## THE HOMEWORK GAP



More than 1 in 10 school-age children lack any kind of internet at home. In what has come to be known as the "homework gap," students without internet at home have more difficulty completing school work than their connected peers. Rural areas, which already lag behind in connectivity, face even greater difficulty. As the internet takes hold inside and outside the classroom, some students are being left behind.

## INTERNE USE INEDCACATON

Using the internet has become standard in most schools, and the prevalence of online tools in curriculum increases with education level. From middle school onward, students are usually expected to work online, both in class and at home.
> 75 percent of students nationwide are in a school where each student has at least one internet-enabled device to use. Most schools have already invested in the infrastructure needed to allow internet usage in the curriculum. ${ }^{1}$
> More than 3 million Americans are pursuing a college degree completely online through distance education. ${ }^{2}$


In Nebraska, 21 percent of teachers assign more than half of their homework online. ${ }^{3}$

## Sources

[^0]While the number of devices available to students is increasing, they are of little use without home internet access. Students nationwide continue to struggle getting online at home. Low income, minority, and rural Americans fall even further behind.

In Nebraska
> One in five Nebraska teachers estimate more than 30 percent of their students lack home internet access. ${ }^{4}$
> More than 500,000 Nebraskans-30 percent of households-lack a preferred wired internet subscription, such as fiber, DSL, or cable. ${ }^{5}$
) Wired connections are preferred because they are more reliable, provide faster speeds, and are generally less expensive to the consumer.
) Half of those households-an estimated 250,000 people-have no home broadband whatsoever.
> While 89 percent of all Nebraskans have access to broadband speeds of 25 megabits per second (Mbps) down and 3 Mbps up, only 63 percent of rural Nebraskans have this access. ${ }^{6}$

## Nationwide

> 12 percent of children aged 3 to 18 have no computer internet access at home. ${ }^{7}$
> Lower income students are more likely to rely on a mobile data plan for internet access as opposed to a wired service installed at home. ${ }^{8}$
> While 14 percent of students in metropolitan areas lack internet access, 18 percent of students outside those areas lack access. ${ }^{9}$
$>17$ percent of 7 th to 12 th graders are often or sometimes unable to complete an assignment because they lack a reliable connection. ${ }^{10}$
$>35$ percent of 7 th to 12 th graders often or sometimes have to complete homework on a cell phone. ${ }^{11}$

## IMPACT ON CLASSROOMS

Nearly half of Nebraska teachers agree that because some students lack home internet, homework for the entire class is affected.
> 90 percent of Nebraska teachers report offering accommodations for students who lack access at home.
> The most common accommodations are increasing in-class work time, providing paper material for those students, and providing time before and after school for assignments.

## Sources

4 "Nebraska Homework Gap Survey: Summary Report." Office of Data, Research, and Evaluation, Nebraska Department of Education, Aug. 22, 2019, ruralbroadband nebraska.gov/reports/2019/RBTF2019appendix10.pdf. Accessed June 2020.
5 "American Community Survey (ACS)." U.S. Census Bureau, census.gov/ programs-surveys/acs. Accessed June 2020.
6 "Findings and Recommendations." Nebraska's Rural Broadband Task Force, State of Nebraska, October 2019, ruralbroadband.nebraska.gov/reports/2019/ RBTF2019Reportfinal.pdf. Accessed June 2020.
7 Hussar, Bill, et al. "The Condition of Education 2020." National Center for Education Statistics at Institute of Education Sciences, U.S. Department of Education, May 2020, nces.ed.gov/pubs2020/2020144.pdf. Accessed June 2020.

[^1]> Due to a lower population density, the cost for installing broadband infrastructure can be too expensive for private internet service providers.
> Income disparity furthers the problem. While households in mostly urban counties have a median income of $\$ 60,000$, those in mostly or completely rural counties make $\$ 47,000$ and $\$ 44,000$ on average, respectively. ${ }^{12}$
> The mapping information used to disperse state and federal funds is inaccurate, falsely claiming residents in many rural areas have access to broadband. ${ }^{13}$
$>$ Other rural traits decrease alternative internet viability.
> Remote or hilly areas do not reliably receive cellular or fixed wireless signals.
> Very small communities often lack appropriate spaces for public internet access such as a library or coffee shop.

Students, teachers, and schools have a variety of options for dealing with the lack of home internet. Efforts to expand public access help many students connect. However, many current solutions are expensive, limited to certain areas, or face other obstacles. When that is not enough, teachers are forced to consider changing their classroom.


Mobile hotspots overcome the need for a wired connection but are often expensive, slow, and do not reach all areas.

Public spaces, such as coffee shops and libraries, offer free internet in a space that students can access during certain hours of the day. Students can also connect after hours from near the building.

School districts have installed wi-fi on school buses. In some instances, they will park buses in public areas for use after hours.

## SOLUTIONS



To get students online quickly, targeting resources to areas that need it most is the first step. Policy changes could include:
> Supplementing Federal Communications Commission data collection by developing a statewide outreach plan, such as the one proposed in Nebraska Legislative Bill 996, to gather and verify data concerning the availability, speed, and location of broadband services.
$>$ Allocating resources to areas where evidence suggests the federal broadband data may be inaccurate.


Public-private partnerships can be effective for many communities where the risk is too high for private companies to invest in expensive infrastructure. Examples of local actions include:
$>$ Leveraging local economic development funds to incentivize broadband buildout to underserved areas.
$>$ Creating or opening public infrastructure such as water towers or conduit lines for use by internet service providers.

[^2]
[^0]:     nces.ed.gov/pubs2020/2020144.pdf. Accessed June 2020.
     reports/2019/RBTF2019appendix10.pdf. Accessed June 2020.
    3 Maylahn, Paula. "CoSN's 2018-2019 Annual Infrastructure Report." Consortium for School Networking, American Association of School Administrators, MDR, Forecast5 Analytics, cosn.org/sites/default/files/CoSNs\%202018\%202019\%20Annual\%20Infrastructure\%20Survey\%20Report\%20final_0.pdf. Accessed June 2020.

[^1]:    8 Ibid.
    9 McFarland, Joel, et al. "The Condition of Education 2019." National Center for Education Statistics at Institute of Education Sciences, U.S. Department of Education, May 2019, nces.ed.gov/pubs2019/2019144.pdf. Accessed June 2020.
    10 Auxier, Brooke, et al. "As schools close due to the coronavirus, some U.S. students face a digital 'homework gap." Pew Research Center, March 16, 2020, pewresearch.org/ fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/. Accessed June 2020.
    11 Ibid.

[^2]:    Sources
    12 "American Community Survey (ACS)." U.S. Census Bureau, census.gov/programs-surveys/acs. Accessed June 2020.
    13 Johnathan Hladik. "Map to Prosperity." Center for Rural Affairs, October 2018, cfra.org/publications/MapToProsperity. Accessed June 2020.

