

The Quello Center at Michigan State University, in partnership with Merit Network and M-Lab studied the consequences of poor and absent home broadband access for the academic achievement of students in rural Michigan school districts. Many students in rural areas do not have Internet or depend on cell phones for Internet access because they live in small towns, rural areas, and on farms that do not have

an infrastructure for broadband. The aim of this study, started in 2019, was to understand how home Internet access is related to students' grades, digital skills, homework completion, standardized test scores, interest in post-secondary education, and career goals. **Lack of broadband and dependence on cell phones only for home Internet is leaving rural Michigan students behind.**

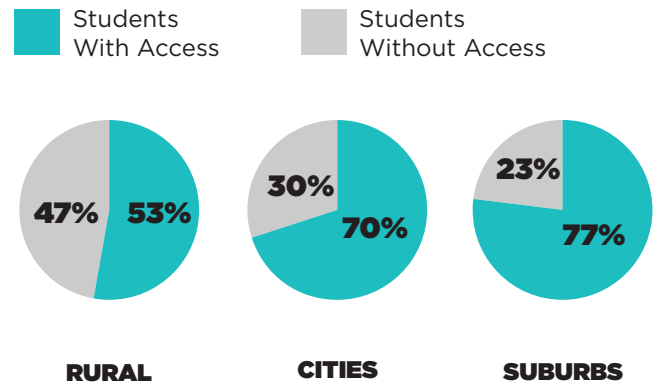
Students with poor or no Internet access have lower overall GPAs, fewer digital skills and are less likely to plan to enroll in postsecondary education.

Hampton, K. N., Fernandez, L., Robinson, C. T., & Bauer, J. M. Broadband and Student Performance Gaps. James H. and Mary B. Quello Center, Michigan State University. <https://doi.org/10.25335/BZGY-3V91>

Who Has Access?

Rural students and low-income students are less likely to have high-speed Internet access at home.

High-speed home Internet access is less common in rural areas, because rural areas are less likely to have an infrastructure to provide broadband Internet access. Students who lack home Internet access are more likely to be rural, low-income, and children of parents who do not have a university degree.



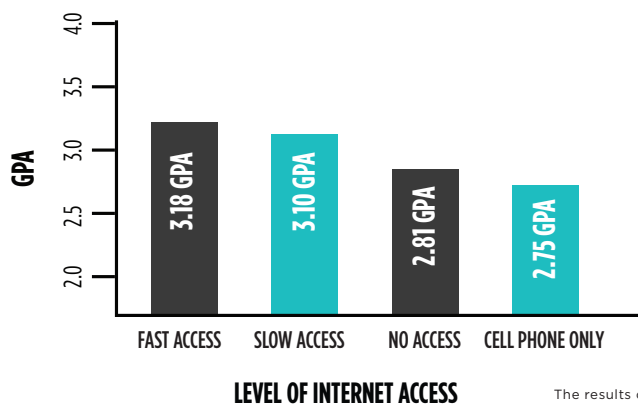
What Are the Current Implications?

Students without home Internet access have lower overall GPAs - on average half a letter grade lower.

Students with Internet access and better home Internet have more digital skills, and students with more digital skills score higher on the SAT and PSAT.

Students who depend on a cell phone for Internet access from home **do as poorly or worse than students with no Internet.**

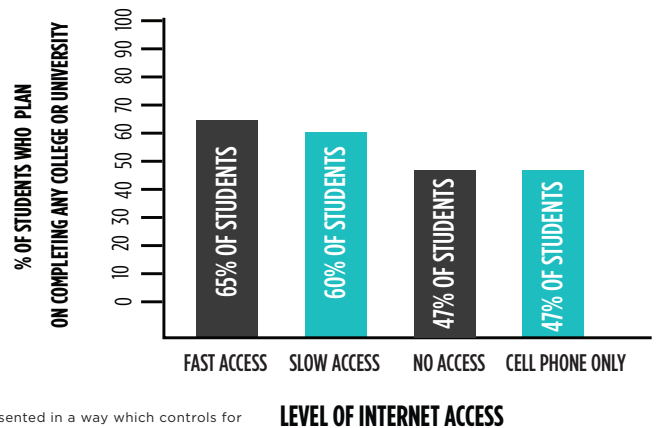
Dependence on a cell phone means smaller screens, slower speeds, access to content with fewer features, and potential data caps.



What Are the Future Implications?

Internet access impacts the intention of students to attain postsecondary education.

Students who do not have high-speed Internet access at home, and those with fewer digital skills, are less likely to have an interest in attending college or university.



The results of this study are presented in a way which controls for the influence of sociodemographic factors, when appropriate.