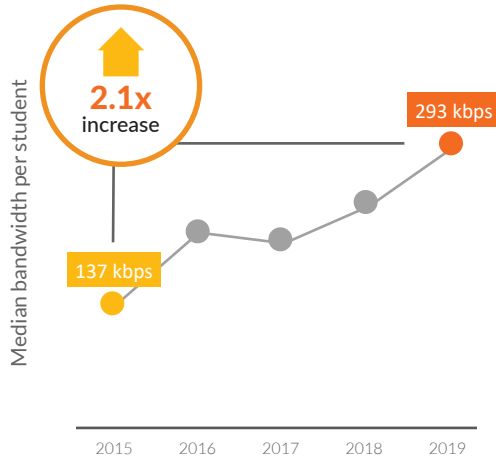


Kentucky | 2019 Connectivity Snapshot

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.



BANDWIDTH



MEETING FCC BANDWIDTH GOALS:

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

0%

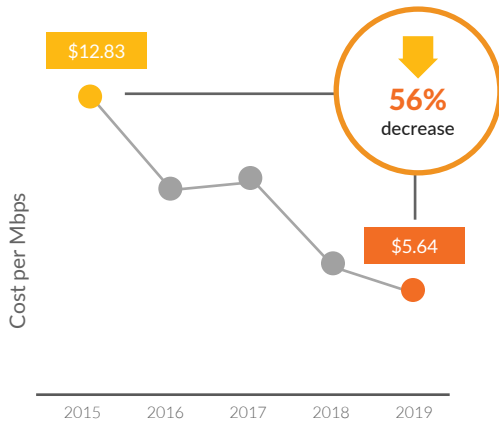
of your students are meeting 1 Mbps per student, in comparison to 24% nationally

“Every student in the commonwealth should have the same opportunities to succeed and earn a quality education regardless of where they live. To prepare students, we need to ensure that all classrooms across Kentucky, both urban and rural, are equipped with 21st-century technology including pushing toward the FCC’s long-term goal of 1 Mbps per student to deliver world-class connectivity to our schools.”

- Governor Andy Beshear

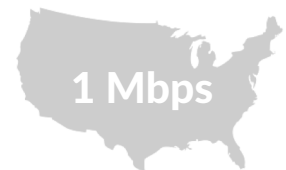
AFFORDABILITY

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



\$5.64
Kentucky cost per Mbps

VS



\$2.58
average cost per Mbps of all districts meeting 1 Mbps per student

FIBER



100%
of your schools are on scalable connections

WI-FI

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

\$72.2 M
in federal Wi-Fi funding has been utilized in Kentucky since 2015

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:

District Size	Meeting Long-term Bandwidth Goal
1-5 schools	1 Mbps per student
6-15 schools	850 kbps per student
16-50 schools	700 kbps per student
51-99 schools	400 kbps per student
100+ schools	170 kbps per student

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

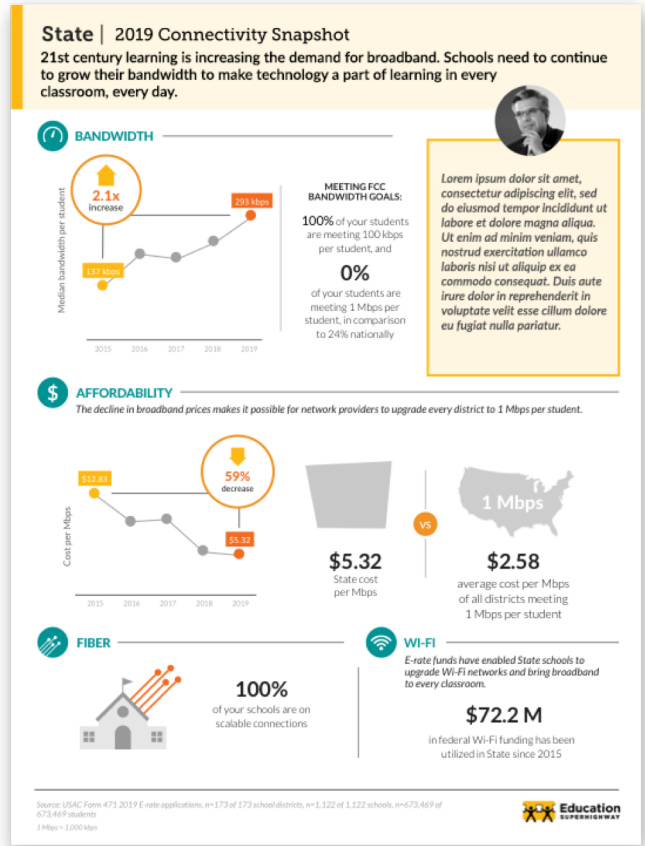
This metric shows the percentage of public K-12 schools that have been upgraded from a non-scalable connection to fiber since 2016.

% 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.