



Chromebook Inventory Audit

For School Years 2014-2015 through 2017-2018 (partial)

Office of Internal Auditing
October 2018

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Preface

The Office of Internal Auditing serves to improve the fiscal accountability and enhance the public's perception of the management and operations of the Escambia County School District. This engagement strives to meet those objectives.

Audits, reviews, and other engagements are determined through a District-wide risk assessment process, and are incorporated into the annual work plan of the Office of Internal Auditing, as approved by the Audit Committee. Other assignments are also undertaken at the request of District management.

This engagement was conducted with the full cooperation of school staff and other District personnel.

Any recommendations included in this engagement are designed to improve operations and serve as the basis for informed discussions related to policies and procedures.

This engagement was conducted in accordance with the International Standards for Professional Practice of Internal Auditing, as promulgated by the Institute of Internal Auditors.

We thank the various school and site personnel and other District personnel for their cooperation and commitment. We look forward to reviewing their progress when we follow-up on our recommendations.



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Executive Summary

Our office conducted an audit of the District's processes for ensuring Chromebooks are properly safeguarded.

The Office of Internal Auditing is tasked with monitoring the safeguarding of the District's fixed assets. In 2015, the District began to purchase Chromebooks for widespread student use. As Chromebooks have become a significant portion of the District's fixed assets, our office determined that an audit was necessary to ascertain whether or not District policies and procedures were being properly followed.

We interviewed District personnel and reviewed various pieces of support.

We conducted an audit that consisted of several procedures:

- Interview the coordinator of district media resources (coordinator) to obtain an understanding of various processes related to Chromebooks
- Determine that Chromebooks are properly recorded and issued a correct service tag for tracking purposes
- Conducted an inventory of Chromebooks recorded in District records
- Determine that District records accurately reflect the current nature of the Chromebooks (lost, out for repair, checked- in, etc.)
- For Chromebooks noted as "lost" or "out for repair" ensure that proper supporting documentation is maintained.

4.8% of Chromebooks tested had all least one discrepancy.

We tested Chromebooks located at 18 schools. We randomly selected 595 Chromebooks for testing, and noted exceptions with 29 Chromebooks (4.8%) in our sample. Exceptions included:

- Unable to verify the existence of Chromebooks reported in District records
- Status of Chromebooks per District records did not agree with actual Chromebook status
- Proper documentation was not present for Chromebooks reported as "lost" or "out for repair"
- Chromebook service tag numbers per District records did not agree with the actual numbers per inspection of the Chromebook

Our sample was not statically selected, but was limited to either 2% or 5% (based on school level), with a minimum of 20 items tested for each school. Given our small non-statistical sample size, care should be taken when attempting to extrapolate our sample to the population.

No exceptions were noted at 6 of the 18 schools we tested: A.K. Suter Elementary, Ferry Pass Elementary, Jim Allen Elementary, Longleaf Elementary, O.J. Semmes Elementary, and Ferry Pass Middle. These schools should be commended for their attention to detail and accurate record keeping.

This report contains recommendations.

During our testing, we noted that 4 schools had what appeared to be surplus Chromebooks that were not checked out to particular students.

This report contains recommendations. The Executive Summary is intended to highlight the various aspects of the report. The full report should be read to understand the basis of our recommendations. We will follow up on these recommendations approximately 90 days after the issuance of this report.

Background

The Superintendent implemented a plan to have Chromebooks available for use by all students between the 3rd and 12th grades.

In 2015, the Superintendent implemented the “Vision 2020” initiative. The objective of this initiative was to allow students to learn through exploration, creativity, innovation, and problem solving. This initiative also included “extending learning from the classroom to the home by providing technology devices (Chromebooks) for every 3rd through 12th grade student by school year 2018-2019.”

Over 41,000 Chromebooks have been purchased and utilized.

Over the ensuing years, as part of this initiative, the District purchased and provided over 41,000 Chromebooks for use by the student population. Chromebook orientation is provided to parents and students detailing their use, handling, and care. Chromebooks are checked out to individual students. Expected usage for Chromebooks is 3 years in Elementary and Middle and 4 years in High schools.

An SOP for Chromebooks was issued and revised in 2016 and 2017.

To ensure the physical management of Chromebooks, a Standard Operating Procedure (SOP) was issued in February 2016 (and revised in June 2016 and June 2017). In addition, the coordinator provides instructions to appropriate District personnel at all school locations each school year detailing the proper handling of Chromebooks.

Chromebooks are entered into the same component of Destiny as textbooks.

Each Chromebook had its own unique identifying number (referred to as a service tag). The coordinator receives these service tag numbers from schools, IT, and the budgeting department for entry into Destiny, a system used for tracking inventory. There are two components of Destiny, one for library use and the other for textbooks, and all service tags for Chromebooks are entered into the textbook component of Destiny.

Chromebook statuses are tracked in Destiny, and procedures are in place for each potential status.

A Chromebook’s status (available, checked-in, checked-out, lost, or out for repair) is tracked. When a Chromebook is checked-out by a student, a label is created with the student’s name and number, and is placed on the bottom of the Chromebook near the serial code. If a Chromebook has not been lost, it will be turned in at the end of each year and its status is reported as checked-in/available. If a Chromebook is lost or stolen, that is reported, and the status is changed in Destiny to lost. As the school is

Lost Chromebooks are kept in the GoGuardian tracking system for 4 years.

notified a Chromebook has been lost or stolen, a hold is put on the relevant student's account. If the loss is determined to be due to negligence, the student is assessed a fine equivalent to the replacement cost of the Chromebook. The student cannot have their records transferred or graduate until the balance of the Chromebook's fine is paid in full. Additionally, the school's technician reports the lost status to the District's IT department, and they search GoGuardian (anti-theft log) in an attempt to locate the machine. The machine is kept in the GoGuardian system for 4 years (the same amount of time lost textbooks are maintained).

Inventory reports are generated each year and reviewed by multiple District personnel.

Inventory reports can be generated at any time. At the beginning of each school year, the coordinator sends a Textbook & Chromebook Inventory and Lost Report for the prior school year to the principals, textbook coordinators, technology coordinators, and secretaries. The principal is asked to sign the report and return to the coordinator for auditing purposes.

Objective

The objective of this audit was to determine that the processes instituted by the District to ensure the safeguarding of Chromebooks are being properly implemented.

As is customary in all our engagements, we also explored opportunities for strengthening District processes and/or controls in an effort to become more effective and efficient.

We believe our audit provides a reasonable basis for our findings and recommendations.

Scope

A percentage of total Chromebook population was used to determine sample size.

The Chromebook population included items purchased during school years 2014-2015 through 2017-2018 (partial). This audit included a random sample of Chromebooks from all schools selected on a rotational basis, with minimum thresholds applicable for each school level:

- Elementary schools had a random sample size of 5% of the total Chromebook population at the school.
- Middle and high schools had a random sample size of 2% of the total Chromebook population at the school.

- If the above sample sizes yielded less than 20 sample items at each school, additional items were judgmentally selected to reach the 20 sample item minimum.

Various District records and associated supporting documentation were reviewed. These documents included, but were not limited to the following:

- Chromebook inventory reports from Destiny
- Invoices supporting the purchases of Chromebooks
- Pictures of service tags
- IT Help Desk emails

Methodology

The coordinator was interviewed.

We conducted an interview with the coordinator to gain an overall understanding of various processes related to Chromebooks.

We also obtained and reviewed various supporting documentation, including, but not limited to Destiny reports, invoices supporting Chromebook purchases, Zendesk IT support tickets (for damaged Chromebooks out for repair), tag reports, and e-mails confirming lost Chromebooks.

Documentation was obtained in order to determine the random sample for testing.

We reviewed Destiny reports to determine the total population of Chromebooks at each school in this audit's rotation. From those reports, we selected a random sample totaling either 2% or 5% (based on school level), with a minimum of 20 items tested for each school. Also, if the sample did not include both a lost and out-for-repair Chromebook, those were added to the sample.

Documentation related to Chromebooks selected was reviewed to determine its accuracy and adequacy.

We then sent an e-mail to each school's principal and technology coordinator requesting pictures of each Chromebook's inventory tag, and copies of the tag reports. These tag reports were reviewed to determine several pieces of information:

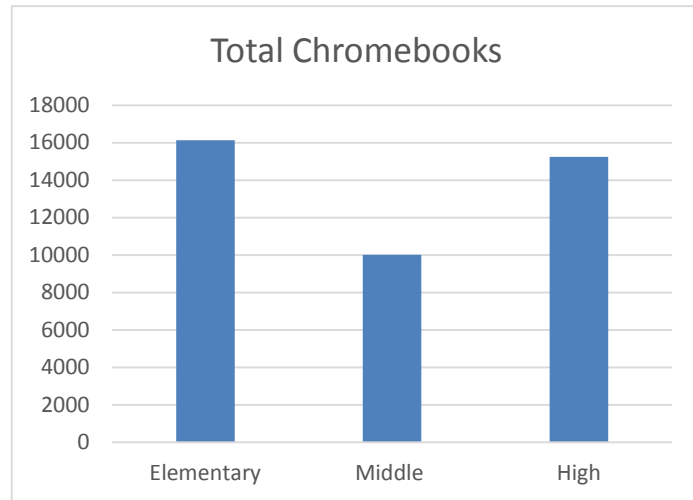
- The status of the Chromebook (who it is checked-out to, if it is available, if it is lost, or if it is out for repair)
- Whether proper support was given for Chromebooks lost or out for repair
- Whether each Chromebook service tag has the appropriate amount of digits (7) in Destiny

Upon the completion of fieldwork, exit conferences to discuss the results of the review are conducted with various relevant parties, if necessary.

Detailed Results

Over 41,000 Chromebooks have been purchased for student use.

In 2015, the District began to purchase Chromebooks for student use. Over the ensuing years, the District has purchased and provided over 41,000 Chromebooks for use by the student population:



We selected a sample of Chromebooks for testing.

A sample of 18 schools was selected based on a rotational schedule. This sample included 11 elementary, 3 middle, and 4 high schools. A sample of 595 Chromebooks was selected for testing to determine the procedures in place at the District and school levels to ensure proper safeguarding of Chromebooks. Additional testing was performed on our sample to accomplish several different objectives:

- To determine if Chromebooks are properly recorded and issued a correct service tag to facilitate tracking
- To conduct an inventory of Chromebooks recorded in District records
- To determine if Destiny accurately reflects the current status of Chromebooks (lost, out for repair, checked-in, etc.)
- To ensure that appropriate supporting documentation is maintained for Chromebooks noted as “lost” or “out for repair”

Our sample was not statically selected, but was limited to either 2% or 5% (based on school level), with a minimum of 20 items tested for each school. Given our small non-statistical sample size, care should be taken when attempting to extrapolate our sample to the population. It is unclear what percentage of the total Chromebook population has inaccurate information reported in Destiny and/or lacks supporting documentation based on its status.

Our testing indicated multiple Chromebook discrepancies throughout our sample.

No discrepancies noted at A.K. Suter Elementary.

One Chromebook had a discrepancy at Blue Angels Elementary.

Two Chromebooks had discrepancies at C.A. Weis Elementary.

No discrepancies noted at Ferry Pass Elementary.

No discrepancies noted at Jim Allen Elementary.

Results of Testing

We randomly selected 595 Chromebooks for testing, and noted exceptions with 29 Chromebooks (4.8%) in our sample. Some Chromebooks had multiple exceptions. The specific details per each school are as follows:

A.K. Suter Elementary

District records indicated that 387 Chromebooks were possessed by A.K. Suter. **We randomly selected 20 Chromebooks for testing, and noted no exceptions.**

Blue Angels Elementary

District records indicated that 880 Chromebooks were possessed by Blue Angels. **We randomly selected 45 Chromebooks for testing, and noted an exception with 1 of the 45 Chromebooks (2.22%) in our sample.**

- Chromebook (6GMPY22) – This Chromebook was indicated as “lost.” Upon review of the associated invoice, it was determined that 25 Chromebooks were entered into Destiny; however, only 24 Chromebooks were received and invoiced.

Note: Prior to the issuance of this report, the extra service tag was deleted from Destiny.

C.A. Weis Elementary

District records indicated that 402 Chromebooks were possessed by C.A. Weis. **We randomly selected 21 Chromebooks for testing, and noted exceptions with 2 of the 21 Chromebooks (9.52%) in our sample:**

- Chromebook CH86962 – This Chromebook had a status of “checked-in/available.” We were unable to verify the Chromebook’s existence.
- Chromebook 8LJJXF2 – This Chromebook had a status of “checked-in/available.” We were unable to verify the Chromebook’s existence.

Ferry Pass Elementary

District records indicated that 652 Chromebooks were possessed by Ferry Pass. **We randomly selected 34 Chromebooks for testing, and noted no exceptions.**

Jim Allen Elementary

District records indicated that 476 Chromebooks were possessed by Jim Allen. **We randomly selected 24 Chromebooks for testing, and noted no exceptions.**

No discrepancies noted at Longleaf Elementary.

Longleaf Elementary

District records indicated that 629 Chromebooks were possessed by Longleaf. **We randomly selected 32 Chromebooks for testing, and noted no exceptions.**

Two Chromebooks had discrepancies at Myrtle Grove Elementary.

Myrtle Grove Elementary

District records indicated that 476 Chromebooks were possessed by Myrtle Grove. **We randomly selected 25 Chromebooks for testing, and noted exceptions with 2 of the 25 Chromebooks (8.00%) in our sample:**

- Chromebook 78ZMY22 – This Chromebook had a status of “checked-in/available.” We were unable to verify the Chromebook’s existence.
- Chromebook 5N0NY22 – This Chromebook had a status of “lost.” However, we were able to verify the existence and availability of the Chromebook.

Note: Prior to the issuance of this report, the status of Chromebook 5N0NY22 was corrected in Destiny.

No discrepancies noted at O.J. Semmes Elementary.

O.J. Semmes Elementary

District records indicated that 316 Chromebooks were possessed by O.J. Semmes. **We randomly selected 20 Chromebooks for testing, and noted no exceptions.**

Two Chromebooks had discrepancies at Pleasant Grove Elementary.

Pleasant Grove Elementary

District records indicated that 539 Chromebooks were possessed by Pleasant Grove. **We randomly selected 28 Chromebooks for testing, and noted exceptions with 2 of the 25 Chromebooks (7.15%) in our sample:**

- Chromebook J1TY9H2 – This Chromebook had a status of “checked-in/available.” We were unable to verify the Chromebook’s existence.
- Chromebook BKYL82 – This Chromebook had a status of “lost.” However, per review of the District records, the Chromebook’s service tag was incorrect. The auditor notified the coordinator and the service tag was corrected. Once the tag was corrected, we were able to verify the existence of the Chromebook.

One Chromebooks had multiple discrepancies at Scenic Heights Elementary.

Scenic Heights Elementary

District records indicated that 845 Chromebooks were possessed by Scenic Heights. **We randomly selected 43 Chromebooks for testing, and noted exceptions with 1 of the 43 Chromebooks (2.33%) in our sample.**

- Chromebook (DS2KKLD2) – This Chromebook had a status of “checked-in/available.” Per review of District records, the service tag for this Chromebook (DS2KKLD2) was incorrect. The auditor notified the coordinator and the service tag was corrected. Once

<p>One Chromebook had a discrepancy at West Pensacola Elementary.</p>	<p>the tag was corrected, we were able to verify the existence of the Chromebook.</p> <p><i>West Pensacola Elementary</i> District records indicated that 437 Chromebooks were possessed by West Pensacola. We randomly selected 23 Chromebooks for testing, and noted an exception with 1 of the 23 Chromebooks (4.34%) in our sample.</p> <ul style="list-style-type: none"> • This Chromebook (5MFR952) had a status of “lost.” However, we were able to verify the existence and availability of the Chromebook. <p><i>Note: Prior to the issuance of this report, the status was corrected in Destiny.</i></p>
<p>One Chromebooks had multiple discrepancies at Bellview Middle.</p>	<p><i>Bellview Middle</i> District records indicated that 1,564 Chromebooks were possessed by Bellview Middle. We randomly selected 32 Chromebooks for testing, and noted an exception with 1 of the 32 Chromebooks (3.13%) in our sample.</p> <ul style="list-style-type: none"> • Chromebook’s (1BG7B52) – This Chromebook had a status of “checked-out.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
<p>No discrepancies noted at Ferry Pass Middle.</p>	<p><i>Ferry Pass Middle</i> District records indicated that 1,205 Chromebooks were possessed by Ferry Pass Middle. We randomly selected 26 Chromebooks for testing, and noted no exceptions.</p>
<p>One Chromebook had a discrepancy at Ransom Middle.</p>	<p><i>Ransom Middle</i> District records indicated that 1,644 Chromebooks were possessed by Ransom Middle. We randomly selected 34 Chromebooks for testing, and noted an exception with 1 of the 34 Chromebooks (2.94%) in our sample.</p> <ul style="list-style-type: none"> • Chromebook (G00YWW) – This Chromebook had a status of “lost.” However, per review of the District records, the Chromebook’s service tag was incorrect. The auditor notified the coordinator and the service tag was corrected. Once the tag was corrected, we were able to verify the existence of the Chromebook.
<p>Three Chromebooks had discrepancies at Pensacola High.</p>	<p><i>Pensacola High</i> District records indicated that 2,145 Chromebooks were possessed by Pensacola High. We randomly selected 43 Chromebooks for testing, and noted exceptions with 3 of the 43 Chromebooks (6.98%) in our sample:</p>

Five Chromebooks had discrepancies at Tate High.

- Chromebook 490T242 – This Chromebook had a status of “lost.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
- Chromebook GFYM252 – This Chromebook had a status of “lost.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
- Chromebook 9G1NFX2 – This Chromebook had a status of “checked-out/out for repair.” but could not be located. Adequate supporting document was not maintained to verify the status or existence of this Chromebook.

Tate High

District records indicated that 2,974 Chromebooks were possessed by Tate High. **We randomly selected 61 Chromebooks for testing, and noted exceptions with 5 of the 61 Chromebooks (8.19%) in our sample:**

- Chromebook 264JK82 – This Chromebook had a status of “lost.” However, we were able to verify the existence and availability of the Chromebook.
- Chromebook 9MM7962 – This Chromebook had a status of “checked-out.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
- Chromebook GFLR242 – This Chromebook had a status of “checked-in/available.” We were unable to verify the Chromebook’s existence.
- Chromebook 8HMR242 – This Chromebook had a status of “checked-out/out for repair.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
- Chromebook FZNK82 – This Chromebook had a status of “checked-out/out for repair.” but could not be located. Adequate supporting document was not maintained to verify the status or existence of this Chromebook.

Note: Prior to the issuance of this report, the status of Chromebook 264JK82 was corrected in Destiny. In addition, the school technician notified District IT, and the Chromebook GFLR242 is now being tracked in the GoGuardian system.

Two Chromebooks had discrepancies at Booker T. Washington High.

Booker T. Washington High

District records indicated that 2,289 Chromebooks were possessed by Booker T. Washington High. **We randomly selected 47 Chromebooks for testing, and noted exceptions with 2 of the 47 Chromebooks (4.25%) in our sample:**

- Chromebook 1R7X242 – This Chromebook had a status of “lost.” However, we were able to verify the existence and availability of the Chromebook.

Three Chromebooks had discrepancies at West Florida High.

- Chromebook 8761YF2 – This Chromebook had a status of “checked-in/available.” Per review of District records, the school technician sent this Chromebook back to Dell upon receipt, as it was not functioning. It was replaced by Chromebook 68QM7H2.

Note: Prior to the issuance of this report, the status of Chromebook 1R7X242 was corrected and Chromebook 8761YF2 was removed from Destiny.

West Florida High School of Advanced Technology (West Florida High)
District records indicated that 1,823 Chromebooks were possessed by West Florida High. **We randomly selected 37 Chromebooks for testing, and noted exceptions with 3 of the 37 Chromebooks (8.10%) in our sample:**

- Chromebook G97NK82 – This Chromebook had a status of “checked-out.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
- Chromebook 63HDK82 – This Chromebook had a status of “checked-out.” Adequate supporting document was not maintained to verify the status or existence of this Chromebook.
- Chromebook 4C8R242 – This Chromebook had a status of “lost.” However, we were able to verify the existence and availability of the Chromebook.

Note: Prior to the issuance of this report, the status of Chromebook 4C8R242 was corrected in Destiny.

Four schools had a surplus of Chromebooks that were extras utilized for testing.

Our testing also indicated that 4 schools appeared to have a surplus of Chromebooks that were not checked-out to students. When we inquired as to why these surpluses were present, we received responses that indicated that they were extras (or old Chromebooks that had been replaced) utilized primarily for testing.

Recommendations

Use GoGuardian to attempt to locate Chromebooks electronically.

In order to determine the status of the Chromebooks that we were not able to verify, **we recommend that District personnel use the GoGuardian system to attempt to locate the Chromebooks electronically, and where appropriate, update each Chromebook’s status in District records.**

Review inventory reports and verify proper documentation for lost or out for repair statuses.

In order to ensure that the status of Chromebooks in Destiny is accurate, **we recommend that school techs routinely review inventory reports to identify the Chromebooks considered lost or out for repair and verify the status is accurately reflected in Destiny.**

Review inventory reports and verify service tag numbers are 7 digits.

In order to ensure that the service tags for Chromebooks are keyed accurately into Destiny, **we recommend that school techs routinely review inventory reports sorted by service tag number and research those service tag numbers that are not 7 digits.**

Determine whether a reallocation of excess Chromebooks is appropriate.

In order to address the surplus Chromebooks at District schools, **we recommend District personnel determine whether a reallocation of excess Chromebooks to other locations is appropriate.**

We will follow up on these recommendation approximately 90 days after the issuance of this report.

Management Response



"Making a Positive Difference"

THE SCHOOL DISTRICT OF ESCAMBIA COUNTY

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Malcolm Thomas, Superintendent

December 18, 2018

Office of Internal Auditing Staff:

I have reviewed the Chromebook Audit Report; and, I am responding to the recommendations of the audit.

1. Use GoGuardian to attempt to locate Chromebooks electronically.

The use of GoGuardian to attempt to find Chromebooks electronically is the current practice that the IT department directs the technology contacts at each school to follow. This recommendation can be added to the annual inventory instructions sent out to the technology contacts at the end of each school year.

2. Review inventory reports and verify proper documentation for lost or out-for-repair statuses.

In the annual inventory, it is noted that all inventory reports are accessible by school techs, administrators, and other involved personnel. They are encouraged to rerun reports for updates. They are also encouraged to log-in to their catalog systems regularly to check on chromebook status, circulation statistics, and other relevant information.

3. Review inventory reports and verify service tag numbers are 7 digits.

Most service tag numbers are provided by IT and are copied into a .txt file that is compatible with the system for import. Even with the import process, there are occasional errors. However, sometimes numbers are entered manually. For example, this might be due to replacements for DOA chromebooks. There is potential for data entry error in these cases either at the school or district level. Therefore, it is advisable to review inventory reports as well as catalog listings within Destiny to locate numbers that are not 7 digits.

4. Determine whether a reallocation of excess chromebooks is appropriate.

The IT department, as well as the techs, are usually involved in the reallocation of excess chromebooks. To this point, many surplus chromebooks have been reallocated from one school to another, to EVA, or for use in 2nd grade classrooms.

Sincerely,

Dr. Sheila Brandt

Handwritten signature of Dr. Sheila Brandt.

Affirmative action / equal opportunity employer