/student) FCC Bandwidth Goals by dividing the district’s total monthly internet access bandwidth by the number of students. We then sum the total number of students in every district meeting the goals.

To account for oversubscription, we discount the amount of bandwidth needed based on the size of the district:

<table>
<thead>
<tr>
<th>District Size</th>
<th>Meeting Long-term Bandwidth Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 schools</td>
<td>1 Mbps per student</td>
</tr>
<tr>
<td>6-15 schools</td>
<td>850 kbps per student</td>
</tr>
<tr>
<td>16-50 schools</td>
<td>700 kbps per student</td>
</tr>
<tr>
<td>51-99 schools</td>
<td>400 kbps per student</td>
</tr>
<tr>
<td>100+ schools</td>
<td>170 kbps per student</td>
</tr>
</tbody>
</table>

**AFFORDABILITY**

**Cost per Mbps**

We determine the state’s cost per Mbps by dividing the sum of all districts’ monthly internet costs by the sum of all districts’ internet bandwidth amounts.

**Cost per Mbps of All Districts Meeting 1 Mbps per student**

We generate by taking the average cost per Mbps for every district in the nation that is meeting the 1 Mbps goal.

**FIBER**

**Fiber Upgrades Since 2016**

This metric shows the percentage of public K-12 schools that have been upgraded from a non-scalable connection to fiber since 2016.

**% of Schools on Fiber**

This metric shows the percentage of public K-12 schools in the state that are currently connected on a scalable fiber connection. Fixed wireless connections with capabilities of 1 Gbps are a sufficient option for some school districts.

**Schools with or without scalable infrastructure**

This metric reports on the availability of scalable infrastructure based on the FCC-recommended goal that every school’s broadband infrastructure be scalable to 10 Gbps (which currently requires fiber). There are some cases in which a 10 Gbps connection is not required because of school population. In these cases, we made an assumption that these schools already have sufficient infrastructure. For schools where the connection type was unknown, we applied a set of rules to determine the connection type based upon extensive research.

**WI-FI**

“WI-FI funds” are E-rate Category 2 funds for schools to upgrade their internal connections. For funding years 2015 - 2019, the FCC provided every school with a Category 2 budget (adjusted yearly for inflation) of $150 per student or a minimum of $9,200 per school. We calculated the total Category 2 funding utilized by summing the funds requested by districts (excluding the requests denied by USAC) for Funding Years 2015 - 2019.