

Progress in Connecting K-12 Students

OHIO



"In our classrooms, the methods and technologies we apply to teaching are evolving at record speed and those in education are hungry to expand digital learning opportunities. By becoming the first state to expand our broadband capacity to an impressive 100GB/second statewide, we are better able to help educators who are looking to transform their classroom or expand training and workforce programs."
Governor Kasich

1,315,450

total students in 574 school districts meet the minimum recommended bandwidth goal.

Since 2015, an additional **316,892 students** in 114 school districts upgraded to the minimum recommended bandwidth.



STATE INITIATIVE HIGHLIGHTS

State leaders created a cross-agency working group to ensure that all schools have the connectivity they need.

In 2017, Ohio leveraged \$66.3 million of federal E-rate funds.

Closing the K-12 Connectivity Gap

245,550

students in 41 school districts still need to be connected to the minimum recommended bandwidth goal.

5 service providers can upgrade **167,320 students**

State leaders can engage with the service provider community and school district leaders to provide access to digital learning for most Ohio K-12 students by the start of the 2018 school year.



FIBER INFRASTRUCTURE

2,447 schools have fiber infrastructure

17 schools

still need fiber with 71% in rural and small town communities



WI-FI FUNDS

\$245.5 million was made available for Wi-Fi upgrades in all districts

\$95.1 million

in Wi-Fi funds still available for 603 school districts



BROADBAND COSTS

410 districts meet benchmark prices for broadband services

158 school districts

do not meet national benchmark prices for broadband services



About the Metrics

TOTAL STUDENTS AND SCHOOL DISTRICTS CONNECTED

This metric is based on an extrapolation of the percent of students or school districts in the sample that are meeting the minimum connectivity goal to the entire population of students or school districts in the state. Student populations are based on 2014-15 National Center for Education Statistics (NCES) data and updated based on input from school districts.

ADDITIONAL STUDENTS AND SCHOOL DISTRICTS CONNECTED

This metric shows the increase in students or school districts since 2015 that are meeting the Federal Communications Commission (FCC) minimum connectivity goal of 100 kbps per student. Using the reported increase of students or school districts from 2016, we added the number of students or school districts who are newly meeting minimum connectivity goals in 2017.

This is an extrapolation of the percentage of students or school districts in the sample that are meeting goals to the entire population of students or districts in the state. Students or districts meeting the goal is calculated by taking the difference in the number of students or school districts meeting minimum connectivity from 2017 and 2016.

Student populations are based on 2014-15 NCES data and updated using input from school districts.

STUDENTS AND SCHOOL DISTRICTS THAT NEED TO BE CONNECTED

This metric shows the total number of students or school districts that are not meeting the FCC minimum connectivity goal. We take the total number of students or school districts in the state and subtract the total students and school districts connected.

FIBER INFRASTRUCTURE

This metric reports on the availability of scalable infrastructure based on the FCC-recommended goal that every school's broadband scale to 10 Gbps (which currently requires fiber). For schools where the connection type was unknown, we applied assumptions based on extensive research.

WI-FI FUNDS

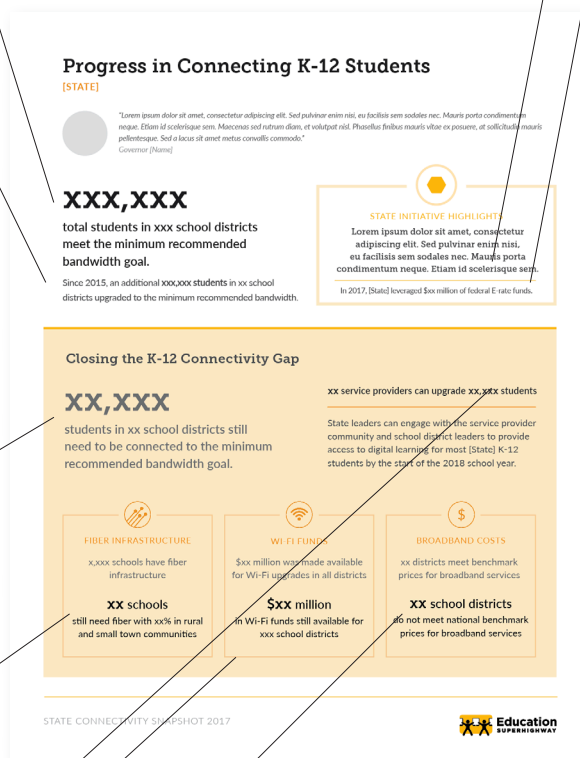
This metric profiles the extent to which school districts have taken advantage of their Category 2 budgets. The FCC provided every school district with a \$153.47 per student (adjusted yearly for inflation) total "Category 2" budget from 2015-2019 to upgrade internal connections in schools. We calculated the total Category 2 budget remaining for 2018-19 after subtracting funds requested in 2015 - 2017. We applied school district E-rate discount rates when available; otherwise, we applied the aggregate state E-rate discount rate.

E-RATE FUNDS LEVERAGED

This metric is based on original funding commitment requests in 2017 from applicants within a state - does not include requests for voice or libraries, however. An original funding commitment request occurs after any changes are made to the application, and is equal to the cost of the service multiplied by the applicant's discount rate.

STATE MATCHING FUNDS (IF APPLICABLE)

This is the amount of funding made available to school districts by the state to leverage additional federal E-rate dollars for special fiber construction in 2017.



SERVICE PROVIDERS CONNECTING STUDENTS

Up to the top 5 primary service providers by state were ranked by the total number of students they serve that still are not meeting the minimum connectivity goal of 100 kbps per student. A service provider is considered primary if they provide at least 50% of a district's total bandwidth.

BROADBAND COSTS

This metric compares the amount of bandwidth school districts currently receive to the amount they could receive if those same funds were used to buy Internet access at 2015 national benchmark prices.

Internet Access Circuit Size	Price Benchmark (\$/Mbps)
10 Gbps	\$0.75
1 Gbps	\$3.00
500 Mbps	\$5.50
200 Mbps	\$9.00
100 Mbps	\$12.00
50 Mbps	\$14.00