

Wi-Fi on Campus: Student Experiences Vs. IT Perceptions



The Center for Digital Education (CDE) recently conducted two surveys — one of higher education decision-makers and one of students — to better understand college students’ habits and needs regarding network use and technology. The surveys found that technology, and particularly Wi-Fi, is not only a factor in students’ decisions about where to attend school, but that they want to see reliable Wi-Fi on campus to enhance their experience. In addition, even though higher education leaders recognize the importance of technology, fairly large disparities exist between students and leadership on topics such as device usage, primary connectivity locations and Wi-Fi reliability. These disparities raise an interesting question: How can higher education leaders better meet student needs and improve the overall campus experience with technology?

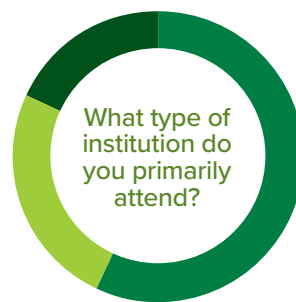
Respondent Demographics

CDE surveyed 102 higher education leaders and 514 college students in March 2019. The following data shows respondent demographics by type of institution, student population and role.



HIGHER EDUCATION LEADERS

- 38%** Private college or university
- 34%** Public university or 4-year college (including system administration office)
- 29%** Community college or vocational school (including system administration office)



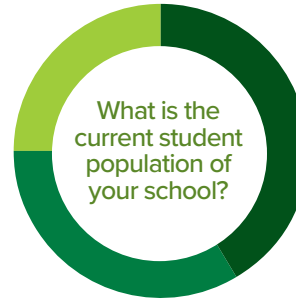
STUDENTS

- 18%** Private college or university
- 57%** Public university or 4-year college
- 25%** Community college or vocational school



HIGHER EDUCATION LEADERS

- 40%** Administrative staff or leadership, non-IT function
- 34%** IT support staff
- 15%** IT leadership
- 12%** IT supervisory/managerial



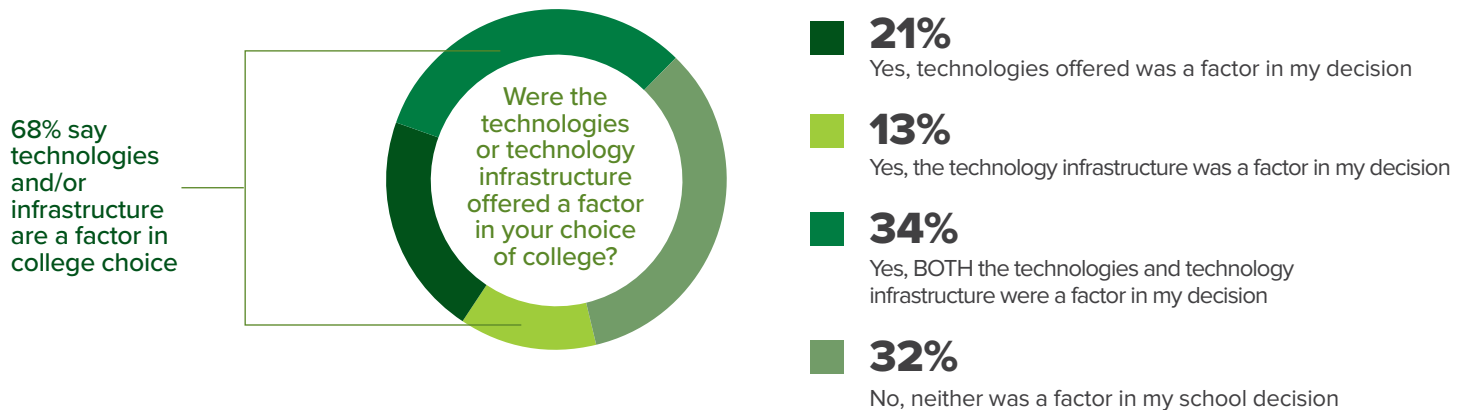
HIGHER EDUCATION LEADERS

- 42%** 12,001 or more
- 34%** 4,001-12,000
- 25%** 4,000 or fewer

Some graphs total more than 100 percent due to rounding.

Technology Impacts College Choice

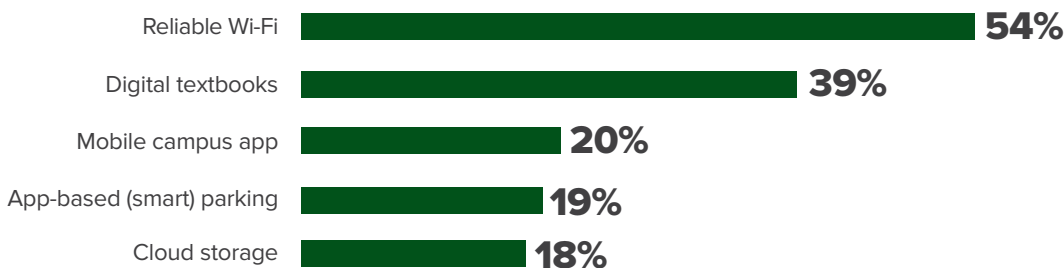
While class offerings, reputation and cost rank high on the list of factors influencing their decision of which college to attend, 68 percent of students said technologies and/or technology infrastructure (such as Wi-Fi availability) were also factors. Students and higher education leaders were aligned here, with 85 percent of higher education leaders saying technology can be used to attract and retain students. It is clear higher education institutions will need to ensure they have the technology and infrastructure in place to attract and retain digital-native learners in a constantly evolving education environment.



Wi-Fi is Critical to the Campus Experience

When asked what technology they would like their institution to provide to enhance the campus experience, students' top choice was reliable Wi-Fi. To meet these needs, enable learning anywhere and compete with other campuses, institutions will increasingly need to ensure their Wi-Fi is reliable and always-on.

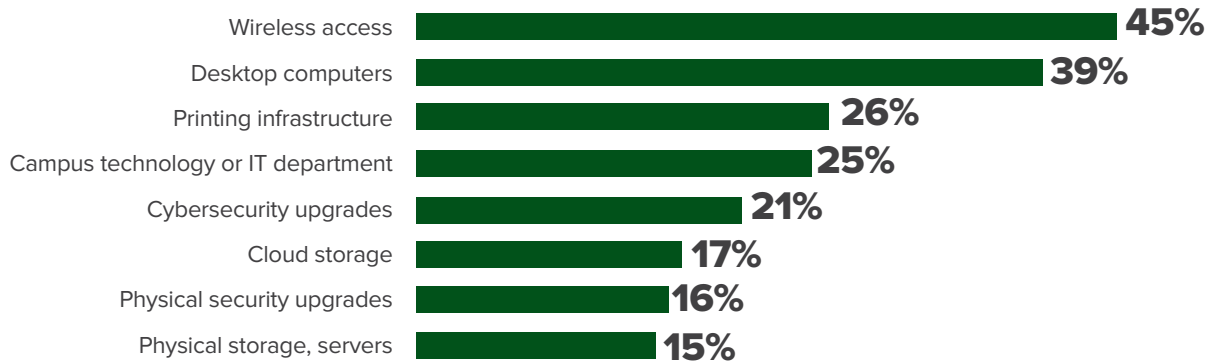
Top 5 Technologies Students Think Will Enhance Their Experience on Campus



Wi-Fi on Campus Still Needs Improvement

Due to its impact on the campus experience, it's not surprising Wi-Fi is also the top resource students say needs upgrading. This is an easy win for higher education leaders. Providing consistent wireless access across campus is something students will immediately notice. It will also help improve their overall perceptions while on campus. After adequate wireless connectivity is in place, campus leaders can focus on new and innovative ways to enhance school activities and services that will allow students to go above and beyond the status quo.

Tools and Resources Students Think Need Improvement on Campus



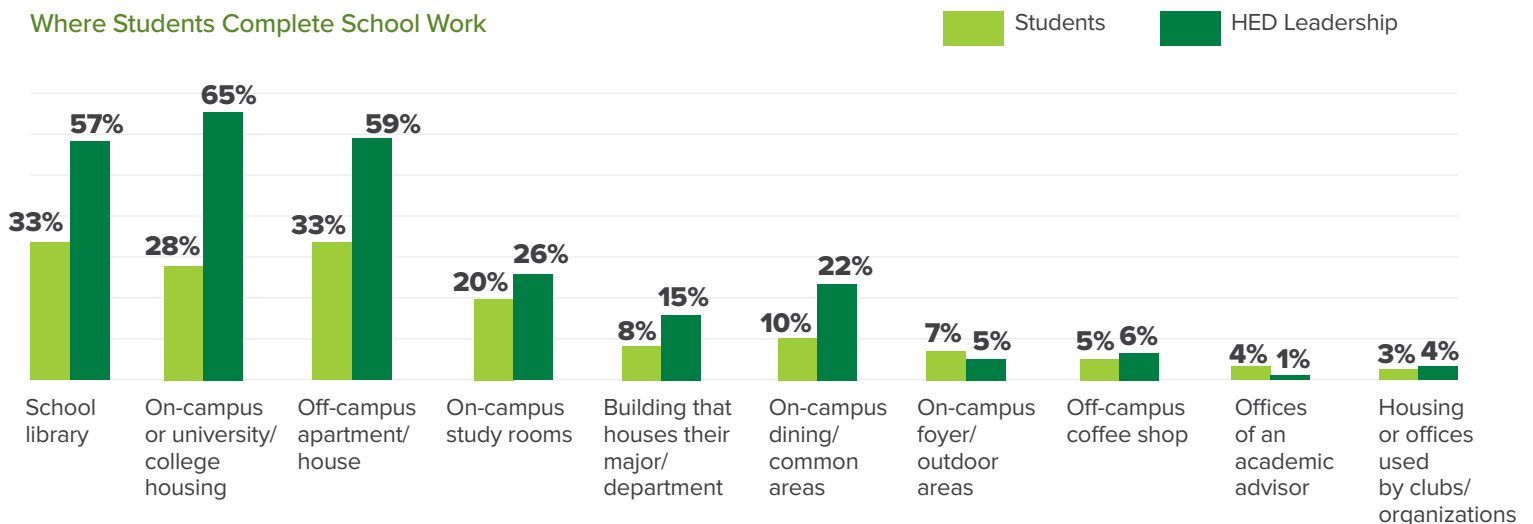
Misaligned Wireless Reliability Perceptions: Leadership Thinks Students Use Wi-Fi and Complete Work in More Places Than They Actually Do

Leadership tends to overestimate the amount of places students complete their school work. The top four places where students complete work are the school library, off-campus housing, student housing and on-campus study rooms. When results were broken down further, the data shows that university students are more likely to complete work on campus, whereas community college students tend to complete work off campus.

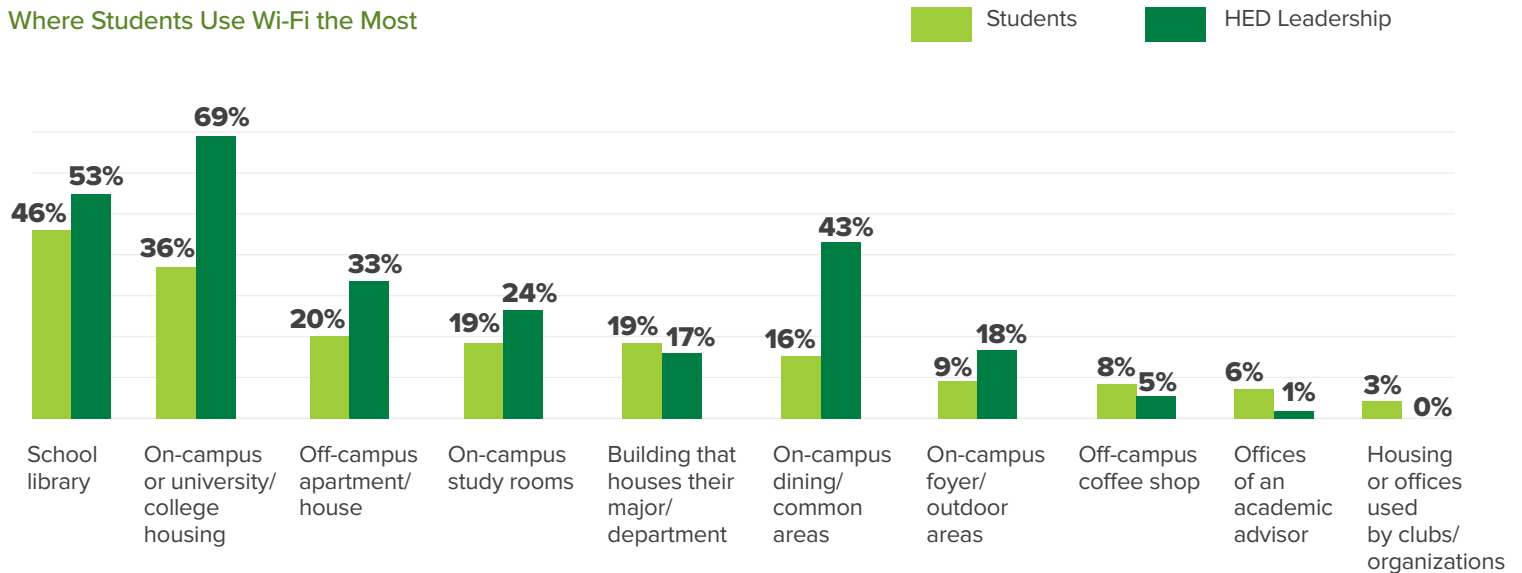
While leadership also chose these four locations, the percentages of leadership choosing them was much higher than it was for students. On-campus dining/common areas and buildings that house majors/departments also ranked higher for leaders, but relatively few students said they complete their assignments in these areas.

Similarly, leadership overestimates where students use Wi-Fi. Students use Wi-Fi the most in the same locations where they do work, with the library being the most frequently used location for Wi-Fi access. Leadership believes 43 percent of students use Wi-Fi in on-campus dining/common areas; in fact, only 16 percent of students said they use it in these places.

Where Students Complete School Work



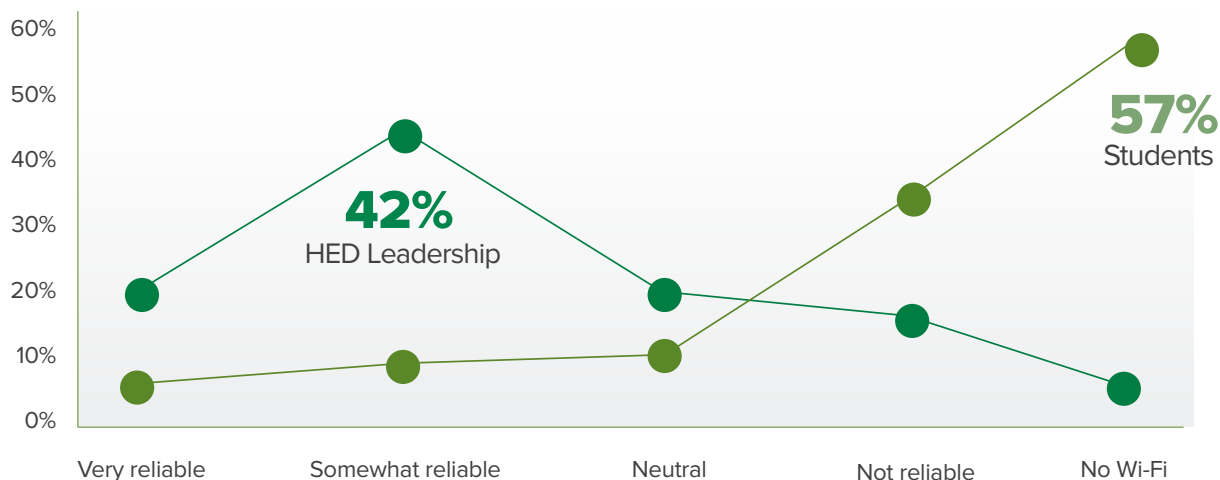
Where Students Use Wi-Fi the Most



Leadership thinks Wi-Fi is far more reliable in libraries, dorms and other areas than students do. Sixty-nine percent of leadership think it's highly reliable in the library, while only 45 percent of students think so; and 40 percent of leadership versus 22 percent of students think it's highly reliable in dorms. Similar discrepancies exist when it comes to classrooms and common areas. One of the biggest misalignments appears in outdoor areas: 42 percent of leadership think Wi-Fi is somewhat reliable outdoors, while 57 percent of students say there is no outdoor Wi-Fi.

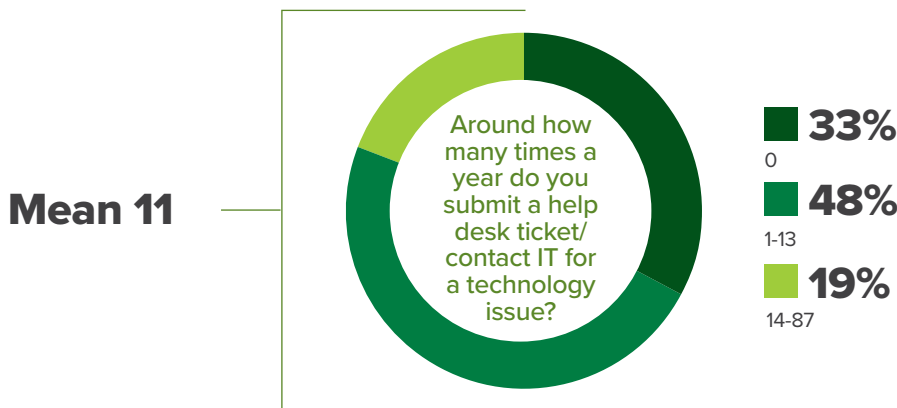
Leadership believes students are completing classwork and therefore using Wi-Fi everywhere across campus, but the reality is that students aren't — likely because the Wi-Fi is unreliable. By improving access throughout campus, students can complete their assignments where it best maximizes their time and productivity. Institutions that provide ubiquitous access will help students make every spare minute count. Knowing where students work and use Wi-Fi will help leadership plan for high-density deployments where students are congregating and will extend the reach of Wi-Fi where it is needed.

Perceptions of Wi-Fi Reliability in Campus Outdoor Areas



Lack of Wi-Fi Availability Generates the Most Frequent Complaints

Both students (45 percent) and leadership (48 percent) identified wireless access as the top technology resource needing improvement on campus. Lack of Wi-Fi access generates the most student complaints compared to other issues. Students say they make, on average, 11 help desk requests for a technology issue per year. When the average number of help desk requests per student is multiplied by the number of students attending an institution, the request volume for Wi-Fi alone can skyrocket. Anything campuses can do to simplify Wi-Fi and make it more reliable is going to lower costs and increase efficiencies. It will also reduce students' frustration and help them maximize their time.



Student Device/Technology Usage Varies According to Commuter/Non-Commuter Status – and a Robust Network is Needed for Both

Forty-three percent of student survey respondents live on campus (non-commuters) and 57 percent of students live off campus (commuters), which has an impact on the number of devices they bring to campus. Fifty percent of non-commuters bring five or more devices with them to campus, while only 12 percent of commuters bring that many devices (average for non-commuters was nine devices, while it was four devices for commuters).

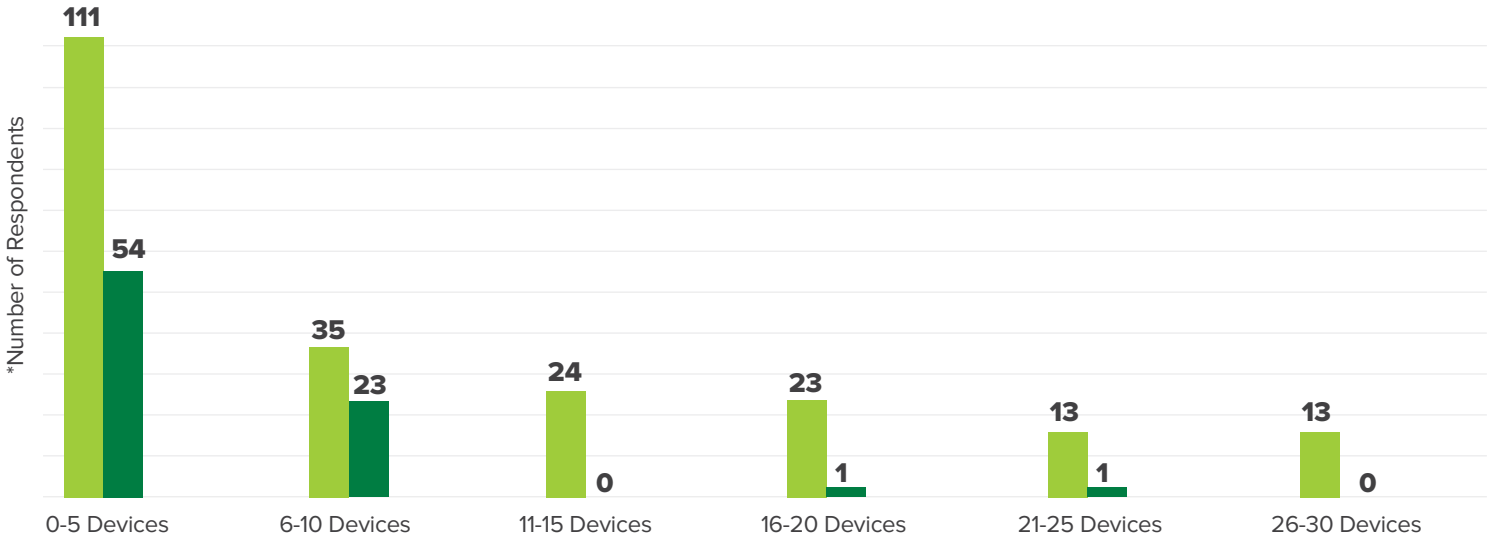
Leadership estimates for the number of devices brought to campus by commuters was aligned, but for non-commuters, it was vastly underestimated. When asked about the types of devices brought to campus by both non-commuters and commuters, leadership estimates often varied greatly from what students reported.

The top three devices brought by non-commuters are laptops (81 percent), smartphones (79 percent) and desktops (43 percent). Commuter students bring laptops (91 percent) and smartphones (75 percent) almost exclusively. Leadership greatly underestimates the number of desktops brought by students who live on campus, and they overestimated the number of tablets, video game consoles, smart watches and smart TVs brought by both non-commuters and commuters.

With the overwhelming number of smartphones, laptops and desktops on campus, leaders need to ensure the network is prepared for the high-density and high-throughput requirements of these bandwidth-hungry devices. Given the percentage of non-commuter students using desktop computers, organizations should not forget that a wired connection is just as important in the dorms as a wireless connection. While leaders are currently overestimating the types of devices students are bringing to campus, their outlook is actually a positive one. Students will likely start bringing all of the devices leadership expects in the next few years, and having a network that is ready to take on that load is extremely important. This forward-looking mindset will only help leaders in the future.

Number of Devices Brought to Campus by Resident Students

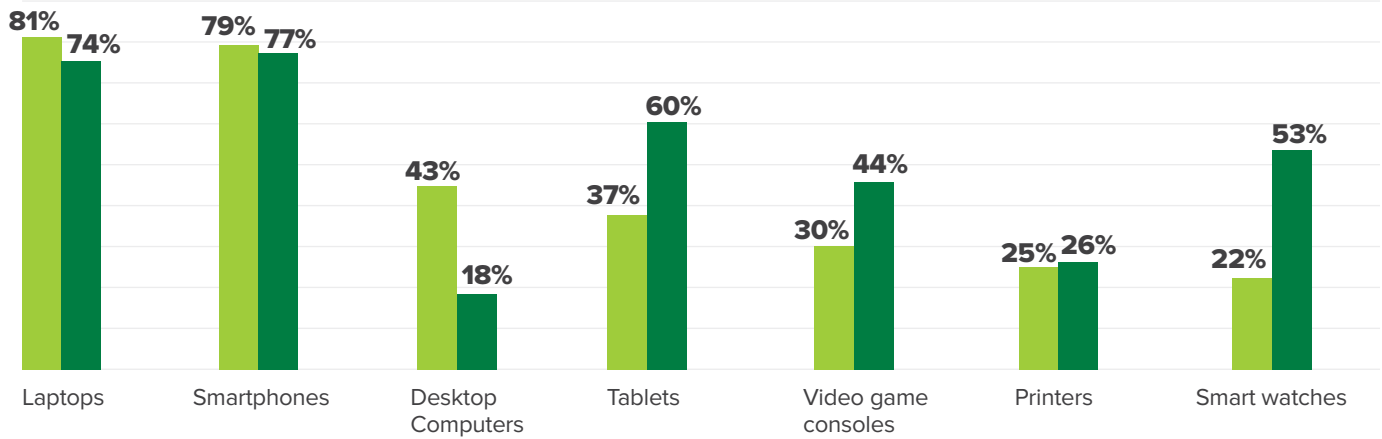
Students HED Leadership



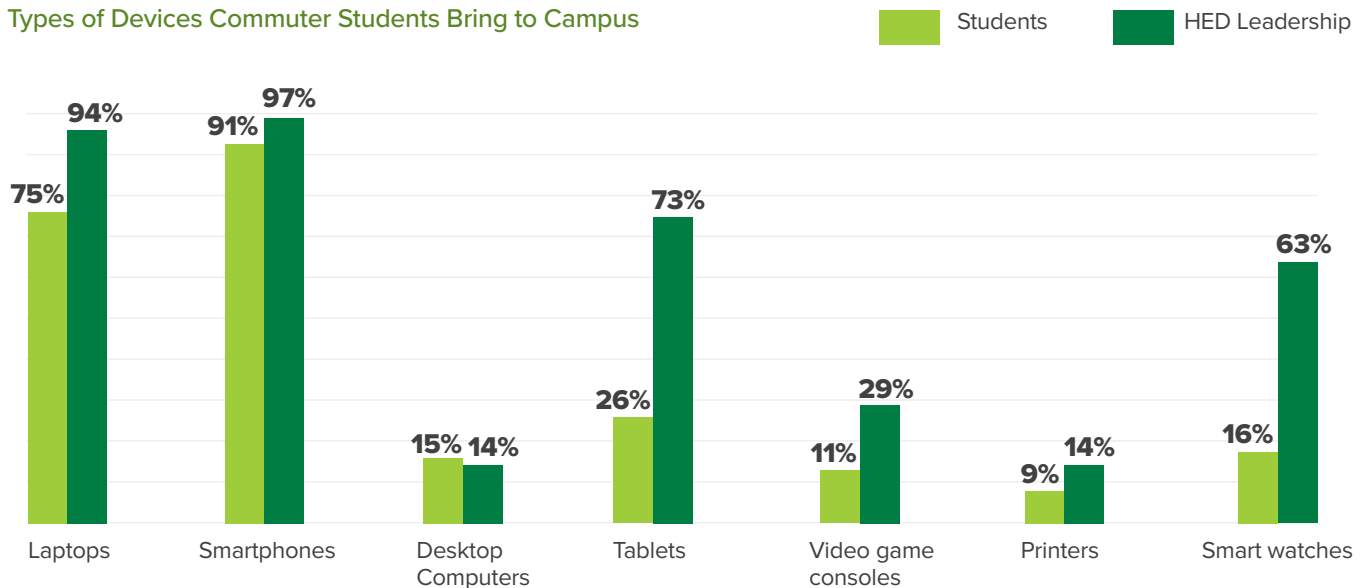
*Total number of student responses for this question was 219. Total number of leadership responses was 79.

Types of Devices Non-Commuter Students Bring to Campus

Students HED Leadership



Types of Devices Commuter Students Bring to Campus



Conclusion

Technology and networking infrastructure are important considerations when students are choosing which school to attend, yet most students don't think the Wi-Fi on campus is up to par. Higher education leaders tend to overestimate the reliability of their Wi-Fi networks, which is shown by the fact that students aren't accessing Wi-Fi in as many places as leadership thinks they are. Therefore, most students don't have the freedom to collaborate and study where they want, and are instead tethered to the library and their homes. While reliable Wi-Fi is important to students' experience, institutions with students living on campus cannot overlook the necessity of a wired connection in the dorms as well, since non-commuter students still rely heavily on desktop computers.

Campuses that implement robust, easy-to-manage wired and wireless networks will meet students' needs and expectations inside and outside the classroom. State-of-the-art networks provide the bandwidth, reliability and scalability required for online learning, collaboration, crowdsourcing of collective intelligence, analyzing data and immersive learning experiences. In addition, they allow institutions to securely extend learning beyond the classroom so students can be as productive, engaged and successful as possible whenever they're on campus. In doing so, they can help institutions maintain a strong reputation, recruit students and attract funding — all while providing a 21st-century campus experience.

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