

# Broadband and Student Performance Gaps After the COVID-19 Pandemic



Hampton, K. N., Hales, G.E., & Bauer, J. M. (2023). Broadband and Student Performance Gaps After the COVID-19 Pandemic. James H. and Mary B. Quello Center, Michigan State University. <https://doi.org/10.25335/r71b-c922>

## The Quello Center at Michigan State University studied the consequences of the COVID-19 pandemic for students in rural Michigan.

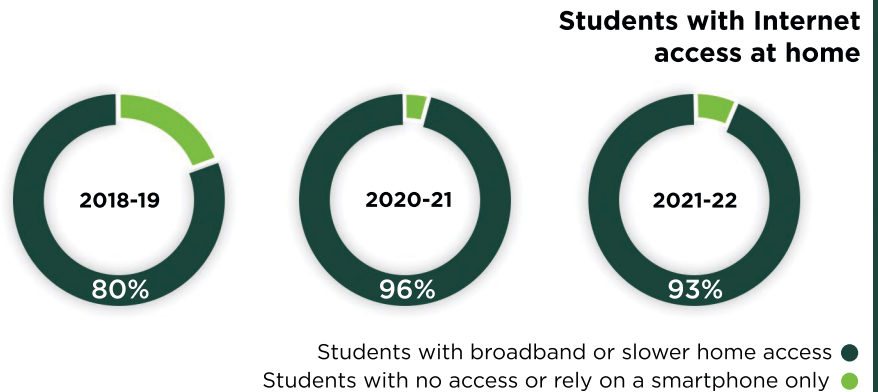
An inadequate infrastructure for broadband access left rural Americans at high risk for negative academic and social outcomes over the COVID-19 pandemic.

Researchers surveyed students from rural Michigan school districts before and after the COVID-19 pandemic. Schools quickly accessed state and federal resources to close gaps in rural Internet access and computing devices. However, pandemic gains in home Internet access for rural students are fading.

### Gap in rural Internet access shrunk, but is growing again.

Number of students with home broadband increased by 20% since the start of the pandemic. But the increase in home Internet access was primarily the result of Wi-Fi hotspots provided by schools.

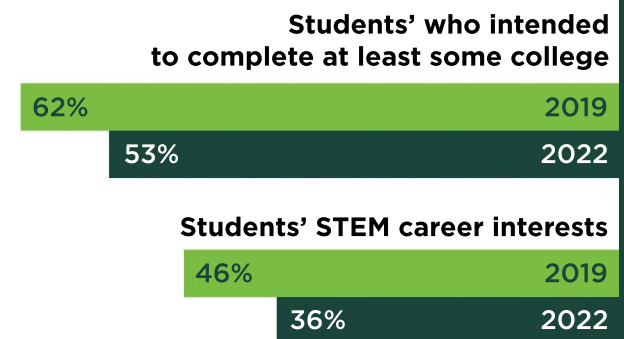
With declining resources, fewer rural students now have home Internet than during the pandemic.



### Sharp decline in interest in college and STEM careers.

There has been a dramatic decline in intent to pursue higher education and careers in science, technology, engineering, or math (STEM).

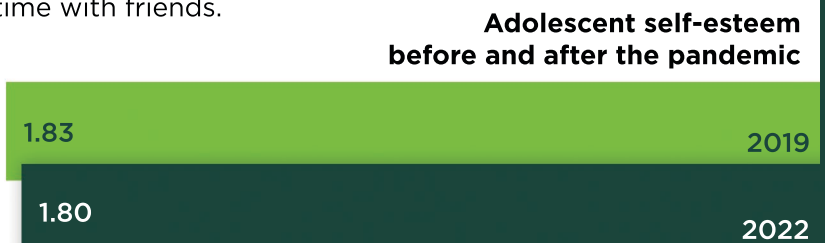
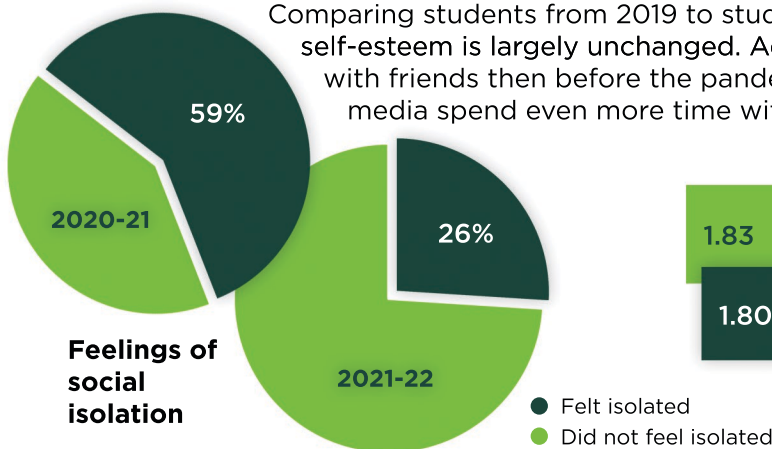
Students who spent more time learning from home are more interested in college and STEM careers than their peers.



### Widespread feelings of isolation over the COVID-19 pandemic, but adolescent self-esteem has returned to pre-pandemic levels.

A majority of students reported that they often or occasionally felt isolated at the height of the pandemic (2020-21 school year). By the end of the following school year, only one-quarter of students continued to feel isolated from their peers.

Comparing students from 2019 to students from the same schools in 2022, average self-esteem is largely unchanged. Adolescents report spending more time in person with friends than before the pandemic. Those who spend more time on social media spend even more time with friends.



Self-esteem measured on a scale, averaged across eight questions, ranging from 0-3.