

Progress in Connecting K-12 Students

ARIZONA



"High-speed Internet is the necessary foundation for taking advantage of technology in the classroom. I support expanding broadband connectivity in every classroom in our state to ensure our students have the tools and skills they need to succeed in school and beyond."
Governor Ducey

773,374

total students in 187 school districts meet the minimum recommended bandwidth goal.

Since 2015, an additional 297,088 students in 56 school districts upgraded to the minimum recommended bandwidth.



STATE INITIATIVE HIGHLIGHTS

Governor Ducey and state leaders launched the Arizona Broadband for Education Initiative and worked together to fund an \$11 million state matching fund for broadband upgrades.

In 2017, Arizona leveraged \$75.7 million of federal E-rate funds.

Closing the K-12 Connectivity Gap

115,461

students in 19 school districts still need to be connected to the minimum recommended bandwidth goal.

5 service providers can upgrade 100,323 students

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



FIBER INFRASTRUCTURE

1,087 schools have fiber infrastructure

75 schools still need fiber with 99% in rural and small town communities



WI-FI FUNDS

\$139.7 million was made available for Wi-Fi upgrades in all districts

\$35.6 million in Wi-Fi funds still available for 169 school districts



BROADBAND COSTS

54 districts meet benchmark prices for broadband services

117 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 adding the number of students in districts that underwent upgrades in 2016 to the number of students meeting minimum connectivity in 2016.

The number of students in upgraded school districts is determined by adding the total number of students in districts that 1) went from not meeting the minimum connectivity goal in 2016 to meeting the goal in 2017, and 2) have increased their total bandwidth by 10% or more.

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

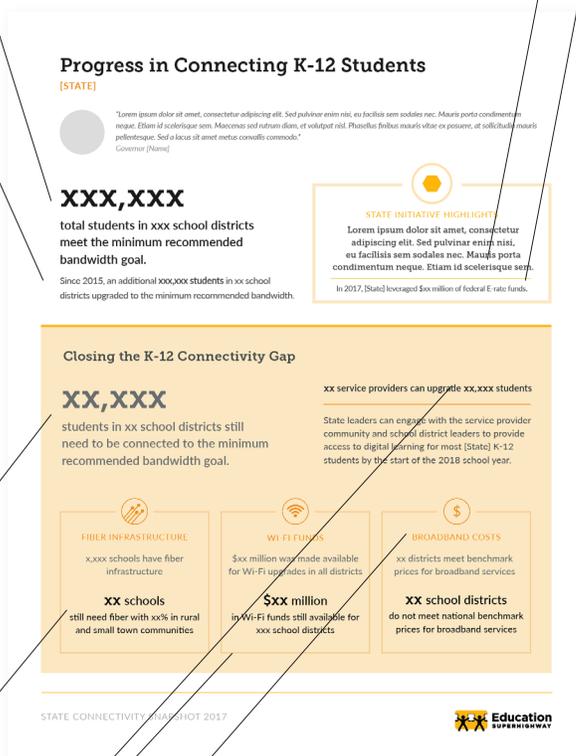
This metric profiles the extent to which school districts have taken advantage of their Category 2 budgets. The FCC provided every school district with a \$153.47 per student (adjusted yearly for inflation) total "Category 2" budget from 2015-2019 to upgrade internal connections in schools. We calculated 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