

Schools and Broadband Speeds: An Analysis of Gaps in Access to High-Speed Internet for African American, Latino, Low-Income, and Rural Students

A Summary for Policymakers (October 2014)

In order for the United States to sustain its position as the world's leading economic power, it must modernize its education system dramatically, which includes providing access to high-speed internet to *all* students. Ten years ago, it was sufficient to have one computer lab in a school. Today, students, teachers, and library patrons increasingly rely on tablets, laptops, and other devices to access the internet.

As the internet continues to become an increasingly important part of the classroom and learning environment, two factors are critical to the successful expansion of internet in schools: *speed* and *equity*. Schools must have the capacity to serve students' bandwidth needs; using dial-up connections to complete an educational assignment is no longer acceptable. Moreover, the internet is an educational resource to which equal access is paramount. African American, Latino, low-income, and rural students should have the same access to adequate speeds as their white, more affluent, or urban/suburban counterparts.

Schools and Broadband Speeds,¹ an analysis of students and their schools' advertised internet speed, shows significant gaps in access for African American, Latino, low-income, and rural students. Students in these categories are more likely to be in schools with slow internet access (10 Mbps or less) than in those with the fastest-advertised internet (100 Mbps or more).

To address these inequities, the Federal Communications Commission must modernize and expand the E-rate program to ensure that at least 99 percent of the nation's students have access to high-speed internet in their schools and libraries within the next five years, regardless of color, socio-economic status, or zip code.

Racial inequity: Students of color are more likely than white students to have slow internet access at their schools.

- 1.75 million Latino students and 1.1 million African American students either lack access to high-speed internet or are over represented among students with slow internet access.
- Schools serving large populations of African American and Latino students are nearly half as likely as predominantly white schools to have access to high-speed internet.
 - ♦ 22.8 percent of students in “heavily minority” schools (75 percent or more students are either African American or Latino) have access to high-speed internet.
 - ♦ 39 percent of students in “heavily white” schools (75 percent or more white students) have access to high-speed internet.
- One-quarter (25.7 percent) of Latino students and more than one-fifth (22.8 percent) of African American students attend schools with slow internet access.

Income inequity: Low-income students² are nearly twice as likely as affluent students to have slow internet access at their schools.

- 2.75 million low-income students either lack access to high-speed internet or are over-represented among students with slow internet access.
- Low-income students are nearly twice as likely to have slow internet access as students attending affluent schools (with 25 percent or fewer low-income students).
 - ♦ 23.3 percent of all low-income students have slow internet access in their schools.
 - ♦ 13.6 percent of students attend affluent schools with slow internet access.
- Almost one-fourth (23.3 percent) of low-income students attend schools with slow internet access.

Rural inequity: Students in rural America are more than twice as likely as urban/suburban students to have slow internet access at their schools.

- 1.1 million rural students either lack access to high-speed internet or are over-represented among students with slow internet access.
- Students attending schools in remote rural areas are more than twice as likely as students in large suburban areas to have slow internet access.³
 - ♦ 35.5 percent of students attending schools in remote rural areas have slow internet access compared to 15.3 percent of students attending schools in large suburban areas.
- Students in remote rural areas are almost half as likely as students in large suburban areas to have access to high-speed internet.
 - ♦ One-third (33.3 percent) of students attending schools in large suburban areas have access to high-speed internet compared to 17.9 percent of students attending schools in remote rural areas.

Methodology

The above analysis was conducted by Dr. John Horrigan, the nation’s leading authority on broadband adoption and use. Two datasets from 2011 were merged and analyzed: (1) Common Core of Data compiled by the National Center for Education Statistics, U.S. Department of Education, and (2) the National Broadband Map, which is compiled by the National Telecommunications and Information Administration and the Federal Communications Commission.

The merged dataset with usable data for this analysis contains 32,544 K–12 public schools serving 17,416,092 students. The data used for this analysis includes information on number of students, location of school, students eligible for free or reduced-priced lunches, *and* the advertised network speed for the school’s internet service. Data reported is based on a non-random sample of schools that contain 35.4 percent of K–12 public school students and 33.2 percent of K–12 public schools.⁴

¹ J. Horrigan, *Schools and Broadband Speeds: An Analysis of Gaps in Access to High-Speed Internet for African American, Latino, Low-Income, and Rural Students*, (Washington, DC: Alliance for Excellent Education and LEAD Commission, 2014), www.99in5.org/resources/equity (accessed October 23, 2014).

² A low-income student is defined as a student who is eligible for free or reduced-price lunch.

³ The definitions of “remote rural” and “large suburban” areas are those utilized by the National Center for Education Statistics. A rural remote area is a “census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.” A large suburban area is a “territory outside a principal city and inside an urbanized area with population of 250,000 or more.” Source: <http://nces.ed.gov/ccd/commonfiles/localedescription.asp> (accessed October 16, 2014).

⁴ Figures in the report referring to millions of affected students are estimates derived from the author's analysis scaled to the total number of K-12 students in the United States as reported by the National Center for Education Statistics.