



CONSEQUENCES • TECHNOLOGY

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IMPACT ON ALICE

What do families do if they don't have access to technology?

For many ALICE households, access to technology, or adequate technology, is not a given. These families may try to:

▼ Be a “Smartphone Only” Internet User

One in five Americans are “smartphone-only” internet users (i.e., they own a smartphone, but do not have broadband internet service at home). This smartphone dependency has grown over time, from 8 percent of adults in 2013 to 20 percent of adults by 2018.¹⁵

Smartphone dependency impacts access to and use of the internet:

- Smartphone-only users are more likely to use their phone during a job search; 63 percent used their smartphone for job information, compared to 43 percent of all users; 39 percent used their smartphone to submit a job application, compared to 18 percent of all users.¹⁶
- Smartphone-only users are also less likely than other smartphone owners to use phones for; online shopping (36 percent vs. 66 percent); online banking or bill-paying (49 percent vs. 74 percent); and viewing local news (70 percent vs. 82 percent).¹⁷
- For children in smartphone-only households, 35 percent use the internet to look up topics they are interested in, compared to 77 percent of children with home internet access.¹⁸

Smartphone-only users vary by demographic group and are more likely to be younger, lower-income, or Black or Hispanic adults (2018 data):¹⁹

- **Income level:** 31 percent of adults who made less than \$30,000 per year were smartphone dependent, compared with 9 percent of adults who made \$75,000 or more per year.
- **Race/ethnicity:** 35 percent of Hispanic adults and 24 percent of Black adults were smartphone-dependent compared with 14 percent of White adults.
- **Education:** 39 percent of adults with less than a high school education are smartphone-dependent, compared with 22 percent of high school graduates, and 10 percent of college graduates.

- **Rural/urban:** 22 percent of urban dwellers and 17 percent of rural and suburban residents are smartphone-dependent.



Consequences

Unreliable service: Gaps in cellular service and limited data are especially difficult for low-income and ALICE families who depend on smartphones for internet access. Outages, especially in rural areas, can prevent or delay the completion of important tasks. While public internet outside the home can help bridge the gap, this comes with its own inconveniences.²⁰ For example, 21 percent of teens in families with income below \$30,000 per year sometimes use public Wi-Fi to complete their homework when they don't have another connection.²¹ Public internet may not be available at all hours and is more prone to hacking and other information security issues.²²

Data storage and “small screen” issues: Although smartphone technology is constantly improving, many tasks are still more difficult to complete on the small screen of a smartphone as opposed to a computer (e.g., word processing, filling out applications, editing spreadsheets), and many websites still do not have a mobile version, making navigation time-consuming and difficult, or sometimes impossible.²³ In addition, affordable smartphones come with limited storage space and “cloud” storage sometimes comes at an additional cost, which might not be affordable for low-income and ALICE households.

Additional/unforeseen costs: Complex tasks that can be done on smartphones often require the use of mobile applications, many of which charge for full functionality. This means that low-income and ALICE households that are smartphone-dependent may be priced out of certain key online tools and functions. Nationwide, approximately one in three mobile users pay for mobile applications.²⁴

▼ Seek Discounted Service

There are federal and state-specific programs available to help low-income households pay for phone and internet service. For example, the Lifeline Program, which is the primary federal program, provides discounted phone and internet services for eligible low-income consumers in every U.S. state, territory, commonwealth, and on Tribal lands.²⁵

However, discounted programs are reaching very few eligible Americans: Only 6 percent of people with incomes below 185 percent of the Federal Poverty Level say they have signed up for a discounted service of any kind.²⁶ For the Lifeline Program in particular, only 28 percent of eligible households were enrolled in 2017 (ranging from 4 percent in Wyoming to 47 percent in Alaska).²⁷

In addition to subsidized plans, there are some relatively inexpensive cellphone plans available through a variety of providers (with monthly payments as low as \$10/month); however, these plans often require users to buy their own phones, which can add substantial cost.



Consequences

Accessibility issues: For most discounted phone/internet programs, the income eligibility threshold is significantly less than the ALICE Threshold. Difficulties with access are reflected in the low enrollment rates. Past studies of the program have cited stigma differences in state-to-state rollout, and difficulties with enrollment and proving eligibility as key factors in low enrollment.²⁸ In addition, the Lifeline Program provides assistance for phone or internet service, but not both, and if a subsidized service is not used within a 30-day period, it is automatically disconnected.²⁹

BUYING A SMARTPHONE IS EXPENSIVE

Because many ALICE families do not have sufficient credit scores to qualify for smartphone installment plans with the major carriers, they are forced to pay for their phones upfront or use expensive borrowing options.³²

Less reliable service: Low-cost plans and phones can save money, but often do not offer the same speed or coverage as higher cost plans. Some companies have limited coverage, offer only slow-speed data, and slow the data speed when the plan's data limit is exceeded.³⁰

Unforeseen costs: Low-cost and subsidized plans tend to be the most restrictive in terms of the amount of calls, texts, and data use they allow, and they often require users to buy their own phones. Special offers are short-lived and have hidden parameters that lead to more fees. Exceeding monthly data limitations, or not being able to pay on time can lead to additional costs and penalties. Having one's phone service cut off adds fees as well as limits communication for work and family. During the course of 2016, 29 percent of low-income Americans say they hit their data limit, and 24 percent said their phone service was discontinued due to lack of payment. The same is true of internet plans. In 2016, one in five people said that their internet service had been cut off in the last year due to lack of payment.³¹

▼ Use Public Internet

Ninety percent of people surveyed in 2016 said they have used public internet for a variety of reasons, including checking email (58 percent), accessing social media (56 percent), and online banking (22 percent).³³ Many Americans rely on public internet access, either in the form of shared computers at locations such as schools and libraries, or through use of their own devices (smartphones, computers, tablets) connected to free or paid public internet (hotspots).

In 2016, 29 percent of people reported visiting libraries to use computers or access Wi-Fi. The majority of people who use tech resources at a library do so for research for work or school (61 percent), followed by checking emails or texts (53 percent), looking for health information (38 percent), or taking an online class or certification (26 percent).³⁴

Twelve percent of teens say they at least sometimes use public Wi-Fi to complete assignments because they do not have an internet connection at home; this is more common among low-income students and teens of color.³⁵

PUBLIC INTERNET USE

The percentage of library patrons who use the computers or internet connections is higher among certain groups, such as people aged 16-29 (45 percent), Black people (42 percent), and people with annual incomes of \$30,000 or less per year (35 percent).³⁶



Consequences

Security risks and lack of privacy: Low-income technology users are more likely to be victims of predatory internet scams as they have more data exposed through public internet use and less knowledge on how to protect themselves against data malpractice. In addition, without means to purchase security software, they are more likely to encounter security breaches and identity theft.³⁷

Limited availability: Public internet access points may not always be available when needed due to limited hours of operation, especially for libraries and schools, which often close early; and overcrowding, which can impact internet speed at hotspots and cause lines for shared computers. Even when access points are open late, community safety issues may limit access.³⁸

Sources

¹⁵
Pew Research Center. (2019, June 12). *Mobile fact sheet*. Retrieved from <https://www.pewinternet.org/fact-sheet/mobile/>

¹⁶
Smith, A. (2015, April 1). *Chapter two: U.S. smartphone use in 2015*. Pew Research Center. Retrieved from <https://www.pewinternet.org/2015/04/01/chapter-two-usage-and-attitudes-toward-smartphones/#job%20seeking>

¹⁷
Smith, A. (2015, April 1). *Chapter two: U.S. smartphone use in 2015*. Pew Research Center. Retrieved from <https://www.pewinternet.org/2015/04/01/chapter-two-usage-and-attitudes-toward-smartphones/#job%20seeking>

18

Rideout, V., & Katz, V. (2016, Winter). Opportunity for all? Technology and learning in lower-income families. A report of the families and media project. The Joan Ganz Cooney Center at Sesame Workshop. Retrieved from http://joanganzcooneycenter.org/wp-content/uploads/2016/01/jqcc_opportunityforall.pdf

19

Pew Research Center. (2019, June 12). Mobile fact sheet. Retrieved from <https://www.pewinternet.org/fact-sheet/mobile/>
Ryan, C. (2018, August). Computer and internet use in the United States: 2016. American Community Survey Reports, U.S. Census Bureau. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2018/acs/ACS-39.pdf>

20

Anderson, M. (2018, September 10). About a quarter of rural Americans say access to high-speed internet is a major problem. Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2018/09/10/about-a-quarter-of-rural-americans-say-access-to-high-speed-internet-is-a-major-problem/>

21

Anderson, M., & Perrin, A. (2018, October 26). Nearly one-in-five teens can't always finish their homework because of the digital divide. Retrieved from <https://www.pewresearch.org/fact-tank/2018/10/26/nearly-one-in-five-teens-cant-always-finish-their-homework-because-of-the-digital-divide/>

22

Bencie, L. (2017, May 3). Why you really need to stop using public Wi-Fi. Harvard Business Review. Retrieved from <https://hbr.org/2017/05/why-you-really-need-to-stop-using-public-wi-fi>

23

Adepu, S., & Adler, R. F. (2016, October). A comparison of performance and preference on mobile devices vs. desktop computers. 2016 IEEE 7th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), 1–7. Retrieved from <https://ieeexplore.ieee.org/document/7777808>

24

eMarketer. (2015, February 5). Only 33% of US mobile users will pay for apps this year. Retrieved from <https://www.emarketer.com/Article/Only-33-of-US-Mobile-Users-Will-Pay-Apps-This-Year/1011965>

25

Federal Communications Commission. (2019). Lifeline program for low-income consumers. Retrieved from <https://www.fcc.gov/general/lifeline-program-low-income-consumers>

26

Rideout, V., & Katz, V. (2016, Winter). Opportunity for all? Technology and learning in lower-income families. A report of the families and media project. The Joan Ganz Cooney Center at Sesame Workshop. Retrieved from http://joanganzcooneycenter.org/wp-content/uploads/2016/01/jqcc_opportunityforall.pdf

27

Universal Service Administrative Co. (2019). Lifeline participation. Retrieved from <https://www.usac.org/li/about/process-overview/stats/participation.aspx>

28

Burton, M., & Mayo, J. W. (2005, March). Understanding participation in social programs: Why don't households pick up the lifeline? McDonough School of Business. Retrieved from https://bear.warrington.ufl.edu/centers/purc/docs/papers/LIFELINE/0206/0305_Burton_Mayo_Understanding_Participation_in.pdf

29

Universal Service Administrative Co. (2019). Lifeline: Get connected. Retrieved from <https://www.lifelinesupport.org/ls/default.aspx>

30

Consumer Reports. (2019, May 23). Best low-cost cell-phone plans. B. Fowler, Author. Retrieved from <https://www.consumerreports.org/u-s-cell-phone-carriers/best-cell-phone-plans-save-money/>

Consumer Reports. (2018, May 26). How to save money with a cheap cell-phone service. B. Fowler, Author. Retrieved from <https://www.consumerreports.org/smartphones/how-to-save-money-with-cheap-cell-phone-service/>

31

Rideout, V., & Katz, V. (2016, Winter). Opportunity for all? Technology and learning in lower-income families. A report of the families and media project. The Joan Ganz Cooney Center at Sesame Workshop. Retrieved from http://joanganzcooneycenter.org/wp-content/uploads/2016/01/jqcc_opportunityforall.pdf

Consumer Reports. (2019, May 23). Best low-cost cell-phone plans. B. Fowler, Author. Retrieved from <https://www.consumerreports.org/u-s-cell-phone-carriers/best-cell-phone-plans-save-money/>

Consumer Reports. (2018, May 26). How to save money with a cheap cell-phone service. B. Fowler, Author. Retrieved from <https://www.consumerreports.org/smartphones/how-to-save-money-with-cheap-cell-phone-service/>

32

Consumer Reports. (2019, March 8). Best deals on the Samsung Galaxy S10, S10+, and S10e. B. Fowler, Author. Retrieved from <https://www.consumerreports.org/smartphones/best-deals-on-samsung-galaxy-s10-smartphone/>

33

Pew Research Center. (2019, June 12). Mobile fact sheet. Retrieved from <https://www.pewinternet.org/fact-sheet/mobile/>

34

Horrigan, J. B. (2016, September 9). 2. Library usage and engagement. Pew Research Center. Retrieved from <https://www.pewinternet.org/2016/09/09/library-usage-and-engagement/>

35

Anderson, M., & Perrin, A. (2018, October 26). Nearly one-in-five teens can't always finish their homework because of the digital divide. Retrieved from <https://www.pewresearch.org/fact-tank/2018/10/26/nearly-one-in-five-teens-cant-always-finish-their-homework-because-of-the-digital-divide/>

36

Horrigan, J. B. (2016, September 9). 2. Library usage and engagement. Pew Research Center. Retrieved from <https://www.pewinternet.org/2016/09/09/library-usage-and-engagement/>

37

Pew Research Center. (2019, June 12). Mobile fact sheet. Retrieved from <https://www.pewinternet.org/fact-sheet/mobile/>

Bencie, L. (2017, May 3). Why you really need to stop using public Wi-Fi. Harvard Business Review. Retrieved from <https://hbr.org/2017/05/why-you-really-need-to-stop-using-public-wi-fi>

Madden, M., Gilman, M., Levy, K., & Marwick, A. (2017). Privacy, poverty, and big data: A matrix of vulnerabilities for poor Americans. *Washington University Law Review*, 95(1), 53–125. Retrieved from https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=6265&context=law_lawreview

Internet Essentials From Comcast. (n.d.). Online safety and security. Retrieved from <https://internetessentials.com/en/learning/OnlineSafetyandSecurity>

Gilman, M. E. (2012). The class differential in privacy law. *Brooklyn Law Review*, 77(4), 1389–1445. Retrieved from <https://brooklynworks.brooklaw.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1140&context=blr>

38

Pew Research Center. (2014, July 9). Public libraries and technology: From “houses of knowledge” to “houses of access.” Retrieved from <https://www.pewinternet.org/2014/07/09/public-libraries-and-technology-from-houses-of-knowledge-to-houses-of-access/>



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