



## Getting Up to Speed

Digital learning does not happen without a reliable Internet connection. Only a few years ago, more than 40 million US students could barely stream online videos and only 30 percent of K-12 districts provided sufficient Internet access speed to support digital learning, as defined by the Federal Communications Commission (FCC) at 100 kbps per student by 2018.

Remedying that shortfall was one impetus behind President Obama's ConnectED initiative, a public-private effort that called on districts and companies to connect 99 percent of America's students to high-speed, wireless broadband by 2018. Recent reforms to the E-rate program, which subsidizes the cost of Internet in schools and libraries, opened up more funds to districts looking to upgrade their infrastructure.

Some progress has been made. At the end of last year, that 40 million number had been slashed nearly in half, with 20 million more students enjoying Internet speeds that meet the FCC's goal. San Francisco-based nonprofit by Education SuperHighway collected data from 6,781 public school districts across the nation—representing over 25 million students across approximately 49,000 schools—and found that 77 percent of school districts have hit the target speed. In all, an estimated 24.5 million students and 1.7 million teachers now enjoy enough broadband to make the most out of education technology tools.

### **What's your school's Internet speed? If you don't know, find out at [School Speed Test](#)**

Despite the progress made, over 21 million students still lack adequate Internet access and an estimated 9,500 of school districts lack fiber optic connections: the only commercially available technology that scalable enough to support the projected bandwidth needs for the vast majority of school districts.

According to CoSN (Consortium for School Networking) and the Education Super Highway, it will cost \$3.2 billion to equip and update public K-12 schools' existing infrastructure in order to meet President Obama's goal of connecting 99% of students by 2018

Following an April 2014 report by Education Super Highway that analyzed current E-rate spending, this latest report dives into fine detail, estimating how much it will cost schools to purchase, install and maintain equipment including wireless access points, wired drops, switches, ports, firewall and fiber cables. These per-classroom, per-school and per-district cost estimates were developed in consultation with 50 district chief technology officers, along with equipment vendors and networking experts.

According to the report:

“... the model projects that schools will require approximately \$2.9 billion of E-rate subsidies over the next four years to upgrade their LAN, WAN, and Wi-Fi networks. Assuming that libraries add an additional 10% to the upgrade cost, we arrive at a total E-rate subsidy requirement of approximately \$3.2 billion or \$800 million per year for the next four years.”

Doing market research—especially where there are multiple Internet service providers—is essential to getting better rates for Internet service. Neighboring districts could band together when negotiating Internet rates for more reasonable prices: increasing bandwidth while lower costs.