

MUNICIPAL AUDITING REPORT CITY OF ROANOKE



RCPS Data and Analysis Audit – Amended Report

August 3, 2020

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AUDIT OBJECTIVES & CONCLUSIONS

The original audit report issued March 27, 2020, included a scope limitation due to redacted information about four (4) expedited retests given due to extenuating circumstances. At the request of the Audit Committee, Division management subsequently provided the redacted information, enabling us to verify that support for administering the retests was complete and approved in accordance with Division policy and State requirements.

Audit Objectives:

1. Were students properly registered in the Pearson system to take the appropriate SOL tests?

Yes – Processes are in place to help ensure students are registered for the appropriate Standards of Learning (SOL) tests. During the Spring 2019 testing session, approximately 1,147 students in grades three (3) through 12 were not registered for an SOL test. Based on our audit sample, students had appropriate reasons for not testing during the session, with one exception. While the importance of SOL testing dictates no tolerance for errors, we concurred with the Data and Analysis Department's belief that the mistake was human error. An isolated instance such as this does not lend itself to statistical projections over the entire population; accordingly, we did not project additional errors. We also did not cite a control weakness due to the isolated instance and did not make a recommendation.

2. Were students properly classified and provided appropriate testing accommodations in accordance with VDOE rules and regulations?

Yes with Qualifications – Processes are in place to help ensure students are correctly classified in the Pearson system and provided appropriate accommodations. We noted a relatively small number of coding errors, the nature of which appeared to be unintentional oversights or data entry errors. Some of the errors we noted would need to be reported to the VDOE as testing irregularities.

3. Did management grant employees appropriate access rights in the Pearson testing system based on assigned responsibilities?

Yes with Qualifications – There were 237 active Pearson users at the time of our audit. We identified 30 employees whose access was inconsistent with their assigned responsibilities, as well as four (4) former employees whose access was still active 30 days after termination. Based on the overall system of controls for student testing and the nature of the access rights involved, we did not identify any specific high impact exposures. However, unforeseen risks may exist that could be impactful to the Division. More careful management of user access rights would further mitigate risks and strengthen the Division's system of controls over test administration.

BACKGROUND

Roanoke City Public Schools (RCPS) Data and Analysis Department is responsible for coordinating student testing throughout the Division. One of their main objectives is to ensure test scores are valid and representative of the RCPS student population. This includes ensuring that students are properly identified and classified in the Student Information System (Synergy), and properly registered for appropriate tests in the State testing system (Pearson) during each testing administration (Summer, Fall and Spring). Department personnel are also responsible for ensuring that all school personnel are properly trained to administer testing and to report testing irregularities as they occur.

The VDOE regularly provides detailed written procedures that divisions must follow when administering student testing. The Data and Analysis Department is currently developing and documenting its own Operating procedures to help ensure it fulfills the responsibilities assigned by the Superintendent as well as the VDOE.

Budget and Finance Highlights

The Data and Analysis Department has five (5) staff members who work together to coordinate the implementation of the state testing system for Roanoke City Public Schools:

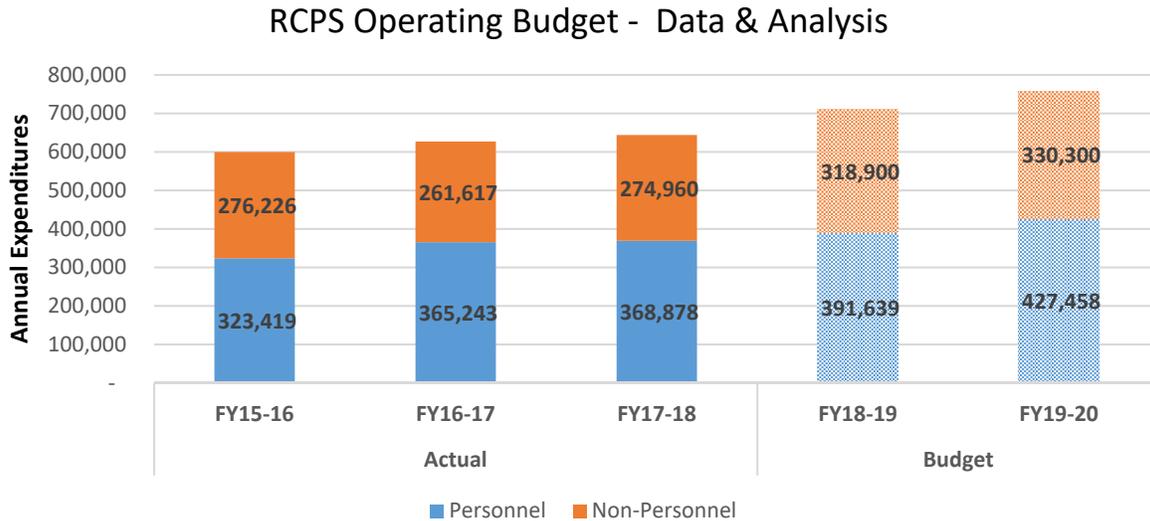


The department serves as test administration liaison to the State, test scoring companies, other school divisions, and RCPS departments and testing locations. They oversee State testing for the Division and coordinate various aspects of the Every Student Succeeds Act of 2015 (ESSA) and Virginia’s accountability system. Data and Analysis provides departmental leadership, working closely with Central Office Administration, Principals, and State Testing Coordinators to effectively plan and implement the VDOE Standards of Learning (SOL) testing program.

The strong leadership provided by the Director and Assistant Director of Data and Analysis is evident by the controls in place over test security and administration. The department has implemented a solid system of self-monitoring checks and balances. Automated queries and

analytics in place streamline the majority of data validations needed to monitor testing. The technical expertise of the Data and Analysis staff allow for efficient and effective monitoring.

The Operating Budget for the Data and Analysis Department shows the following expenditures over the past five (5) Fiscal Years:



As expected, personnel expenses have steadily increased each year in-line with general salary raises and increased benefit costs. Testing supplies and software make up the majority of the non-personnel costs each year (about 93% on average). These expenditures relate to benchmark testing and simulations, supply and scoring services for local assessments (CoGAT and IOWA), English Language Learners (ELL) testing and supplies, and SOL materials and test-related supplies.

Code of Virginia Requirements:

The Virginia Board of Education oversees the statewide system of public education, develops policies and provides leadership to school divisions in the commonwealth. The Code of Virginia requires the Board of Education to do the following:

- Report on the condition and needs of public education in the Commonwealth and identify any school divisions that have failed to establish and maintain schools meeting the prescribed standards of quality. The Board must provide for the accreditation of public elementary, middle and high schools (commonly referred to as the *Standards of Accreditation (SOA)*).

- Annually review the accreditation status of all schools in the Commonwealth, once every three years if the school has been fully accredited for three (3) consecutive years.
- Establish educational objectives known as the Standards of Learning, at a minimum for English, Mathematics, Science and History.

The Code of Virginia also requires each local school board to:

- Maintain schools that are fully accredited pursuant to the standards for accreditation as prescribed by the Board of Education, and report the accreditation status of all schools in the local school division annually in public session.
- Implement the Standards of Learning (SOL) or objectives specifically designed for their school divisions that are equivalent to or exceed the Board's requirements. Students shall be expected to achieve the educational objectives established by the school division at appropriate age or grade levels. The curriculum adopted by the local school division shall be aligned to the Standards of Learning.
- Require the use of Standards of Learning assessments, alternative assessments, and other relevant data, such as industry certification and state licensure examinations, to evaluate student progress and to determine educational performance.
- Prescribe alternative methods of Standards of Learning assessment administration for children with disabilities, as that term is defined in § 22.1-213, who meet criteria established by the Board to demonstrate achievement of the Standards of Learning. An eligible student's Individual Education Program (IEP) team shall make the final determination as to whether an alternative method of administration is appropriate for the student.

Any student who achieves a passing score on one or more, but not all, of the Standards of Learning assessments for the relevant grade level in grades 3-8 may be required to attend a remediation program. However, any student who fails to achieve a passing score on *all* of the Standards of Learning assessments for the relevant grade level in grades 3-8 or who fails an end-of-course test required for the award of a verified unit of credit shall be required to attend a remediation program or to participate in another form of remediation.

The Virginia Alternate Assessment Program (VAAP) is designed to evaluate the achievement of students with significant cognitive disabilities. The VAAP is available to students in grades 3-8 and high school who are working on academic standards that have been reduced in complexity and depth – called Aligned Standards of Learning (ASOL).

A student's Individualized Education Program (IEP) must specify the student's participation in the state accountability system as follows:

- Participation in the SOL test with no accommodations,
- Participation in the SOL test with accommodations; or
- Participation in the Virginia Alternate Assessment Program (VAAP)

Significant Internal / External Reporting:

The Data and Analysis Department uploads data to the Pearson testing system for each testing session. As the Pearson system is a Virginia mandated system, SOL testing scores are sent to the VDOE via automatic upload. The only exceptions are for paper and pencil tests, which are sent to the Pearson scoring center, scored by Pearson, and then uploaded to the VDOE.

While SOL testing administration is the core reporting function within the Data and Analysis Department, they also compile large sets of data to meet VDOE data reporting requirements. Every two (2) years, the Data and Analysis Department submits the Civil Rights Data Collection (CDRC) to the Federal government. Additionally, using the Single Sign-On for Web Application System (SSWS), the department submits the following data electronically to the VDOE:

- Student Record Collection – Fall, Spring, End of Year, and Summer
 - To comply with information and reporting requirements for report cards, and the performance indicators of the Every Student Succeeds Act (ESSA); consolidates and promotes efficiency in processing multiple data collections
- Master Schedule Collection – Fall and End of Year
 - To satisfy Federal assurances for the Every Student Succeeds Act (ESSA); provide data previously collected through Instructional Personnel (IPAL), Math and Science Course Enrollment (CEDC), and Secondary Enrollment Demographic Form (SEDF)

Key Information Systems:

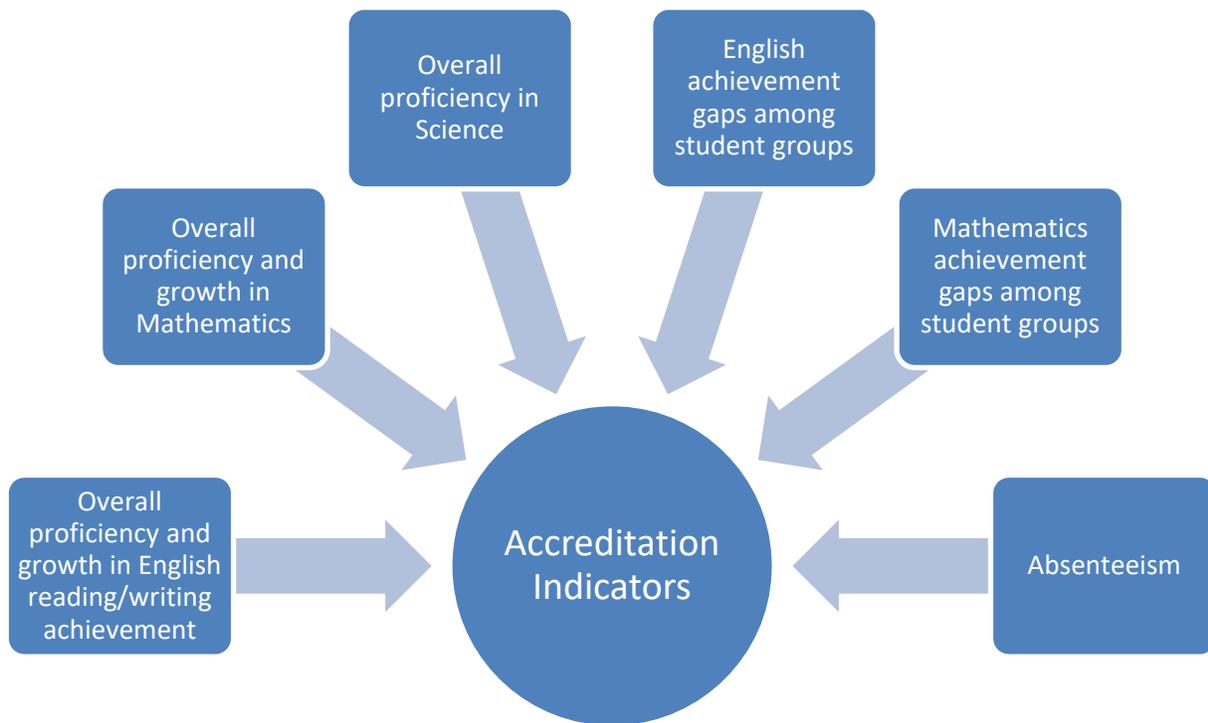
RCPS uses Synergy for its student information system. Both Synergy and Pearson are SIF (Schools Interoperability Framework) compliant, which allows Synergy to send and receive student data to and from Pearson.

Pearson is the sole provider of the state's assessments, including the materials, web-based technology, and test-related supplies needed to administer the SOL tests. Each student taking an SOL test must be registered into the web-based PearsonAccessNext system.

VA-IEP replaced the EasyIEP system for preparing, tracking, and maintaining Individualized Education Plans (IEP's) and supporting information for Special Education students. Fiscal Year 2019 was the first year that RCPS used VA-IEP.

Accreditation

Revised accreditation standards measure performance on multiple school-quality indicators, not just on overall student achievement on state tests. Beginning with the 2018-19 school year, elementary and middle schools are evaluated on the following indicators:



High schools are evaluated on the same indicators as noted in the above graphic, in addition to graduation and completion, and dropout rate. Beginning in the 2021-2022 school year, high schools will also be evaluated on college, career and civic readiness.

Based on 2017-18 performance data, ALL Roanoke City Public Schools were accredited in 2018-19.

According to a news article published on Roanoke.com on March 23, 2018, "Roanoke administered more than 2,000 retests to approximately 450 elementary and middle school students in the spring [of 2017], some after the school year had ended. Retests are permitted

with parental permission and if a student is within 25 points of a passing score.” Rules were also in effect at that time that gave divisions latitude to approve retakes based on “extenuating circumstances.”

The Virginia Board of Education developed additional criteria for retakes of SOL’s by elementary and middle school students in 2018. Local school divisions are now required to document extenuating circumstances and/or there must be a significant discrepancy between the student’s SOL test score and their typical academic performance. Parental permission is still required for a retest.

The following SOL testing was required for spring 2019:

- Grade 3: Reading and Math
- Grade 4: Reading, Math, and Virginia Studies
- Grade 5: Reading, Math, and Science
- Grade 6: Reading and Math
- Grade 7: Reading and Math
- Grade 8: Reading, Math, Science, Writing, and Civics and Economics
- Grades 9 – 12: Based on student’s course enrollment

New graduation requirements became effective for students who entered the ninth grade in the fall of 2018 (class of 2022). The number of standard credits for a Standard Diploma and for an Advanced Studies Diploma remained the same, but the number of verified credits - earned by passing a course in the content area **and** passing the associated end-of-course SOL test, was reduced to five (5):

Verified Credits Required upon entering 9th Grade in

	FY 19 and Beyond	FY 2011-18	
	Standard and Advanced Diploma	Standard Diploma	Advanced Diploma
English	2	2	2
Math	1	1	2
Laboratory Science	1	1	2
History and Social Sciences	1	1	2
Student Selected Test	0	1	1
	5	6	9

In addition, high school students are no longer required to take end-of-course SOL tests if they have already earned a verified credit in the subject – unless additional testing in mathematics, science or both is required by the Every Student Succeeds Act (ESSA). This law requires

annual testing in reading and math in grades 3-8 and at least once in high school. Students must also test in science at least once in elementary, middle and high school.

Key Roles for Testing

For FY 2018-19, RCPS assigned the following key roles for SOL testing:

Division Director of Testing (DDOT)

Michael Trussell, Director of Data and Analysis

- Serves as the point of contact between the school division and the VDOE and Pearson and has division wide responsibility for maintaining the security of test materials, implementation of SOL test procedures, and providing appropriate training for STCs and school administrators.

Project Manager (PM)

Britt Simmons, Technology Support Coordinator

- Responsible for the division wide technology infrastructure needed to conduct online testing and manage secure assessment data.

School Test Coordinator (STC)

Two (2) assigned for each school location

- Serves as the point of contact between the school and the DDOT.
- STC's have school wide responsibility for maintaining the security of test materials, implementing SOL test procedures, and providing appropriate training for Examiners, Proctors, and other school personnel involved in test administration.

Test Examiner (Examiner)

Several are assigned at each school site

- Responsible for administering the SOL test(s) according to the procedures outlined in the *Examiner's Manual*, and for maintaining the security of test materials.

Test Proctor (Proctor)

Several assigned at each school site as needed

- Works with the Examiner in administering the SOL test(s) and assists in maintaining an appropriate testing environment.
- Also an observer who may be called upon to verify that students did not receive help on the test, and the test was administered according to the procedures in the *Examiner's Manual*, and according to *the School Division Personnel Test Security Agreement*.

RCPS coordinates with day schools and residential facilities (BRACC, Hope Tree, Minnick, and Rivermont) to ensure RCPS enrolled students attending those facilities are tested in accordance with VDOE guidelines. The Data and Analysis department provides the SOL test materials to the STC at each facility for those RCPS students who are required to test. The STC is responsible for training employees at the facility and ensuring tests are properly administered. SOL test results for RCPS students attending these facilities count towards RCPS's state accountability and accreditation.

Virginia Department of Education Guidance

The VDOE publishes an SOL *Test Implementation Manual* each spring, fall and summer. The manual specifies the responsibilities of the DDOT and STC, as well as the procedures for administering the SOL tests. It outlines the following key elements:

- New requirements for each session testing
- Important reminders
- Testing schedule
- School division responsibilities
- Specific duties of the DDOT and STCs before, during, and after testing

The DDOT and all STCs must be familiar with the *Test Implementation Manual*, and with the *Supplement to the Writing and Non-Writing Test Implementation Manuals*, the *Examiner's Manuals*, *Supplements to the Examiner's Manuals*, and the *Student Registration Import File Requirements*, which are all available on Pearson's website with the appropriate login credentials.

Testing Accommodations & Irregularities

All accommodations provided to students must be documented in Pearson. Special test accommodations may be provided to students with a documented temporary condition, such as a broken arm or injured hand, who do not have an IEP or 504 Plan. Documentation of the temporary condition and necessary accommodations must be maintained in the student's file.

A testing irregularity is any occurrence during test administration that meets one or more of the following criteria:

- inappropriately influences student performance
- inappropriately influences the reporting of student performance
- constitutes a breach in test security
- results in the improper implementation of mandatory student testing

Test examiners must report all testing irregularities to the designated STC, who then reports them to the DDOT within 24 hours of their occurrence. While some irregularities may be resolved locally by the DDOT, most are forwarded to the VDOE for review and guidance.

Irregularities are often beyond the control of test administrators, such as a student vomiting during a test or a student cheating. Avoidable irregularities, such as an examiner leaving a room unattended while a test is in progress, are addressed through additional training and disciplinary action, if necessary.

Data & Analysis Testing Monitoring

Pearson notifies DDOTs via email when SOL test results are available in the system. Scores are available through the student data extract files, which include individual demographic and performance data. The DDOT is responsible for verifying that the student attributes have been applied correctly (disability, ethnicity, race, retest, recovery, economically disadvantaged, term graduate, etc.).

The Director of Data and Analysis runs a series of queries and reports on a daily basis during the testing window. The following daily audits were performed by the Data and Analysis Department for the Spring 2019 testing session:

- Demographics
 - Hispanic flag
 - Ethnicity coding
 - Primary disability
 - English Learners (Former EL and EL Overall Proficiency)
 - Disadvantaged
- Retest marking
- Recovery flag

Once the school's data has been finalized, the results are included in the Federal Accountability and State Accreditation calculations and reports. The superintendent's signature is required, verifying the accuracy of the data.

Consideration of Inherent Risks for Student Testing

We considered the following risks related to student testing when preparing our audit plan and throughout our fieldwork:

- Erasing and/or changing answers on tests
- Filling in answers left blank by students
- Providing correct answers to students
- Falsifying student test identification
- Suspending underperforming students in advance of scheduled testing days
- Giving extra time on tests
- Distributing "cheat sheets" to students
- Falsifying testing scores
- Providing accommodations to students who don't meet criteria
- Not registering poor performing students for tests
- Allowing students to retest who do not meet criteria

RCPS contracts with a hotline service through which employees and citizens can report concerns about student testing. The Interim Executive Director for Human Resources confirmed that there have been no student testing concerns reported through the hotline in the past year. The Director and Assistant Director of Data and Analysis both confirmed that no concerns related to student testing had been reported to them in the past year.

End of Background

Objective 1: Student Registration

Audit Objective:

Were students properly registered in the Pearson system to take the appropriate SOL tests?

Yes

Scope:

We focused our review on processes in place for registering students in Pearson for the FY 2018-19 school year. We compared Synergy records to the Pearson Student Extract Data File for the FY 2019 Spring Non-Writing SOL Examinations to ensure that all students were registered for at least one (1) Spring SOL exam.

Results:

Each K-12 student enrolled in a Virginia public school is assigned a unique student testing identifier (STI) by the Pearson system. The student retains the same STI while attending a Virginia public school, even when transferring between school divisions. The Pearson system administers all SOL testing activities based on the STI.

Prior to each SOL testing cycle (Summer, Fall and Spring), the RCPS Data and Analysis Department runs a query to identify all students in the Division's student information system (Synergy) who are enrolled in a grade or course that has an associated SOL exam.

Data and Analysis uses the query to create a roster of students identified for each SOL test for each school. School staff review their school's roster, marking any proposed changes and providing explanations for excluding students from a given exam. Valid reasons for excluding a student include:

- Student is tested through the Virginia Alternate Assessment Program.
- Student has already passed the SOL, but is repeating the class.
- Student no longer enrolled at the school.

Schools are instructed to add students to the roster who qualify as re-testers. Typically, these are high school students who passed a course but failed the associated SOL exam and cannot graduate without the verified credit. School counselors are responsible for tracking students that require a retest and for appropriately marking these students in Pearson.

Each school returns its roster with any corrections, additions, and/or deletions, signed and dated by the Principal certifying its accuracy. The deadline for correcting and filing rosters is typically 7-8 calendar days. Data and Analysis Department personnel make the necessary revisions on the Student Registration Import (SRI) file, and upload the file to Pearson.

Pearson validates the records and checks for errors. After validation, a School Test Coordinator (STC) enters any subsequent student transfers into or out of the Division directly into Pearson.

Reconciliation of Pearson to Synergy

Using the unique identifier assigned by the State (STI), we compared students registered for the Spring 2019 Non-Writing Tests in Pearson to the students enrolled at RCPS on the last day of school in 2019 as reported in the 2019 Student Record Collection. Four (4) students required additional research:

- One (1) student withdrew from school in May 2018, but re-enrolled in the summer to take a substitute test in August, earning a verified credit. Therefore, while the student was captured and reported on the 2018 spring Student Record Collection, the substitute test information was not submitted through Pearson until spring 2019 (via the spring Extract).
- One (1) student was a regional Special Education student enrolled with another school division but instructed and tested at an RCPS school.
- Two (2) students had erroneously been issued a second STI when transferring between schools. The original STI remained in Synergy at the end of the school year, but was subsequently updated. The State combined the student's testing history under the second STI in Pearson.

These four (4) exceptions represent less than .05% of the 8,780 records in our comparison, and all were satisfactorily explained. We understand that school divisions occasionally make a mistake when entering a student's birthdate or other identifying information when first enrolling a child. When the child transfers to a different school division that then enters the correct data, Pearson is unable to match the student to an existing record and issues a new STI. Data and Analysis states this is not an uncommon occurrence.

Registration for SOL Tests

By comparing end of year enrollment to the SOL Testing Data Extract File for the Spring 2019 Non-Writing Tests from Pearson, we identified 1,147 students who were not registered for an SOL test. We reviewed the records of a sample of 30 of these students to determine if they should have been registered for one or more tests. We determined that 29 (97%) had appropriate reasons for not being registered for an SOL exam, including:

- Already obtaining sufficient verified credits for graduation
- Not enrolled in End-of-Course (EOC) classes
- Special Education student tested through the Virginia Alternate Assessment Program (VAAP)
- Enrollment AFTER spring testing session had commenced
- Chronic absenteeism (15+ days)

We confirmed one (1) qualifying student was not registered for the 11th grade reading SOL. Based on management's review of the documentation, Data and Analysis did not properly mark the student record to complete the registration. The Director attributes the mistake to human error and stated that the student was registered for the reading SOL in the 2020 Spring test cycle.

Our sample was not of sufficient size to enable statistically valid projections. Given the importance of SOL testing, we would have used an expected error rate of zero, making a statistically valid sample unmanageably large. Having identified only one error, we could not cite a control weakness or offer a recommendation. However, we consider the error to be of a material nature.

Required Student Testing

We reviewed a haphazard sample of ten (10) students in grades 8-12 to determine if the students took ALL required SOL tests for the Spring 2019 testing administration based upon their course enrollment. Our testing showed that all 10 students did in fact test appropriately.

Due to a system issue with Synergy, we discovered some verified credits have not mapped over to student transcripts displayed in Synergy. The Director of Data & Analysis had already identified this issue and has been working with the SIS team for resolution, which is anticipated to be completed during 2020.

End of Objective 1

Objective 2: Student Coding

Objective:

Were students properly classified and provided appropriate testing accommodations in accordance with VDOE rules and regulations?

Yes with Qualifications

Scope:

We focused our testing on the spring 2019 Non-Writing SOL exams, and used a sampling approach to test fields pertinent to state accreditation. We did not validate demographic data.

Results:

As the Division Director of Testing (DDOT), the Data and Analysis Department is the point of contact between the school division, the Virginia Department of Education (VDOE) and Pearson. Working with the School Test Coordinators (STC's), some of the Department's key duties as it relates to student coding include:

- Accounting for all students currently enrolled in a course requiring an SOL test
- Verifying that student attributes have been applied correctly and fields are coded appropriately in Pearson
- Adding accommodations, status codes and other test-specific data in Pearson
- Running a series of daily reports and scripts that help to validate testing data
- Running the daily "pulse point" showing accreditation related statistics, such as test scores, expedited re-takes, total test takers, recovery and growth
- Looking for potential anomalies in the testing data

The Data & Analysis Department also oversees the daily Extract, Transfer, and Load (ETL) routine that compares student data in the Pearson testing system with the data in the Division's student information system (Synergy). The ETL runs automatically and reports discrepancies between the two (2) systems that Data and Analysis then corrects in Pearson as appropriate. Prior to the end of July of each year, the Data and Analysis Department performs a final scrub of testing data, working with STC's and Principals to ensure all errors have been corrected. The

Director then enters the Authorization to Proceed (ATP), notifying Pearson and the VDOE to close the test session.

Pearson Data Validity

Per the Virginia Assessment Program Record Description for Student-Level Records Non-Writing Tests 2018-2019, the following are acceptable values for the key fields that were the focus of our testing:

Key Field	Description	Acceptable Values
SOA Adjustment - EL	Designates students who are currently classified as an English Learner (EL) and have been enrolled in a Virginia Public School less than 11 semesters.	Field should contain an Alpha "Y" or be blank
Recently Arrived EL	Designates students who are currently classified as an English Learner (EL) and have been enrolled in U.S. Schools for less than 12 months.	Field should contain an Alpha "Y" or be blank
Transfer	<p>Designates students enrolled from another school division, another state, private school, or home instruction AFTER the 20th instructional day following the opening of school (Grades 3-8).</p> <p>Designates students enrolled from another school division, another state, private school, or home instruction AFTER 20 instructional hours have elapsed since the beginning of the school year following the opening of school. (High School and some Middle School students: End-of-Course tests)</p> <p>Designates students who have transferred out of and back into the division during the school year and have been carried in the division's membership for 50% or less of the school year. (All tests)</p>	Field should contain an Alpha "Y" or be blank

<p>Project Graduation</p>	<p>Designates students in need of verified credits for graduation. Instructional support activities provide intervention and/or remediation to assist targeted students who have received passing grades for standard credit-bearing course(s) but failed the required Standards of Learning (SOL) assessment needed to earn verified credit(s) to complete their diploma requirements. The targets are as follows:</p> <p>* First Priority: Seniors or term graduates lacking verified credits needed to graduate in any core subject (English, Math, History or Science).</p> <p>* Second Priority: Current juniors lacking verified credits in Math (Algebra I, Geometry, Algebra II) or English (English/Reading, or English/Writing).</p> <p>* Third Priority: Current freshmen or sophomores lacking a verified credit in Math (Algebra I, Geometry, or Algebra II).</p>	<p>Field should contain an Alpha "Y" or be blank</p>
<p>Term Graduates</p>	<p>Designates students attempting to accrue sufficient credits to graduate on or before August 31, 2019.</p>	<p>Field should contain an Alpha "Y" or be blank</p>
<p>Retest</p>	<p>Designates students eligible for re-testing per criteria listed in the Retest and Recovery Table from the <u>SOA and Recently Arrived EL Adjustment Reminders School Year 2018-2019.</u></p>	<p>Field should contain an Alpha "Y" or be blank</p>
<p>Recovery</p>	<p>Designates students eligible for recovery per criteria listed in the Retest and Recovery Table from the <u>SOA and Recently Arrived EL Adjustment Reminders School Year 2018-2019.</u></p>	<p>Field should contain an Alpha "Y" or be blank</p>
<p>Testing Status</p>	<p>Designates reason student did not take or complete the required SOL test (Absence, English Learner, Medical Emergency, Student Cheated, Student passed test in a previous administration, Substitute test, EL Exempt Reading, Student Refusal/Disruptive, Parent refusal, or Other as assigned by the VDOE).</p>	<p>Field should contain numeric value of "01, 03, 04, 06, 07, 08, 09, 10, 11, 15, 50, 51" or be blank</p>

Special Test Accommodations	Designates special test accommodations for students with disabilities or for English Learners (EL's) based on what is authorized in the student's IEP, 504 Plan, or EL Plan.	Fields STA-A, STA-B, and STA-Code 1 through STA-Code 32 should contain an Alpha "Y" or be blank
D-Code	Designates students in grades 9 -12 taking grade 8 Reading and/or Grade 8 Math, and pursuing a Standard Diploma.	Field should contain an Alpha "Y" or be blank
Disability Status	Designates students identified as having a disability. Codes 03-10, 12-14, 16, and 19 should be used for students who are eligible for services under the <i>Individuals with Disabilities Education Improvement Act of 2004</i> (IDEIA) and who have Individualized Education Programs (IEPs). Code 15 should be used for students who are eligible for services under Section 504 of the <i>Rehabilitation Act of 1973</i> . If more than one disability exists, the primary disability is selected.	Field should contain numeric value of " 03, 04, 06, 07, 08, 09, 10, 12, 13, 14, 15, 16, 19" or be blank
Temporary Condition	Designates students that do not have an IEP, 504 Management Plan, or EL Student Assessment Participation Plan but who, due to a temporary condition such as a broken arm or injured hand, are in need of a test accommodation to access the SOL tests.	Field should contain an Alpha "Y" or be blank
Formerly EL	Designates students who met the English Language Proficiency (ELP) criteria.	Field should contain numeric value of " 1, 2, 3, 4" or be blank
EL Overall Proficiency Level	Designates the student's ACCESS for ELLs 2.0 Overall Proficiency Level for students who participated in WIDA ACCESS for ELLs 2.0 testing in Spring 2018. <i>The EL Overall Proficiency Level must be blank if "Formerly EL" is populated with a numeric value.</i>	Field should contain numeric value of " 00, 10-60, 99" or be blank

Our review confirmed that all key data fields in the Spring 2019 Pearson extract file contained appropriate data, or were blank.

Student Coding

We reviewed a sample of SOL exams for proper classification based on having one or more of the following key fields marked:

Key Field	Population		Sample		Verified		Exceptions	Exception Rate
	Tests	Students	Tests	Students	Tests	Students		
SOA Adjustment - EL	1,716	584	30	*29	30	29	-	0%
Recently Arrived EL	221	85	20	20	19	19	1	5%
Transfer	1,044	384	30	30	29	29	1	3%
Project Graduation	329	91	20	20	20	20	-	0%
Term Graduates	691	199	20	20	20	20	-	0%
Retest	2,702	2,012	30	30	30	30	1	3%
Recovery	2,949	1,844	30	30	30	30	-	0%
Testing Status	778	541	30	*29	30	29	-	0%
Special Test Accommodations	3,307	1,444	50	50	50	50	4	8%

* One student had two (2) different tests in our sample

Recently Arrived EL Exception

The teacher involved mistakenly recorded the date the student enrolled with the Division as the date the student entered the United States. The designation as a recent arrival entitled the student to a one-time exemption from a reading SOL. However, the student did not opt out, took the reading exam and passed. There was no impact on the Division’s testing results or accreditation.

Transfer Exception

The student involved had transferred into and out of RCPS during the school year, but was enrolled for more than 50% of the school year. The employee who flagged the student as a transfer could not recall any circumstances that might explain the misclassification. This appeared to be an isolated incident of human error. The student was absent during the testing window, but would not have been counted against our Division’s allowable absences.

Retest

In order to qualify for an expedited retake of an SOL test, a student must have a passing grade in the class associated with the test and one of the following:

- The student failed the test by a narrow margin defined as a scaled score of 375-399, or
- The student failed the test with a scaled score below 375, and

- Had a documented extenuating circumstance that prevented him/her from performing at the expected level and/or
- There was a significant discrepancy between the student's SOL test score and his/her typical academic performance

Parental permission was required for 17 of the 30 retests reviewed. Division procedures require that permission be obtained in writing, but do not specify how long the record must be retained. We found that three (3) of 17 (18%) records had been disposed of at the end of the school year. This is consistent with Library of Virginia retention schedules for "Approval/Permission" Records. The VDOE allows parental permissions to be verbal and does not specify how permissions are to be documented. In view of these facts, we did not consider the missing records to be a regulatory compliance issue.

Five (5) of 30 retests we reviewed were given under the "extenuating circumstances" provision. The VDOE's 2019 Test Implementation Manual required school divisions to document extenuating circumstances that supported retesting students under this provision. This documentation was not on file for (1) one student whose original test score was outside of the 375-399 range for retesting. However, the Principal had maintained a list of students with extenuating circumstances that were approved by the Superintendent, which included this student.

Documentation was on file for the remaining four (4) students tested under the "extenuating circumstances" provision. The forms included all required information and were approved by the Superintendent. Based on the discretion allowed by the VDOE and similar circumstances reported by other school divisions as a basis for retesting, we conclude that RCPS administered its retests in accordance with VDOE regulations.

Special Test Accommodations Exceptions

The Special Test Accommodation exceptions resulted from four (4) different students having accommodations marked in Pearson that were not authorized by the student's Individualized Education Program (IEP) or Section 504 Plan:

- Two (2) students were erroneously given the Audio Test Accommodation. One (1) student's IEP authorized the Read-Aloud accommodation, the other student's IEP did not authorize any type of audio or read-aloud accommodation.
- One (1) student was marked as having been given a Dry Erase Board and Additional Writing Implements for a reading test. These accommodations were only authorized for the math test and would not have been useful tools for a reading test. This appears to have been a data-entry error.

- One (1) student was given approved Math Aids for the grade 4 test; the IEP only authorized this accommodation for the grade 5 test.

A committee approves the accommodations granted to each student. All accommodations that are granted must be documented in the student’s IEP, 504 Plan, or EL Assessment Participation Plan.

Students are not required to utilize the accommodations that are available to them. For example, a student who is given extra time to complete an exam may complete the exam during the standard allotted time. In this situation, school staff would not mark the accommodation as having been provided when finalizing the records in the Pearson system after the exam.

The State’s testing regulations specifically state that an irregularity must be reported to the VDOE when a student is provided an accommodation not granted in the student’s IEP, 504 Plan, or EL Assessment Participation Plan.

Testing Status

All students enrolled in a class must be registered for the corresponding SOL test. However, if a student does not take the test, and they do not fit any other testing status, the VDOE has directed school divisions to code the students with a Testing Status of "1" – Absent.

All 30 students we reviewed met the criteria for the applicable testing status and were coded appropriately as noted in the table above. We also confirmed that all 148 tests with a “Testing Status” of “7” (Student Cheated), “50” (Student Refusal/Disruptive), and “51” (Parent Refusal) recorded test scores of zero (0).

Other Data Fields

We did not perform detailed testing of the following key data fields:

Key Field	Population	
	Tests	Students
D-Code	-	-
Disability Status	4,013	1,412
Temporary Condition	38	6
Formerly EL	1,147	431
EL Overall Proficiency Level	2,255	754

Disability Status was not tested separately, as we reviewed students with disabilities in the Special Test Accommodations testing. For our sample of 50 students with special testing accommodations, we confirmed that all students with disability codes 03-10, 12-14, 16, and 19 had a supporting Individualized Education Program (IEP), and that all students with disability code 15 had a 504 Plan.

Temporary Conditions were not tested due to the low volume of tests (38) and students (6) with this code. We did confirm that each student coded with a temporary condition did not have a Disability Status code.

Our EL testing was limited to SOA Adjustment and Recently Arrived EL, due to the more significant impact those codes would have on the Spring testing session. We did not perform any detail testing of Formerly EL and EL Overall Proficiency Levels. However, we did confirm that the "EL Overall Proficiency Level" was blank for all 1,147 students identified as "Formerly EL" students, as required by the VDOE's Spring 2019 *Student Registration Import File Requirements*.

End of Objective 2

Objective 3: Pearson User Access

Audit Objective:

Did management grant employees appropriate access rights in the Pearson testing system based on assigned responsibilities?

Yes with Qualifications

Scope:

We reviewed current processes in place for setting up user accounts, assigning roles, and deleting access in Pearson upon employee termination. Our testing focused on current user roles and permissions in place for the FY 2019-20 school year to determine that access is appropriately assigned.

Results:

In Virginia's student testing system (Pearson), user permissions control access to view and modify data. Roanoke's Data & Analysis Department is responsible for setting up and managing RCPS users in Pearson based on roles assigned by the Central Administration and Principals. All Data & Analysis employees are assigned "Division Director of Testing" (DDOT) access in Pearson, enabling them to add and delete users, unlock accounts, and re-set passwords. Passwords are not viewable in the system, even to Data & Analysis personnel. The Pearson system forces all users to change their password every 42 days.

Prior to the beginning of each school year, Principals provide the names of the employees designated as "Student Testing Coordinators" (STCs) for their school site to Data & Analysis. When Data & Analysis sets up the user in Pearson, the system emails him or her a link to initiate access and establish a secure password.

During the course of the school year, the Information Technology Department runs a daily interface file that identifies any Pearson user not shown as an active employee in the Division's Human Resources system. The Data & Analysis department periodically reviews the interface file and inactivates user accounts accordingly.

Pearson Access Review

As of the date of our field work, a total of 237 employees had some type of Pearson access:

- 179 employees across 28 different school locations
- 46 employees at RCPS Administration in the following departments:

- Data & Analysis
 - Technology
 - Human Resources
 - Teaching and Learning
 - School Counseling
 - Special Education; and
- 12 Technology Teachers assigned to multiple school locations.

Some of the Pearson system key roles and their primary functions are as follows:

Division DOT	<ul style="list-style-type: none">•Grants users rights to most, but not all Pearson functions•Allows modification of alternate assessment data, groups, import/export files, sessions, students and users
STI Division Admin Account Manager	<ul style="list-style-type: none">•Access to various rights, notably the addition of students, and creation/deletion of users at all division schools
STI Division Admin Data Manager	<ul style="list-style-type: none">•Many of same permissions as "account manager"role•Does NOT allow creation/deletion of users
STI School Admin Account Manager	<ul style="list-style-type: none">•Many of the same permissions as the "division account manager" role•Limited to assigned school(s)•Does NOT allow access to the import/export functions
STI School Admin Data Manager	<ul style="list-style-type: none">•Many of the same permissions as the "account manager" role•Limited to assigned school(s)•Does NOT allow creation/deletion of users
School Test Coordinator	<ul style="list-style-type: none">•Add/remove student tests to a group•Create, modify and delete groups/classes•Create and edit sessions•Create and edit student test information (not results)•Register and modify a student in an administration
Division Project Manager	<ul style="list-style-type: none">•Add/remove student tests to a group/class•Create and modify groups/classes•Import/export student information
School Project Manager	<ul style="list-style-type: none">•Less access than the "division project manager"•Groups/classes search page•Organization search page•Operational reports

We reviewed the PearsonAccess User Export as of 11/12/19 to evaluate access assigned to RCPS employees based on their job responsibilities for the 2019-20 school year. Our review identified several users with system permissions that were not consistent with the access typically assigned to users with similar roles and responsibilities:

- 26 school-level employees had the School Admin Account Manager role
- 2 employees outside of Data and Analysis had the Division DOT role
- 1 Teacher had two (2) active user names granting different roles
- 1 Supervisor outside of the IT Department had the Division Project Manager role

Every access right given to a user is an additional exposure point that involves some level of risk. Users with access to perform functions for which they have not been trained could mistakenly modify a record. Inquisitive users could discover weaknesses in the system that present an opportunity for malicious or advantageous actions. Providing access beyond that needed to perform assigned responsibilities increases risks in ways management may not envision.

We also identified four (4) terminated employees whose Pearson access was not disabled for more than 30 days after their termination date with the school division. In January, the Data and Analysis Department implemented a change in the nightly comparison of Pearson users to active employees in the Division's Human Resources system. The Pearson system now sends an automated email notification to Data and Analysis identifying Pearson user accounts that should be disabled. The user accounts continue to appear on the daily automated email notification until their access is disabled in Pearson and the file refreshed.

Our assessment of the risks associated with excessive system rights did not identify any specific high impact exposures. However, unforeseen risks may exist that could be impactful to the Division. More careful management of user access rights would further mitigate risks and strengthen the Division's system of controls over test administration.

End of Objective 3

SUMMARY OF MANAGEMENT ACTION PLANS

Management Action Plan – Documented Procedures	
<p>The Department of Data and Analysis will develop documentation of internal controls to limit risk. The process documentation will include a detailed description of how to perform critical business processes.</p> <p>Each business process will include (if applicable):</p> <ul style="list-style-type: none"> • policies, • checklists, • tutorials, • screenshots, • and process mapping. <p>Documenting each process will benefit the organization by improving processes, assist with training employees, preserve department knowledge and guide for mitigating risks and maintaining operational consistency.</p>	
Assigned To	Target Date
Kim Tresky – Assistant Director of Data and Analysis	August 2020

Management Action Plan – Extenuating Circumstances Documentation	
<p>The Department of Data and Analysis will develop an audit report containing students participating in SOL retests that do not meet the criteria for an expedited retake. The listing will be used to confirm approved forms have been filed in accordance with the documented process and irregularities filed for administering retests without approval.</p> <p>All forms submitted as an extenuating circumstance are retained for one full year.</p>	
Assigned To	Target Date
Michael Trussell – Director of Data and Analysis	Complete

Management Action Plan – Pearson User Access	
<p>The Department of Data and Analysis will develop role based matrix for assigning permissions in PearsonAccessNext.</p> <p>The role based matrix will allow to mitigate risks by</p> <ul style="list-style-type: none"> • assigning user access consistent with each employee responsibility and • modify user access as responsibilities change. <p>The matrix will be reviewed annually to ensure each role has the minimum assigned permissions to perform the defined roles.</p>	

The Department of Data and Analysis established an automated notification process to identify when an employee leaves the division and action is taken to disable/delete user access in PearsonAccessNext.	
Assigned To	Target Date
Dana Fizer – Testing and Data Specialist	June 2020

Management Action Plan – Special Test Accommodations	
<p>The Virginia Department of Education (VDOE) implemented a statewide system for students with individualized education plans (IEP) in the 2019-2020 school year. The system provides functionality to develop IEP’s, monitor student progress and improve data-driven decisions.</p> <p>The Department of Data and Analysis coordinated with</p> <ul style="list-style-type: none"> • Virginia Department of Education (VDOE) development team to establish electronic tracking of testing accommodations for students with disabilities and • Supervisor of EL and World Language Programs to establish electronic tracking of testing accommodations for English Learners. <p>This enhanced visibility of testing accommodations will enable auditing capabilities to mitigate risk.</p>	
Assigned To	Target Date
Michael Trussell – Director of Data and Analysis	Complete

End of Summary of Management Action Plans

MANAGEMENT COMMENTS



ROANOKE CITY
PUBLIC SCHOOLS

Strong Students. Strong Schools. Strong City.

May 4, 2020

Municipal Auditing Department

RCPS Data and Analysis Audit

Report Number: 20-013

Audit Plan Number: 20-108

Dear Mr. Harmon,

I would like to thank your team for the detail shown in understanding the Virginia Department of Education (VDOE) Standards of Learning requirements and Roanoke City Public Schools Department of Data and Analysis role in managing the student assessment process.

I appreciate the opportunity to review and respond to the above referenced audit report. The following comments are provided for inclusion in the final report.

Objective 1 – Student Registration

The Department of Data and Analysis acknowledges and agrees with the conclusion of the Municipal Auditing Department that the process of registering students for the appropriate Standards of Learning (SOL) assessments are designed and operating to ensure all Roanoke City Public School students are registered and reported correctly in PearsonAccessNext system.

Objective 2 – Student Coding

The Department of Data and Analysis acknowledges and agrees with the Municipal Auditing Department that coding of testing accommodations was substantively correct. All division employees are working earnestly to ensure students are properly classified in the PearsonAccessNext system. Although the number of exceptions noted by the Municipal Auditor were noted as relatively small, each item will be reviewed and appropriately address the situation.

Objective 3 – Pearson User Access

The Department of Data and Analysis acknowledges and agrees with the conclusion of the Municipal Auditing Department that consistent role based permissions need to be established to provide users with the principle of least privilege. These permissions however are based on the individual responsibilities of each staff member at the school level and have the possibility of variations (multiple roles). Although the mitigating risk is not high, the department has taken steps to strengthen the controls of user access in PearsonAccessNext.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Michael P. Trussell". The signature is written in a cursive style with a large initial 'M' and 'T'.

Michael Trussell

Director of Data and Analysis

ACKNOWLEDGMENTS

We would like to thank the Data and Analysis Department, specifically Michael Trussell and Kimberly Tresky, for their cooperation and assistance throughout the audit. We would also like to thank Hayley Poland for her assistance regarding Individualized Education Plans (IEPs) and the corresponding impact on special accommodations for SOL testing.

Cari Spichek, CIA
Senior Auditor

Brian Pendleton, CPA
Senior Auditor

Drew Harmon, CPA, CIA
Municipal Auditor