

California's Digital Divide

Justin Goss, Courtney Lee, Niu Gao

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➤ **Internet usage and broadband access are at all-time highs.**

In 2017, 90% of California households used the internet and 74% had broadband subscriptions at home—up from 82% and 70%, respectively, in 2013. Seventy-three percent of households in 2017 accessed the internet using a cell phone. Since 2013, growing shares of Californians use the internet for email, financial services, and job searches. The internet is also an important access point for health care, especially in rural areas facing shortages of physicians and mental health providers. In addition, for the first time, the federal government will collect responses to the 2020 Census online.

➤ **The digital divide persists across major demographic groups and in rural areas.**

Though most demographic groups have seen significant increases in broadband subscriptions at home, gaps persist for low-income, less educated, rural, African American, and Latino households. Between 54% and 67% of these households had broadband subscriptions in 2017, compared to 74% for all households. Among low-income households without broadband, 53% cited lack of interest and 25% cited affordability as key barriers. Notably, these households were more likely to rely on cellphones to access the internet.

➤ **With federal and state funding, K–12 schools have largely made the digital transition.**

Schools rely on the internet to deliver instruction, administer assessments, and manage educational data. The overwhelming majority (90%) of California schools met the Federal Communications Commission's (FCC) minimum threshold for digital learning in 2018, and 59% of schools met the FCC's long-term targets. Rural and high-need schools—in which more than half of students are low income, English Learners, or foster youth—were just as likely as other schools to meet those targets. Federal e-rate programs provided more than \$270 million to support affordable internet connectivity in California schools and libraries in 2018–19. The state provided additional support to schools through the California Teleconnect Fund (\$48 million in 2018–19).

➤ **Lack of internet access at home leaves underrepresented students further behind.**

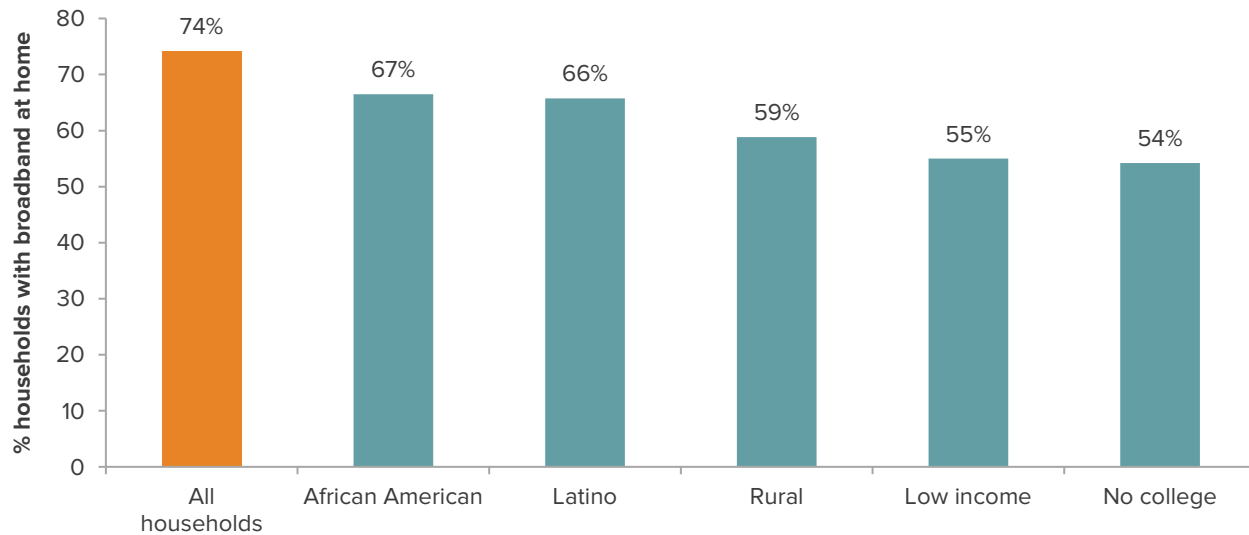
The FCC reports that nearly 70% of teachers assign homework that requires broadband access. Although the state has made progress closing the digital divide at schools, internet access at home is still a challenge: almost 16% of school-aged children (about 945,000) had no internet connection at home in 2017 and 27% (about 1.7 million) did not have broadband connections. Similar to overall trends, access varied significantly by family income, parental education, race/ethnicity, and geography. For example, 22% of low-income households with school-aged children did not have any internet connection at home, and 48% reported no broadband subscription at home. Nearly half (44%) of these households said cost was the main barrier.

➤ **Internet privacy and security are ongoing concerns.**

As internet usage grows, 59% of California households in 2017 said that identity theft is their greatest concern, followed by financial fraud (44%), data tracking by private companies (24%), loss of control over personal data (22%), data tracking by government (18%), and safety threats such as cyberbullying (12%). One in five households reported having been affected by an online security breach, identity theft, or similar crime. In recent years, the state has passed laws giving users more control over their personal information and increasing privacy protections for minors. Federal and state lawmakers are continuing to address several other privacy issues, including limits on data collection, access, and storage.



California's digital divide persists for several demographic groups



Source: American Community Survey, 2017.

Notes: In the American Community Survey, broadband specifically refers to those who said “yes” to “having high-speed internet services installed at home, such as cable, DSL or fiber-optic service.” The FCC instituted a speed benchmark for broadband of 25 mbps download and 3 mbps upload (25 mbps/3mbps) in its 2015 report. The California Public Utilities Commission has a different benchmark of 6 mbps/1.5 mbps, which was later amended to 6 mbps/1 mbps (AB 1665). When we model broadband access in a multivariate model that includes household characteristics and time trends, variables such as household income, race (with the exception of Asian/Pacific Islander), educational attainment, and geographic location, are significant predictors of broadband access. Race/ethnicity is based on the head of the household. The number of households or school-aged children without broadband subscription at home may represent a low estimate, as the American Community Survey excluded respondents (382,203 households) that accessed internet without paying the internet service provider.

Rural and high-need schools are as likely as other schools to meet digital infrastructure targets

	Overall	Urban	Rural	High need
% schools meeting FCC's minimum threshold	90%	86%	91%	91%
% schools meeting FCC's long-term target	59%	51%	67%	61%
% schools with all buildings covered by WiFi	58%	58%	60%	56%
% schools with one device per student	16%	15%	22%	18%

Sources: Connectivity data from DataLINK, K12 High Speed Network (2018). Student enrollment data from California Department of Education (2018). Geographic location from the National Center for Education Statistics (2014). WiFi coverage data from the Statewide Connectivity Needs Assessment Survey from the California Department of Education/K12 High-Speed Network (2015).

Notes: High-need schools are those in which more than 55% of students are low-income, English Learners, and/or foster youth. When we model connectivity in a multivariate model, geographic location and student enrollment are significant predictors. The FCC's minimum threshold for digital learning is 100 kbps per student; its long-term target is 1,000 kbps per student. Since 2015, the state has used a computer-based assessment (SBAC) for student testing, which requires a minimum bandwidth of 20 kbps per student, which nearly all schools have. Large urban districts may not need as much bandwidth for digital learning.

Sources: “Student Device and Secure Browser Requirements” (Smarter Balanced Assessment Consortium, 2019); *Broadband Deployment Report* (FCC, 2018). Rosenworcel, “Filling in the Homework Gap” (FCC, 2015); *Broadband Progress Report* (FCC, 2015); *Assembly Bill 1665* (California State Assembly, 2017); “California Teleconnect Fund Overview and Update” (California Public Utilities Commission, 2018).

Contact: goss@ppic.org, clee@ppic.org, gao@ppic.org

