



NORTH CAROLINA
State Board of Education
Department of Public Instruction

Report to the North Carolina General Assembly

Report to the NC General Assembly:
Statewide Trends in Student Digital
Learning Access

§ G.S. 115C-102.9(c)

Date Due: February 15, 2025

STATE BOARD OF EDUCATION

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INTRODUCTION

The Statewide Trends in Digital Learning Report provides an overview of the current digital learning landscape within North Carolina Public School Units (PSUs). This report highlights the status of home connectivity and home access to computing devices as reported by PSUs. The Digital Learning Dashboard data may be viewed at:

go.ncdpi.gov/DigitalLearningDashboard.

Each year, PSUs submit data to the Student Digital Learning and NC Digital Learning Media Inventory Surveys. In 2023, the NC Digital Learning and Media Inventory (NCDLMI) and the Student Digital Learning Survey to collect specific digital learning metrics on educators, students, and school infrastructure in accordance with § G.S. 115C- 102.9(c). G. S. § 115C102.9. Digital learning dashboard requires that the State Board of Education shall establish and maintain an electronic dashboard to publicly display information related to digital learning. Each public-school unit shall annually submit all categories of information included in the digital learning dashboard to DPI. The State Board shall include in the dashboard, at a minimum, the following categories of information to be reported:

1. In School Digital Device Access, Student Access: Number and percentage of students with access to digital devices within schools, disaggregated by PSU, school, and grade level.
 - Device Source: Whether devices are provided by the PSU or come from students' homes.
 - Device Type: Specifications on the types of devices used.
2. Out-of-school digital device access, including the following information disaggregated by public school unit, school, and grade level:
 - Number and percentage of students with access to digital devices outside of the school.
 - Source of digital devices, such as the public-school unit, the student's home, or both.
 - Type of device.
 - For homes with no devices, reason for lack of devices.
3. Out-of-school internet connectivity, including the following information disaggregated by public school unit, school, and grade level:
 - Number and percentage of students with internet connectivity outside of the school available by the following categories:
 - Students with connectivity at home.
 - Students without connectivity at home but who have regular and reliable access to other sources of connectivity.
 - For students without home connectivity, primary source for internet connectivity outside of the school.
 - Type of connectivity, such as broadband, satellite, or dialup.
 - For homes with no connectivity, reason for lack of connectivity.

This report provides the most current data and programmatic information in alignment with the North Carolina Digital Learning Plan. The data for the Digital Learning Dashboard as required by session law: 115C-102.9 is collected by the PSU. The provides detailed data by PSU and grade level. There were 217,332 responses from PSUs. The data collected for this report was the implementation year and was gathered from February to June of 2023. The data is expected to have higher participation in the 24-25 school year due to gathering the data throughout the year versus a smaller spring window.

This Report covers responses from 322 Public School Units, including:

- 115 Local Educational Agencies
- 206 Charter/Lab/Regional Schools

STUDENT ACCESS TO DEVICES

IN SCHOOL ACCESS TO DEVICES

Access to personal devices is critical for maintaining continuity of learning, enabling students to explore, research, and expand their knowledge base seamlessly. By providing the necessary technology, schools ensure students can actively participate in digital learning opportunities, fostering deeper engagement and academic growth.

Key findings from the Student Digital Dashboard survey regarding in School devices include:

- 83.85% of Public-School Units (PSUs) reported a 1:1 device-to-student ratio. These devices belong to the PSU and are used by students during the school day.
 - 100% of Local Education Agencies report a 1:1 device-to-student ratio.
 - 74.75% of Charter/Lab/Regional schools report a 1:1 device-to-student ratio.
- 2,206,443 devices were reported in the Digital Learning and Media Inventory. The breakdown of device types include:
 - 90.37 % of the devices reported are Chrome devices
 - 8.56% of the devices reported are Windows devices
 - 1.07% of devices reported are Apple devices
- Of these reported devices
 - 55.94% of devices remain at the school
 - 44.06% of devices go home with students

OUT-OF-SCHOOL DIGITAL DEVICE ACCESS

Home access to devices can include devices provided by the school and are taken home by students (as indicated in the percentages above) or devices that belong to the family. PSUs send home family surveys to gather data from families on whether they have access to devices for their students to use. This survey was completed by the families of 99,038 students.

Key findings from these responses include:

- Student device access was answered by 99,038 families with:
 - 39.9% of families reported that their student uses a school provided device at home.
 - 30.8% of families reported that their student uses a family device.
 - 21.41% of families reported that their student has access to both a family and school device at home.
 - 6.6% of families reported that their student does not have access to a device at home.
 - 1.23% of families reported that they would prefer not to answer the question.
- The types of devices 41,556 families responded having access to at home include:
 - 31.74% Chromebook
 - 24.65% N/A
 - 15.85% Windows Laptop
 - 7.21% Prefer not to answer
 - 6.04% iPad
 - 4.78% Windows Desktop
 - 4.612% Android/Kindle Tablet
 - 3.27% Apple Laptop
 - 1.12% Apple Desktop
 - 0.73% Windows Tablet
- When asked why student did not have access to a device at home, 98,911 families responded with:
 - 30.21% Not Applicable
 - 3.21% Prefer not to answer
 - 1.89% A device is too expensive to purchase
 - 0.66% Family chooses to not purchase a device
 - 0.49% Devices are broken, damaged, or outdated
 - 0.47% A device is not provided by the school
 - 0.40% Other
 - 0.26% Lack of internet to use a device at home

OUT-OF-SCHOOL INTERNET CONNECTIVITY

PSUs send home surveys to gather data from families on whether they have internet access for their students to use.

Key findings from these responses include:

- Families were asked if their student has consistent internet access at home that is adequate to complete schoolwork. 67,376 families responded to this question with:
 - 86.87% responding yes
 - 6.14% responding sometimes
 - 1.76% responding no
 - 5.23% responding with prefer not to answer
- Families were asked to describe the type of internet connectivity available at home. 49,860 families responded with:

- o 54.65% Broadband/DSL
 - o 11.90% Fiber
 - o 3.73% Satellite
 - o 2.02% Personal hotspot from cellphone
 - o 0.19% Dial-Up
 - o 2.16% N/A
 - o 10.50% Other
 - o 13.18% Prefer not to answer
- Families were asked to describe their source of internet access if they reported they could not access it at home. 33,049 families responded with:
 - o 30.12% Prefer not to answer
 - o 18.15% Hotspot provided by the home
 - o 15.15% Internet at the public library
 - o 14.49% Internet at another home
 - o 8.55% No regular reliable internet
 - o 4.26% Internet in school parking lot
 - o 3.88% Internet at another community location
 - o 3.21% Internet within the community
 - o 1.9% Hotspot provided by the school
 - o 0.28% Internet at a park and ride
 - o 0.03% Internet on a school bus
- Families who did not have connectivity were asked to share the reason for the lack of connectivity. 33,325 families responded with:
 - o 81.74% Not Applicable
 - o 8.2% Prefer not to answer
 - o 5.36% Internet available but not dependable
 - o 1.84% Internet available but too expensive
 - o 1.17% Not available where the home is located
 - o 0.77% Internet available but not adequate
 - o 0.54% Family chooses not to have internet
 - o 0.20% No cell signal, hotspots do not work
 - o 0.09% No alternatives provided by school
 - o 0.09% Broken or outdated equipment

RECOMMENDATIONS

Recommendation 1: Explore ongoing funding to sustain a four-year refresh rate for student devices

Over the past three years, there has been an increase in the quantity of student devices provided by schools, signifying a positive trend in digital access. However, a pressing concern for Public School Units (PSUs) revolves around the sustainability of these devices at their current levels due to funding constraints. Specifically, 82 LEAs and 101 Charter/Lab/Regional schools expressed that they do not have funding to support device refresh

cycles now that the Elementary and Secondary School Emergency Relief (ESSER) funds have been expended.

Refreshing devices will maintain an effective educational environment. Modern technology ensures students have access to the latest information and online resources, enhancing their learning experience. Up-to-date devices can securely run contemporary software applications, providing students with a wealth of relevant and current information that supports their educational growth and exploration of new concepts.

Moreover, using modern technology in education aligns students' skills with those needed in the current workforce. Exposure to updated tools and software familiarizes students with the digital skills required for future careers, enhancing their adaptability and employability.

It is recommended to investigate ongoing funding based on an annual 25% refresh rate of the student population at each school. This will provide a four-year refresh cycle for each school.

Recommendation 2: Ensure Home Connectivity for Students

While significant strides have been made in enhancing connectivity, 7.93% of respondents still have unreliable internet connections. The top three reasons reported for inconsistent or no access to the internet:

- o 5.36% Internet available but not dependable
- o 1.84% Internet available but too expensive
- o 1.17% Not available where the home is located

It remains imperative for the North Carolina Department of Public Instruction (NCDPI) to sustain collaborative efforts with external partners, working towards the overarching objective of ensuring consistent and dependable connectivity for every household in the state. This ongoing commitment is paramount in bridging the digital divide and promoting equitable access to educational resources. This will be an even larger issue in the future with the Affordable Connectivity Program which had 900,000 homes participate in North Carolina, according to USAC, no longer available.

CONCLUSION

The *Statewide Trends in Student Digital Learning Access* report highlights the progress and challenges faced by North Carolina Public School Units (PSUs) in providing equitable digital access to students. Key findings indicate significant advancements in achieving a 1:1 device-to-student ratio. However, sustaining these devices remains a critical concern, as 82 Local Education Agencies (LEAs) and 101 Charter/Lab/Regional schools lack funding for device refresh cycles, particularly after the expiration of ESSER funds.

Additionally, while many families benefit from home internet access, 7.93% report unreliable or no connectivity due to cost, availability, or dependability issues. The report underscores the importance of continued investment in device refresh cycles and home connectivity to maintain progress and ensure students have uninterrupted access to digital learning resources.

To address these challenges, the report recommends:

1. Establishing ongoing funding for a sustainable four-year device refresh cycle to support long-term student device needs.
2. Ensuring reliable home connectivity for all students through partnerships and state initiatives to bridge remaining gaps.

These efforts are critical for sustaining gains in digital learning, promoting workforce readiness, and supporting personalized, equitable education across North Carolina. To access the public dashboard, go to: go.ncdpi.gov/DigitalLearningDashboard