Device Program Evaluation

May 2024

Background

Before 2015, Fulton County Schools relied on desktops and computer labs for student use. In 2015, a new approach– the Device Program – was initiated to support the personalized learning initiative developed by the FCS Academics Division. Initially, it provided one computing device for every three students in Grades K-5 and one device for each student in Grades 6-12. Due to the COVID-19 pandemic, the elementary ratio of students to devices was changed to 1:1 to facilitate remote learning for all students. iPads were provided to Pre-K and first-grade students, and students in Grades 2 through 12 were provided with laptops. All students took their devices home during the pandemic-impacted years.

After the pandemic-impacted years, students in Pre-K through Grade 5 could access devices in their classrooms. These devices were stored in carts for each student's use without being individually assigned. As a result, elementary students did not need to transport a device to and from school. In Grades 6-12, devices continued to be issued to each student, who could use them at home or school.

Evaluation Questions

1) What factors facilitate or impede the implementation of the Device Program?
    a. Do these factors of implementation differ by school? If so, how?
2) Are staff members implementing the device distribution program with fidelity?
    a. Timeframe
    b. Variations in procedures
    c. Professional learning
3) How often is educational technology integrated during the school day?
4) Are there any unintended consequences (positive and negative) of the device program (e.g., operational consequences)?
5) Do stakeholders have any recommendations (staff, administrators) for future implementation?
    a. Can the program be adapted to fit different schools' needs?

Methodology and Data

The evaluation used three data collection methodologies to address the evaluation questions: extant data collection, interviews and focus groups, and an FCS staff survey. The extant data collection focused on data related to program status, key program documents, and select operating statistics related to the program's implementation. Interviews and focus groups conducted included district-level technology staff, school administrators, school technology specialists (STSs), and media and educational technology instructors (METIs). Overall, 11 interviews and four focus groups were conducted.

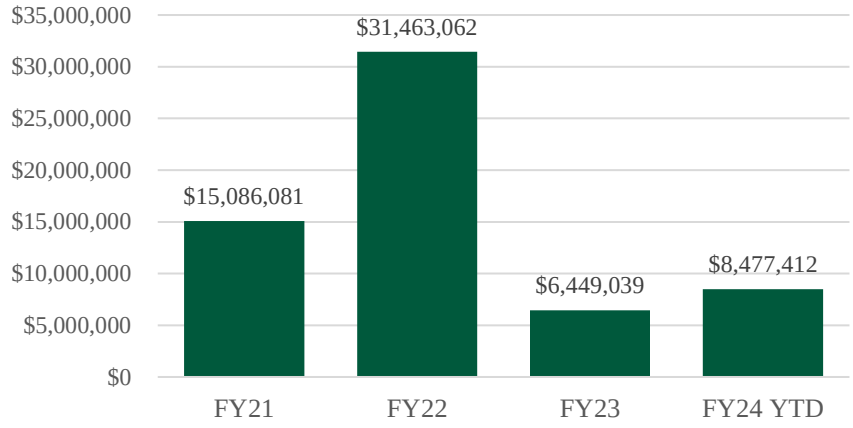
Gibson developed an online survey and administered it to all school administrators (i.e., principals and assistant principals), STSs, and METIs to solicit feedback related to the FCS Device Program. In total, 247 staff completed the survey for an overall response rate of 52.8%.

Results

Inventory and Purchases

Fulton County Schools utilized Special Local Option Sales Tax (SPLOST) funding to support the expenditures of the Device Program. Over the last four years, the district spent a total of $61,475,594 on the program, including the fiscal year (FY) 2024, which covers the period from July 1, 2023, to February 29, 2024. The majority of these expenditures, approximately 91%, were allocated to actual computing device (hardware) purchases. The remaining expenditures were primarily for device parts and vendor support services. The significant increase in spending during FY 2022 (Figure 1) can be attributed to the bulk purchase of devices to support the district's 1:1 Device Program initiative.

Figure 1. Device Program Expenditures by Fiscal Year



Source: FCS-provided Device Program expenditure data, up to February 2024

Device Purchases

Over the four-year period, FCS purchased a total of 84,852 devices. The majority of these devices, approximately 85%, were laptops, while the remaining devices were iPads. The breakdown of device purchases by fiscal year is as follows:

FY 2021: 21,650 laptops and 11,000 iPads
FY 2022: 33,725 laptops and 2,075 iPads
FY 2023: 6,402 laptops
FY 2024 (YTD): 10,000 laptops and 11,000 iPads

Device Inventory

As of February 2024, the district's device inventory included 96,203 devices, which is 12,767 more devices than the student enrollment of 83,436 for the 2023-24 school year. This surplus includes devices in transition from Fulton County's hardware depot, where repairs, reimaging, and configuration occur, as well as seed devices. Seed devices are extra devices provided to schools to ensure that there are enough devices available to swap out defective ones while they are being repaired. Each elementary school issues 40 seed devices, each middle school receives 90 seed devices, and each high school receives 45 seed devices, totaling 4,790 seed devices districtwide.

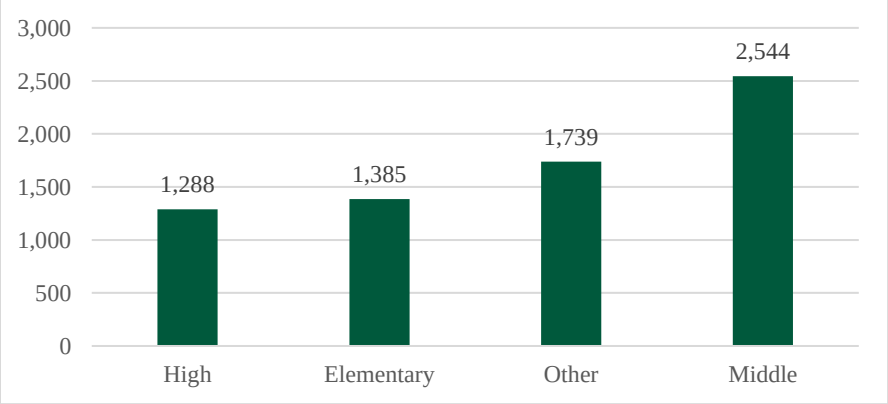
Device Damage Rates

Students in Grades 6-12 take their devices home daily and carry them from class to class during school days. In contrast, elementary school students do not take devices home; instead, they are stored in carts for use the following day. To manage the Device Program, the district monitors damaged devices through the use of the IT Ticket Service Dashboard to ensure sufficient replacements and maintain a 1:1 device ratio.

Middle schools have reported high device damage rates, likely due to the daily home and school use. Data from September 2023 to February 2024 indicates that middle schools had the highest number of damaged devices and the highest damaged device-to-student ratio among all school types (Figure 1 and Figure 2). Notably, four out of five middle schools—McNair, Renaissance, Sandtown, Paul D. West, and Woodland—piloting the use of carts to store devices rather than sending them home, reported the lowest damage rates, averaging 6.5%.

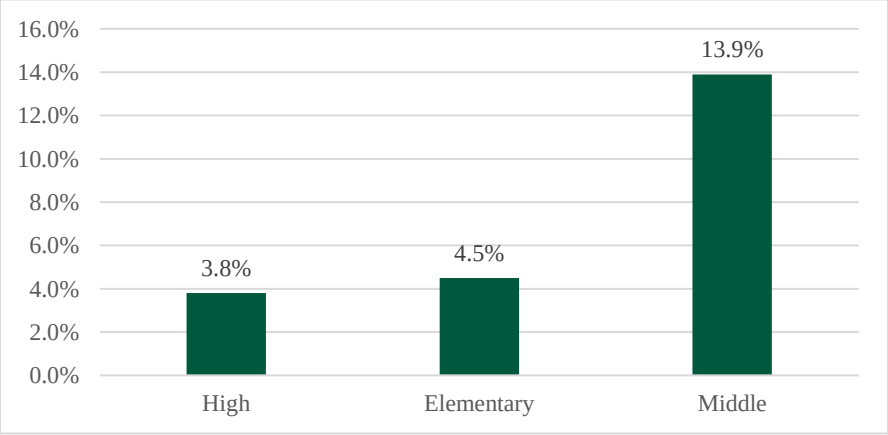
The Staff Survey results indicate that 56.6% of respondents agree with the statement, "Allowing students to take devices home is important for their learning." Additionally, 53.2% of respondents agree that "Requiring students to leave devices on campus will decrease the rate at which they are damaged."

Figure 2. Damaged Devices by School Type



Note: "Other" represents damaged devices that are in the district's Hardware Depot.
Source. FCS IT Department damaged device data, February 2024

Figure 3. Damaged Device-to-Student Ratio



Change Management Challenges

In the fall of the 2023-2024 school year the district transitioned from using the Destiny textbook management software to the S4 Atlas inventory module for device distribution and inventory due to significant data variances with the previous system. However, the S4 Atlas system proved to be user-unfriendly and inefficient, requiring 14 to 16 clicks for tasks that previously took only three or four clicks in Destiny. This caused delays in device distribution, leading some STSs to use Microsoft Excel to expedite the process. Survey and focus group results indicated that STSs found S4 Atlas difficult to use and ineffective in tracking devices, and the district did not conduct an impact analysis to measure the time and effort required for STSs to perform tasks in S4 Atlas. The inadequate training program further compounded these issues, resulting in the use of spreadsheets.

In the summer of 2023, the IT Department pre-assigned devices to students to streamline the check-out process. However, this approach led to significant delays and complications, particularly in schools with high student mobility. Many pre-assigned devices ended up unclaimed as some students did not show up at the assigned schools, while other schools faced a shortage of devices due to an influx of new students exceeding the contingency supply. To address this, STSs had to cancel the pre-assignments and reassign devices to new students, a process that was both time-consuming and challenging, especially with the new device distribution and tracking system. Survey responses showed that 86.1% of STSs experienced challenges with the pre-assignment of devices, with one-third perceiving a "serious" challenge, and 85.1% of principals also found the process challenging.

In 2023-24, the district shifted device-related roles and responsibilities from device coordinators to STSs, but survey results showed that METIs and STSs were not aware of these changes and had issues with device management responsibilities and communication of procedures. This indicates that the "communicate the change" step in the change management process was not fully implemented. Both METIs and STSs responded to the survey statement, "District management defines the responsibilities of staff managing student devices," with overall disagreement percentages of 52.8% and 50.9%, respectively. Additionally, METIs and STSs generally disagreed with the statement that "District leadership clearly communicates changes regarding device management procedures," with overall disagreement percentages of 79.4% and 70.3%, respectively.

School Technology Specialists (STS) Work Calendar

The evaluation revealed that the 190-day work calendar for STSs does not align with the demands of the Device Program. STSs start one week before school opens and end on the last day of the school year, leaving limited time for device preparation and training during the summer. This misalignment restricts the ability of STSs to adequately prepare for device distribution and attend necessary training sessions. The summer cleaning process, while effective, demonstrated the need for a longer work calendar to better match the staffing capacity with the program's demands. Extending the STS work calendar would ensure a smoother device distribution at the beginning of the school year and improved device support throughout the year. Additionally, the evaluation found that STSs who volunteered and worked during the summer cleaning felt better informed and prepared for Device Program changes compared to those who did not volunteer. This indicates that having STSs available during the summer is beneficial for both device preparation and staff readiness.

Fines and Fees

The district has established fines for lost, stolen, or damaged devices and accessories, as outlined in the Device User Agreement. If a device is lost, stolen, or damaged while issued to a student, whether intentionally or due to negligence, the student and their parent/guardian are responsible for the following fines:

- $250 for a lost or stolen device
- $100 for a damaged device
- $30 for each lost or damaged accessory

Interviews and focus groups revealed concerns from district staff about inconsistencies in enforcement, confusion regarding enforcement responsibilities, and communication issues about fines and fees across schools. STSs and METIs expressed high levels of disagreement (70.9% and 68.0%, respectively) with the statement that responsibilities for enforcement are clearly defined. In contrast, assistant principals and principals showed overall agreement rates of 56.9% and 58.4%, respectively, indicating a significant difference in perceptions. A similar pattern emerged regarding clearly defined roles for enforcing device fines and fees, with STSs and METIs showing high disagreement levels (73.4% and 62.8%, respectively), while assistant principals and principals showed higher agreement levels (59.4% and 65.6%, respectively). These inconsistencies in enforcement and lack of clearly defined roles may create challenges in maintaining accountability and fairness across schools and contribute to misunderstandings among students and families regarding the consequences for damaged or stolen devices.

Additionally, there is no consistent district-wide process for collecting signed Device User Agreements, which outline the responsibilities and consequences for using district-provided devices. In 2023-24, the district implemented an electronic agreement process through the Student Information System (SIS), but 62.7% of agreements remained unsigned. Without signed agreements, the district cannot ensure that students and parents understand and accept their responsibilities, hindering the enforcement of consequences for lost or damaged devices.

General Purpose Devices

The absence of general-purpose devices in schools creates management risks, particularly for new students and during assessments. Schools rely on pre-assigned devices and a limited number of seed devices to meet student needs. When new students enroll or additional devices are needed for testing, the lack of general-purpose devices can lead to shortages and delays. This situation places additional burdens on STSs and affects the smooth operation of the Device Program.

Documented Device Refresh Plan

The district does not have a documented student device refresh plan, making it difficult to manage the replacement of aging devices effectively. While the district aims to replace devices every four years, this practice is not formally documented. A typical device refresh plan includes a replacement timeline, device counts by school, and projected costs. Without a documented plan, the district may struggle to ensure timely replacements and maintain the quality and performance of student devices.

Recommendations

Based on the data and findings, the vendor recommends clearly defining roles and responsibilities for staff involved in enforcing fines and fees to ensure consistency across all schools. Additionally, by consistently enforcing the provisions of the Device User Agreement, the district can ensure accountability, discourage device misuse, and promote uniform enforcement of consequences for intentional device damage or loss. It is also advised to document and communicate the student device refresh plan to manage student devices effectively among schools. Finally, incorporating all key steps of the change management process into future district-wide changes is essential to avoid confusion.

Recent Department Updates

During the 2024–2025 school year, the department distributed an infographic to parents outlining fines for damages to FCS school devices. The infographic provided a detailed breakdown of what constitutes damage and the associated fees, while also noting that fines will not be waived by schools.

The check-in/check-out process for student devices has been streamlined to require only six clicks. Fines are recorded in S4 and subsequently transferred to OSP (Online School Payments) to facilitate clear communication with parents and simplify fine collection. Comprehensive guidelines have been provided to School Technology Specialists for assessing and recording damages, ensuring consistency in both process and evaluation. This process is continually refined as new gaps are identified, and "How-To" guides for technicians have been updated with screenshots and expanded technical details.

In addition, the Information & Technology Division purchased device cases and distributed them to middle schools that did not have devices housed in carts. Increasing the frequency of device checks throughout the year has expedited the processing of damaged devices and reduced the number of devices awaiting repair during critical periods. A device checklist has also been created to assist coordinators in recording and reporting damages.

Furthermore, revising the operational model to enable elementary technicians to assist at middle and high schools has accelerated the turnaround time for repairing damaged devices.

Limitations and Considerations

The evaluation of the Device Program faced several limitations that impacted its comprehensiveness and accuracy. One significant limitation was the lack of device usage data during the evaluation timeframe, which hindered the ability to directly assess the frequency of educational technology integration during the school day. Additionally, the overall response rate for the staff survey was 52.8%, which, while substantial, still left a significant portion of the staff unrepresented. This limitation may affect the generalizability of the survey results and the overall evaluation findings.

The evaluation also included a limited number of interviews and focus groups with key stakeholders. While these provided valuable insights, the relatively small sample size may not fully capture the diverse perspectives and experiences of all stakeholders involved in the Device Program. Another challenge was the transition to the new S4 Atlas inventory software during the evaluation period, which introduced challenges and inconsistencies in data

tracking and reporting. This transition affected the accuracy and reliability of the device inventory data used in the evaluation.

Conclusion

The evaluation of the Fulton County Schools Device Program highlighted several strengths, including the successful implementation of the summer device cleaning process and the revised device support model. However, it also identified key areas for improvement, such as the need for better change management processes, more consistent data collection, and enhanced communication and training for staff. Additionally, there should be consideration of changes to middle school device distribution to minimize the large number of damaged devices. Addressing these limitations will be crucial for optimizing the program's effectiveness and ensuring that all students have reliable access to educational technology. By implementing the recommended changes, FCS can enhance the overall success and sustainability of the Device Program.