



**A Report to the
Audit Committee**

Mayor
Megan Barry

Chief Operating Officer
Richard Riebeling

Audit Committee Members
Robert Brannon
David Briley
John Cooper
Talia Lomax-O'dneal
Bob Mendes
Brack Reed

**Audit of Metropolitan Nashville
Public Schools Performance
Reporting Process – Public Report**

December 6, 2016

Metropolitan
Nashville
Office of
Internal Audit

EXECUTIVE SUMMARY

December 6, 2016



Why We Did This Audit

When in 2015, local news reports started questioning the integrity of the MNPS performance reporting process, the MNPS Board of Education requested the Metropolitan Nashville Office of Internal Audit to review the performance reporting process.

What We Recommend

- Revise policies to ensure clear and consistent practices in data protection and grade changes.
- Obtain reasonable assurance of the integrity and accuracy of data provided by charter schools.
- Adopt district-wide best practices for information system and data access.
- Formal procedures for application change control should be established.

AUDIT OF METROPOLITAN NASHVILLE PUBLIC SCHOOLS PERFORMANCE REPORTING PROCESS

BACKGROUND

Metropolitan Nashville Public Schools, hereinafter referred as MNPS, student information systems are essential for communicating student, school, and district performance to decision makers and citizens. MNPS provides information from these systems to the Tennessee Department of Education for their annual district and school accountability report. Also, MNPS assesses school performance using its own Academic Performance Framework.

Information systems supporting performance reporting systems is comprised of multiple applications. During this audit, the main application was the *Powerschool School Management System* which captures data from various school processes and interfaces with Tennessee Department of Education information systems. *Infinite Campus* replaced *PowerSchool School Management System* starting in school year 2016-2017.

OBJECTIVES AND SCOPE

The objective of this audit is to determine internal controls effectively ensure the integrity of information used for reporting district, school, and student performance. Audit procedures focused on the following:

- Processes where data is generated and input by schools.
- Student information systems data integrity controls.

Records and documentation reviewed cover the school years 2014-2015 and 2015-2016. System configuration was reviewed as of April 2016.

WHAT WE FOUND

Several procedures regarding data access and grade changes should be revised for clarification and consistent application at all schools. MNPS should establish procedure to obtain assurance of the integrity of data reported by charter schools.

The data warehouse application effectively validates data input by schools. However, historical records of input errors could be further analyzed so that weak controls in source information systems can be identified and improved.

Employee responsibilities, school assignments, and employment status were not updated promptly in EnterpriseOne resulting in prolonged unneeded access privileges in student information systems.

GOVERNANCE

MNPS is governed by the Metropolitan Board of Public Education. The Board consists of nine members, one from each district, and has primary authority over matters related to the schools. MNPS is accountable for following educational standards set by the Tennessee Department of Education and related State and Federal laws and regulations.

The Director of Schools is responsible for management and direction of the schools. Each principal manages the teachers and administrative staff at their own school and reports to the Director.

MNPS is the chartering authority of 31 charter schools (school year 2015-2016) which operate autonomously under the stipulations of their agreements with the district.

PERFORMANCE REPORTING – INFORMATION SYSTEMS AND PROCESS DESCRIPTION

In 2015, local news reports started questioning the integrity of the MNPS performance reporting process. Concerns related to performance reporting processes resulted in an MNPS internal assessment and a review of compliance with State of Tennessee education laws and rules on end-of-course exams by the Tennessee Department of Education. Also, the MNPS Board of Education requested the Metropolitan Nashville Office of Internal Audit to review the controls which ensure the integrity of the performance reporting process.

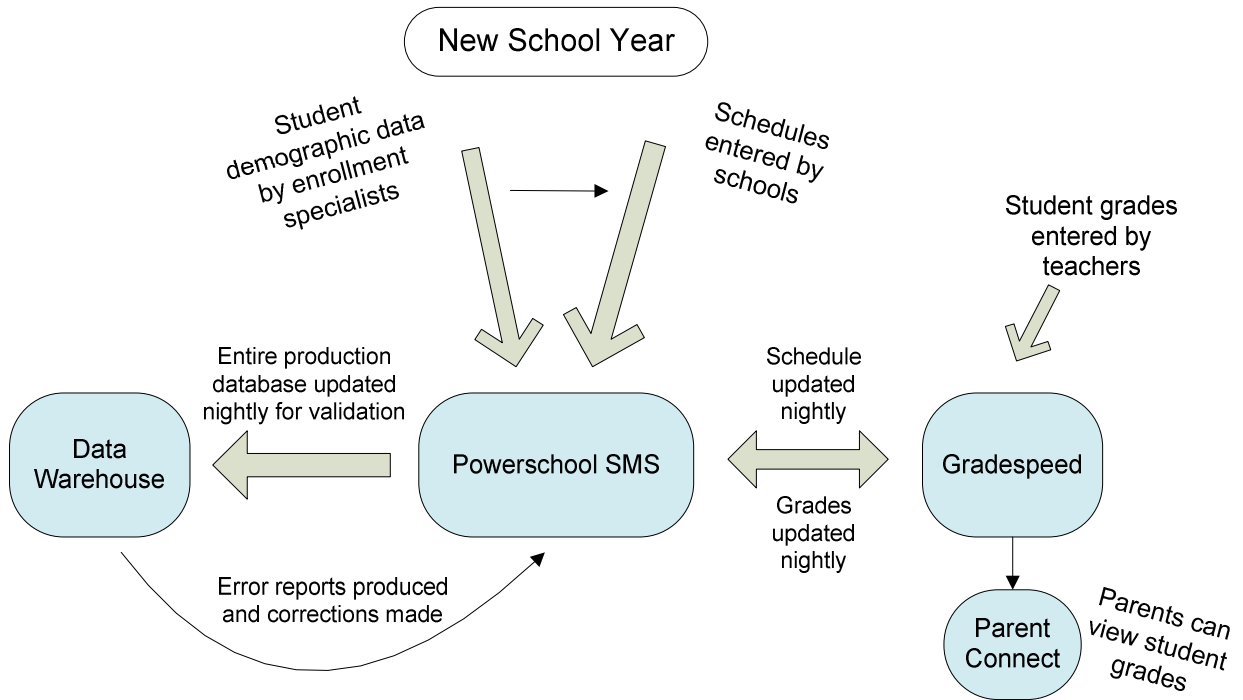
MNPS student information systems are essential for communicating student, school, and district performance to decision makers and citizens. The focus of this audit was on the internal controls for the student information systems and the school performance reporting processes. The performance reports are the Tennessee Department of Education “Report Card” performance reports (154 school reports for 2014-2015 school year) and MNPS Academic Performance Framework (153 school reports for 2014-2015 school year).

INFORMATION SYSTEMS

The student management systems are the hub of data coming from all schools. It is a major source of student and school performance information. The primary application is the *PowerSchool School Management System*, a comprehensive application that captures student demographic information, enrollment, scheduling, academic, and disciplinary records. The following applications are some key sources of information for the *PowerSchool School Management System*:

- *GradeSpeed* - Application mandated for teachers to record student course grades.
- *A+* - application that schools use for student credit recovery.
- *SchoolNet* - Web application providing additional resources for teachers and students, where the ACT benchmark tests are available.
- *EnterpriseOne* - Enterprise system providing teacher names and other related information.

Exhibit 1 - MNPS Student Information System



Note: Infinite Campus replaces *PowerSchool School Management System* and *GradeSpeed* starting in school year 2016-2017.

Tennessee Department of Education Information Systems

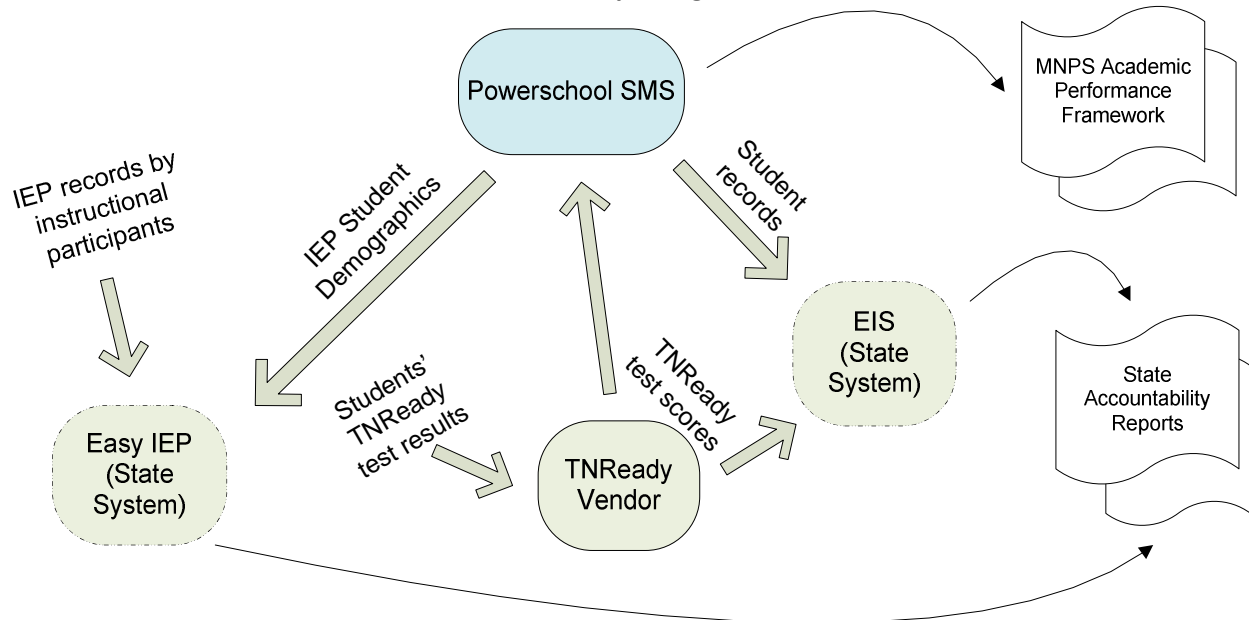
The *Education Information System* is employed by the Tennessee Department of Education to keep track of student records statewide. The system also has an error checking mechanism that produces error reports daily. MNPS data specialists work with schools to make corrections into the *PowerSchool School Management System* from the error reports.

The Tennessee Department of Education allows each district to have a local administrator who can approve and grant user access to the system based on business needs and location. Most of the access rights are view only with download capability. One permission allows direct editing of information in the *Education Information System*.

The Tennessee Department of Education also manages a web-based program, *EasyIEP*, for statewide individualized education programs. MNPS has an approved local administrator that approves and grants access to users in the district. Users include a wide range of specialists, school counselors, psychiatrists, and so forth. They record progressive student information directly into the *EasyIEP*. An automated nightly process extracts special education student enrollment from the *PowerSchool School Management System* into a spreadsheet saved on a file server before it uploads into the *EasyIEP* system.

DISTRICT AND SCHOOLS PERFORMANCE REPORTING PROCESS

Exhibit 2 - Reporting Process



Tennessee Department of Education District “Report Card”

The Tennessee Department of Education releases an official “Report Card” each year on the performance of the districts and individual schools. The “Report Card” presents multiple aspects of performance measures including Value-Added, College/Career Readiness, Accountability, Education Climate, and Teachers Qualification.

The Value-Added and College/Career Readiness evaluation is based on a three-year average for grades 3-8 on four subjects, End Of Course and ACT scores for high schools, graduation rate, and ACT benchmark, and so forth.

The accountability system is based on measurements for two aspects, Achievement Measure and Gap Closure Measure. Achievement Measure evaluates whether schools meet their achievement targets established by the Tennessee Department of Education for each school year, and Gap Closure Measure evaluates progress of special groups of students.

Exhibit 3 - District Accountability Model



Source: Tennessee Department of Education

Performance data of interest is focusing on Math and Reading/Language (grades 3-8), Algebra I and II and English II and III (grades 9-12), and student demographic information for subgroup participation and improvement. The Tennessee Department of Education requires all districts to provide needed data into its *Education Information System* following an established monthly schedule. See Appendix A for the 2014-2015 Academic Year State Report Card Dashboard and the [Tennessee Department of Education District and School Report Card](#) internet site for additional detail and background.

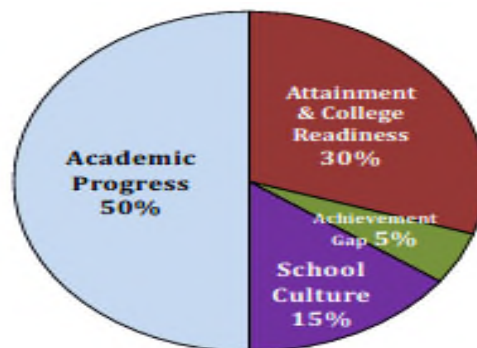
Metropolitan Nashville Public Schools – Academic Performance Framework

MNPS started its own internal performance measurement methodology named Academic Performance Framework two school years ago. This framework measures performance based on four indicators:

- Academic Progress
- Attainment and College Readiness
- Achievement Gap
- School Culture

The schools are measured in the following categories: Excelling, Achieving, Satisfactory, Review, or Target. Reports are presented to the Metropolitan Board of Public Education and Chamber of Commerce. MNPS Department of Research, Assessment and Evaluation extracts data for this analysis report from the same student information system feeding the Tennessee Department of Education “Report Card” performance reporting system. See Appendix B for an example of the Academic Performance Framework report and the [MNPS Academic Performance Framework](#) internet site for individual school results and additional background.

Exhibit 4 - MNPS Academic Performance Framework



Source: MNPS Academic Performance Framework: Executive Summary; MNPS Department of Research, Assessment, and Evaluation

Enrollment Process

Student demographic information is mainly captured in the enrollment process. This process is complex with multiple possible scenarios depending on the student situation (choice schools, charter schools, pre-kindergarten, kindergarten, etc.) Enrollment specialists at the twelve MNPS Enrollment Centers work with students who are new to the district or switching schools within the district, ensuring registrations forms are filled out properly with required information. These specialists can verify information with information residing in the Tennessee Department of Education *Education Information System*, or manually transcribe data on the forms into *PowerSchool School Management System*. The specialists have to remove enrollments for those students after an effort is made to locate the student. Also, some magnet, pre-k, and charter schools do their own enrollments. Students may move out of the district without notifying their assigned schools

The *PowerSchool School Management System* is able to help the enrollment process for some students because it is able to automatically roll up students that remain at the same school into the next school year.

Scheduling Process

Master schedules are developed at each school and implemented in the *PowerSchool School Management System*. This consist of updating teacher staff information, adding courses and course meeting patterns, assigning students to homerooms and classes, attaching grading periods, accommodating changes in schedule information, and other related activities. *PowerSchool School Management System* updates *GradeSpeed*, which creates classes and grade books. Schools should comply with specific rules for student scheduling required by the Tennessee State Board of Education. Automated nightly processes are in place to update the *PowerSchool School Management System* and *GradeSpeed* with any changes made during the day.

Assessment Process

MNPS has a procedure (last revised in July 2013) that all schools should follow for grading of students' performance. The procedure breaks all grades into three tiers and lays out instruction for grading each tier, with the philosophy for teachers to consider differences of students and assess their proficiency in multiple ways. It is mandatory that teachers use *GradeSpeed* to keep term grades. *GradeSpeed* is locked from any changes two days before student report cards are issued and after semester grades are updated into the *PowerSchool School Management System*.

The Grading procedure authorizes the teacher of record or an executive principal to initiate a grade change with documentation and rationale provided. Principals should only modify a grade given by a teacher when it is determined that the grade was based on inaccurate data, or the procedure was not followed. Although not mentioned in the procedure, it appeared to be the practice at schools that grade changes are normally made into the *PowerSchool School Management System* by school counselors. The *PowerSchool School Management System* has a transaction log that tracks a broad list of changes made to student records. The procedure requires an approved "Grade Change Request" form to be filed with the student cumulative record.

MNPS has a Course Recovery and Grade Improvement procedure to provide students with an opportunity to improve their grades. This procedure was last revised in June 2016 to comply with new rules from Tennessee Board of Education, and lays out the purpose, criteria, and methodology for when this procedure may be used for students.

Assessments through Tennessee Department of Education mandatory TNReady tests, including TCAP for 3-8 grades and subject End of Course exams for 9-12 grades, should follow the Test Administration Manual prescribed by the Tennessee Department of Education. These tests are not yet online ready for all grade levels. Paper and pencil format is still in use with hard copies of tests provided by the State vendor. Test result packets should be returned to the Tennessee Department of Education vendor for scoring. The vendor enters the results in its system, which is accessible to a designated MNPS employee in the Research and Assessment Department. That employee is then responsible for downloading and formatting the test result before uploading results into the *PowerSchool School Management System*.

Charter Schools

MNPS procedures are not mandated to charter schools for the processes described in the previous paragraphs. However, performance of charter schools is included in the Tennessee Department of Education accountability report for MNPS. Charter schools enter daily attendance and nine-week grades into the *PowerSchool School Management System* along with enrollment, scheduling, student demographics, and behavior offenses. MNPS data specialists work with charter schools to help them identify data issues, make recommendations for correction, and offer guidance on data reporting rules. Some charter schools use their own system of choice to keep student records along with *PowerSchool School Management System*. They manually transcribe daily attendance and nine-week grades from their system into the *PowerSchool School Management System* throughout the school year.

MNPS performs annual evaluation of charter schools using the MNPS Academic Performance Framework.

Data Quality Assurance Process

MNPS employs a data warehouse application that refreshes itself through an automated nightly process with data from the *PowerSchool School Management System* and other applications. State and District reporting requirements are implemented into the data warehouse as business rules to validate school inputs. Data errors are reported on daily basis from *PowerSchool School Management System* and the MNPS Data Warehouse that are available to the team of 18 data specialists, who reviews the errors and works with schools for corrections in the *PowerSchool School Management System*. Also, data quality dashboards are available to the schools, data specialist, and any user assigned a role in the *PowerSchool School Management System*.

MNPS data analyst runs extracts from the *PowerSchool School Management System* and uploads these files to the Tennessee Department of Education *Education Information System* according to an established reporting schedule. Files extracted from the *PowerSchool School Management System* are temporarily saved in a designated folder on a file server.

OBJECTIVES AND CONCLUSIONS

1. *Are internal controls that ensure the integrity of information used for reporting district, school, and student performance effective?*

Generally, yes.

Supporting Objectives and Conclusions

- a. *Are MNPS performance reporting processes, where data is generated and input by schools, following district procedures?*

Generally, yes. MNPS has procedures covering the key processes which have direct impact on the integrity of data to be reported. However, the following areas can be further improved:

- Controls can be strengthened in processes and applications to help improve process efficiency and data accuracy. (See Observation A.)
- The Grading procedure requires a form to be filled for grade changes but is not clear whether this form becomes part of the cumulative record (permanent) and how long those approved forms should be kept. This form is not included in the document list in the Record Retention section of the Cumulative Student Records Requests Procedure. (See Observation B.)
- MNPS lacks assurance of the integrity of data provided by charter schools. (See Observation C.)

- b. *Are student information systems controls consistent and working as recommended by the widely accepted Control Objectives for Information and Related Technology Framework published by the Information System Audit and Control Association?*

Generally, yes. Student information systems internal controls can be improved in information technology application change control and information security enabling processes. (See Observations D and E.)

It should be noted that the *PowerSchool School Management System* and *GradeSpeed* were replaced by a new school management system, *Infinite Campus*, in July 2016. Observations from the old system should serve as reminders to ensure the new system is configured to align with information systems internal control standards.

AUDIT OBSERVATIONS – PART I

The audit observations are primarily based on comparing practices for supporting applications in student information system at MNPS to best practices and control frameworks. The control frameworks included *Control Objectives for Information and Related Technology (COBIT)* published by the Information System Audit and Control Association, and *Committee of Sponsoring Organizations of the Treadway Commission –Internal Control – Integrated Framework (COSO)*.

Observation A – Improve Data Validation Controls through Efficient Use of Data Warehouse

There is no procedure to identify possible corrective actions that may prevent or minimize data quality error trends. Review of the new Infinite Campus features showed that some input errors listed in Exhibit 5 below potentially could be reduced through configuration settings.

Exhibit 5 – Top Ten 2015 – 2016 School Year Data Errors

Occurrences	Error Description
1,995	No schedule records for enrolled student.
1,614	Student standard day not equal to student scheduled day - primary enroll
625	Discipline Action with mismatched attendance code
541	Student must be age 3 by August 30 for grade P3
453	Attendance code with no discipline incident
534	Partial enrollment with no active primary
319	Student must be age 6 by August 15 for grade 1
240	Student must be age 5 by August 15 for grade K
166	Year entered 9 th grade greater than current year
149	Completion document (diploma) found with no completion date

Source: Office of Internal Audit Analysis of MNPS Data Warehouse Error Details Table

There are 18 data specialists in the Information Management and Decision Division and 2 data quality specialists in the Research and Evaluation Division, who are constantly working with the individual schools to correct these errors. Improving controls can, in turn, improve efficiency of the data quality process as well.

Criteria:

COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

Recommendation for management of the Metropolitan Nashville Public Schools:

Establish a procedure to review and analyze error trends captured by the Data Warehouse so that relevant data entry controls in applications or control activities in the process can be improved.

Observation B – Review of Grade Change Procedure

Not all grade change forms are kept at the schools, and no evidence is available to show that anyone from either the schools or the district verifies that grade changes logged in the system are supported by change forms. MNPS has a Grading procedures stipulating that the change form should be prepared and submitted by the students’ teacher of record to the executive principal for approval. The MNPS “Grade Change Request” form requires signatures from the teacher of record, the executive principal, and the school counselor. No records schedule exists for this form.

An audit sample, selected from 12 schools, of 417 grade changes logged in the *PowerSchool School Management System*, resulted in MNPS not being able to locate 307 “Grade Change Request” forms (74 percent) to support approval of the grade changes. Some of the changes without forms are for students who transferred into MNPS during the school year. Counselors were not clear on whether the “Grade Change Request” form is required in such cases. Some schools claimed that “Grade Change Request” forms were disposed after students graduated.

Criteria:

COSO, Control Activities — Principle 12— The organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

Recommendation for management of the Metropolitan Nashville Public Schools:

1. Clarify in the Grading procedure or records retention schedule how long and where approved “Grade Change Request” forms should be stored.
2. Establish a procedure to reconcile grade changes recorded in the student information system to approved “Grade Change Request” forms.
3. Evaluate the feasibility of configuring the audit log to track changes only made to existing grades, or modify the change form to include a check box to identify changes for transfer-in students.

Observation C – Charter Schools Data Accuracy

Neither the charter school contract nor the performance rubric used to evaluate charter schools addresses student information data accuracy requirements.

Criteria:

COSO, Control Activities — Principle 15—The organization communicates with external parties regarding matters affecting the functioning of internal control.

Recommendation for management of the Metropolitan Nashville Public Schools:

Establish monitoring procedures to ensure data accuracy controls exist and are effective in all charter school information systems used for performance reporting.

Observation D – Application Change Control Procedure

There is no formal procedure for managing application changes to production student information systems. Although some documentation of application changes exist in help desk ticket descriptions,

other changes are made into production directly without tracking records. No evidence of management approval and/or review of application changes is available.

Criteria:

- COSO, Control Activities—Principle 11— The organization selects and develops general control activities over technology to support the achievement of objectives.
- COBIT, Build, Acquire, and Implement— BAI06 Manage Change— Manage all changes in a controlled manner, including standard changes and emergency maintenance relating to business processes, applications, and infrastructure. This includes change standards and procedures, impact assessment, prioritization and authorization, emergency changes, tracking, reporting, closure, and documentation.

Recommendation for management of the Metropolitan Nashville Public Schools:

Adopt a formal district-wide application change control procedure for student information systems. The framework should define the processes for change request, approval, implementation, and review.

AUDIT OBSERVATIONS – PART II - CONFIDENTIAL

Due to the sensitive information included in this report section, which could detail vulnerabilities, weaknesses, and possible threats to MNPS information technology services, the distribution for this section is limited to management of MNPS and the Metropolitan Nashville Government. This exemption is granted by Tennessee Code Annotated § 10-7-504 (i) (1) “Information that would allow a person to obtain unauthorized access to confidential information or to government property shall be maintained as confidential.”

GOVERNMENT AUDITING STANDARDS COMPLIANCE

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

METHODOLOGY

To accomplish our audit objectives, we performed the following steps:

- Interviewed key personnel within MNPS, schools, and State agency.
- Reviewed and analyzed documentation for compliance with the Tennessee Code Annotated, Metropolitan Nashville Code of Laws, and other applicable laws, regulations, and policies.
- Evaluated internal controls currently in place.
- Reviewed sample selections to determine the effectiveness of internal controls.
- Considered risk of fraud, waste, and abuse.
- Considered information technology risks.

AUDIT TEAM

Mark Swann, CPA, CIA, CISA, ACDA Metropolitan Auditor

Qian Yuan, CIA, CISA, ACDA, Quality Assurance

Laura Henry, CFE, Auditor-in-Charge

Joe McGinley, CISA, CISSP, Staff Auditor

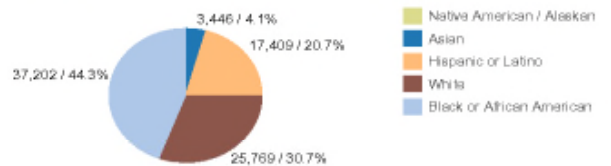
APPENDIX A – TENNESSEE DEPARTMENT OF EDUCATION REPORT CARD DASH BOARD– SCHOOL YEAR 2014-2015 EXAMPLE

Profile

School Year: 2014-2015
 District Name: Davidson County
 School Name: All Schools

Davidson County, All Schools	
Education Commissioner	Dr. Candice McQueen
District Name	Davidson County
District Director	Chris Henson
District Grades Served	PK-12
District Address 1	2601 Bransford AV
District City, ST ZIP	Nashville, TN 37204
Safe School Schools	All Schools Safe Schools 154

Student Ethnicity: Davidson County, All Schools

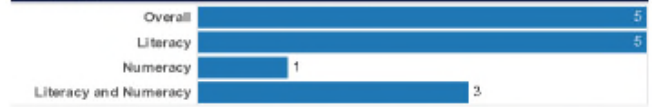


Values reflect October 1 enrollment data

Students & Teachers: Davidson County, All Schools

Teachers	5,314
Administrators	601
Students	84,070
English Learner Students	13,655
English Learner Student Percent	16.2%
Economically Disadvantaged Student Percent	75.3%
Students with Disabilities	10,465
Students with Disabilities Percent	12.4%
Per-Pupil Expenditure	\$11,496.30

TVAAS Composites: Davidson County, All Schools



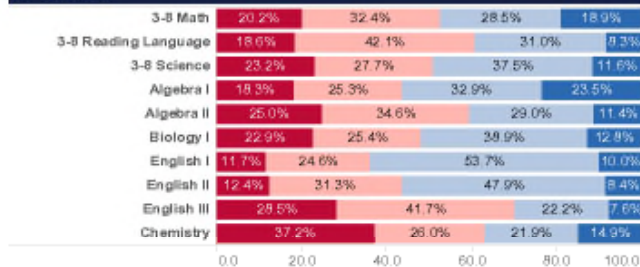
The Tennessee Value-Added Assessment System (TVAAS) is a statistical analysis used to measure the impact of districts, schools and teachers on the academic progress rates of groups of students from year-to-year. The TVAAS Composite listed here are scores that assess growth at the school or district level based on student performance on statewide assessments across all available subjects and grades. For districts that opted to test students in grades K-2 in years in which they are available, those scores are included in the composite.

The file available at the below link indicates which districts had early grades data included in their composites each year. <http://www.k-12.state.tn.us/update/other/early-grades-tvaas-districts.xlsx>

TVAAS Composites are reported on a 1-6 scale and are one-year scores. Levels 4 and 5 indicate that a district or school is exceeding the expected growth, Level 3 indicates that they are making about the expected growth, and Levels 1 and 2 indicate that they are making less than the expected growth. The Overall TVAAS Composite includes all available data from the K-2 (GAT-10) assessment and from all applicable TCAP and EQC tests. The TVAAS Literacy Composite includes all literacy-focused tests included in the Overall TVAAS Composite. The TVAAS Numeracy Composite includes all numeracy-focused tests included in the Overall TVAAS Composite. The TVAAS Literacy and Numeracy Composite includes all tests included in the Literacy Composite and the Numeracy Composite. More detailed TVAAS data can be viewed on the Public TVAAS site (<https://tvaas.tn.gov/web/home.html>).

■ % Below Basic ■ % Basic ■ % Proficient ■ % Advanced

Achievement: Davidson County, All Schools



The Tennessee Comprehensive Assessment Program, or TCAP, is a set of statewide assessments given in Tennessee to measure students' skills and progress. Students in grades 3-8 take the Achievement Test, and high school students take End of Course exams for various subjects. Student results are categorized as below basic, basic, proficient or advanced. Students that are proficient or advanced are commonly considered to be at or above grade level. Subjects with fewer than 10 valid tests and/or subjects with at least 99 percent or less than 1 percent of students scoring in any one proficiency category are suppressed in accordance with federal privacy laws.

Average ACT Composite: Davidson County, All Schools



ACT is a national college admissions exam that includes subject level tests in English, Math, Reading and Science. Students receive scores that range from 1 to 36 on each subject and an overall Composite score. All Tennessee students are required to take the ACT in 11th grade.

Graduation Rate: Davidson County, All Schools



The Graduation Rate measures the percentage of students who graduated from high school within four years and a summer out of those students that entered the ninth grade four years earlier.

APPENDIX B – MNPS ACADEMIC PERFORMANCE FRAMEWORK SCHOOL YEARS 2012-2013 TO 2014-2015 EXAMPLE

MNPS Academic Performance Framework (HS)

Schl #	School	Success Rate (Percent Proficient/Advanced)						Percent 21+ on ACT						Graduation Rate					
		2013 % P/A	2013 P/A % of Pts	2014 % P/A	2014 P/A % of Pts	2015 % P/A	2015 P/A % of Pts	2013 ACT% 21+	2013 ACT % of Pts	2014 ACT% 21+	2014 ACT % of Pts	2015 ACT% 21+	2015 ACT % of Pts	2013 Grad Rate	2013 Grad % of Pts	2014 Grad Rate	2014 Grad % of Pts	2015 Grad Rate	2015 Grad % of Pts
720	Acad at Hickory Hollow	7.0	0.0%	0.0	0.0%	23.3	6.1%	0.0	0.0%				68.9	22.2%	57.6	0.0%	71.1	27.7%	
614	Academy at Old Cockrill	14.2	0.0%	28.6	15.6%	26.8	12.4%	7.7	8.1%	18.2	19.1%	17.6	18.6%	66.9	17.2%	55.1	0.0%	63.9	9.8%
612	Academy at Opry Mills	46.7	48.5%	5.3	0.0%	62.5	77.3%	0.0	0.0%	5.3	5.5%	27.8	29.2%	48.3	0.0%	73.2	33.0%	56.7	0.0%
20	Antioch HS	43.4	42.5%	45.3	46.1%	46.8	48.7%	20.2	21.3%	18.3	19.3%	20.6	21.6%	75.2	38.0%	75.2	38.1%	77.7	44.3%
77	Cane Ridge HS	38.0	32.7%	39.2	34.9%	48.5	51.8%	15.5	16.3%	16.0	16.8%	17.3	18.3%	77.8	44.5%	82.5	56.3%	82.8	56.9%
443	Cora Howe School	23.9	7.2%	21.7	3.1%	28.6	15.6%					0.0	0.0%	50.0	0.0%	50.0	0.0%	44.4	0.0%
203	East Nashville School	39.7	35.7%	43.7	43.1%	61.7	75.8%	24.6	25.9%	23.4	24.6%	17.4	18.3%	100.0	100.0%	100.0	100.0%	99.3	98.3%
245	Glencliff HS	42.9	41.6%	40.3	36.9%	40.1	36.5%	12.3	12.9%	12.9	13.6%	15.0	15.8%	69.9	24.8%	76.3	40.8%	80.8	51.9%
302	Harris-Hillman			83.3	100.0%													0.0	0.0%
335	Hillsboro HS	47.2	49.5%	50.1	54.7%	56.3	66.0%	38.3	40.3%	44.4	46.8%	39.6	41.7%	84.2	60.5%	82.4	55.9%	87.1	67.8%
340	Hillwood HS	42.4	40.7%	48.6	52.1%	49.3	53.3%	28.1	29.6%	28.9	30.4%	38.5	40.5%	83.8	59.5%	82.8	57.1%	84.7	61.6%
355	Hume Fogg Magnet	97.7	100.0%	98.2	100.0%	97.1	100.0%	94.8	99.8%	97.8	100.0%	95.2	100.0%	98.7	96.6%	100.0	100.0%	99.6	98.9%
358	Hunters Lane HS	30.5	19.1%	36.3	29.7%	37.8	32.4%	13.8	14.5%	12.5	13.2%	11.9	12.6%	77.4	43.5%	77.2	43.0%	79.2	47.9%
8011	KIPP Collegiate HS					90.2	100.0%												
8003	LEAD Academy	49.6	53.8%	62.8	77.9%	66.8	85.2%			24.0	25.3%	19.3	20.3%			93.5	83.7%	94.0	85.0%
445	Maplewood HS	23.7	6.7%	32.1	22.1%	31.8	21.5%	5.2	5.5%	5.8	6.1%	9.2	9.7%	74.9	37.3%	82.4	56.0%	82.3	55.7%
470	McGavock HS	49.0	52.6%	46.6	48.4%	53.0	60.0%	22.2	23.4%	24.6	25.9%	25.1	26.4%	73.4	33.4%	76.9	42.1%	78.0	45.1%
456	MLK Magnet	97.1	100.0%	98.2	100.0%	97.5	100.0%	90.1	94.8%	94.2	99.2%	94.0	98.9%	99.4	98.6%	100.0	100.0%	100.0	100.0%
437	MNPS Middle College	64.3	80.5%	76.1	100.0%	87.7	100.0%	44.4	46.7%	43.9	46.2%	51.2	53.9%	95.7	89.4%	97.4	93.4%	100.0	100.0%
512	Nashv Schl of Arts	61.9	76.2%	60.8	74.2%	68.1	87.5%	49.7	52.3%	43.5	45.8%	46.2	48.7%	95.2	88.1%	97.9	94.7%	98.2	95.6%
53	Nashville Big Picture	46.5	48.1%	51.2	56.8%	49.8	54.2%	12.2	12.8%	28.1	29.6%	26.2	27.6%	94.7	86.9%	89.7	74.2%	97.6	93.9%
395	Overton HS	34.3	26.0%	42.4	40.7%	46.7	48.5%	22.9	24.1%	26.9	28.4%	23.9	25.2%	72.5	31.4%	81.6	54.1%	86.4	66.1%
555	Pearl Cohn HS	19.6	0.0%	21.5	2.8%	28.5	15.5%	4.4	4.6%	4.6	4.9%	6.5	6.9%	73.0	32.6%	69.4	23.5%	84.8	61.9%
620	Stratford HS	28.0	14.6%	36.8	30.5%	37.0	30.9%	8.8	9.3%	12.2	12.8%	17.2	18.1%	59.9	0.0%	75.0	37.5%	81.5	53.8%
3	Virtual School	69.1	89.3%	60.7	74.0%	70.7	92.2%			63.6	67.0%	36.8	38.8%	60.0	0.0%	54.6	0.0%	63.6	9.1%
704	Whites Creek HS	23.2	5.9%	25.7	10.3%	31.2	20.4%	2.7	2.8%	6.9	7.2%	3.6	3.8%	68.3	20.8%	73.4	33.6%	73.7	34.2%

APPENDIX B – MNPS ACADEMIC PERFORMANCE FRAMEWORK SCHOOL YEARS 2012-2013 TO 2014-2015 EXAMPLE

MNPS Academic Performance Framework (HS)

Schl #	School	Achievement Gap Index						TELL TN Survey						Tripod Survey				2015 Student Enrollment/Demographics				
		2013 Gap Index	2013 Gap % of Pts	2014 Gap Index	2014 Gap % of Pts	2015 Gap Index	2015 Gap % of Pts	2013 TELL TN Favor	2013 TELL TN % of Pts	2014 TELL TN Favor	2014 TELL TN % of Pts	2015 TELL TN Favor	2015 TELL TN % of Pts	2013 Tripod Favor	2013 Tripod % of Pts	2014 Tripod Favor	2014 Tripod % of Pts	Enrollment	% Economic Disadv	% English Learners	% Students with Disability	% Black, Hisp or Native Amer
720	Acad at Hickory Hollow	26.5	0.0%	53.1	0.0%	20.8	0.0%	0.94	88.8%	0.86	72.9%	0.81	62.4%					99	68.7%	18.2%	7.1%	72.7%
614	Academy at Old Cockrill	31.8	0.0%	23.4	0.0%	31.0	0.0%	0.98	96.1%	0.95	90.7%	0.95	89.2%					146	78.8%	5.5%	9.6%	67.1%
612	Academy at Opry Mills			32.2	0.0%			0.99	98.6%	0.98	95.2%	0.99	98.6%					60	73.3%	3.3%	1.7%	56.7%
20	Antioch HS	5.3	73.7%	5.1	74.4%	6.9	65.7%	0.75	49.8%	0.78	55.0%	0.74	47.3%	0.55	43.3%	0.48	22.0%	2047	74.4%	16.9%	10.6%	70.3%
77	Cane Ridge HS	7.4	62.8%	8.3	58.6%	6.1	69.4%	0.67	33.9%	0.71	41.9%	0.67	34.7%	0.48	22.4%	0.0%		1683	76.3%	15.2%	11.1%	73.5%
443	Cora Howe School	20.3	0.0%	23.2	0.0%	19.9	0.7%	0.91	82.5%			0.91	81.3%			0.59	54.3%	57	80.7%	0.0%	100.0%	56.1%
203	East Nashville School	7.5	62.3%	5.1	74.3%	-1.0	100.0%	0.73	45.3%	0.73	45.7%	0.78	55.0%	0.53	36.7%	0.48	22.9%	685	72.0%	1.3%	8.2%	89.2%
245	Glenclyff HS	5.3	73.5%	7.7	61.3%	10.0	50.0%	0.78	56.1%	0.80	60.6%	0.73	46.4%	0.52	35.1%	0.53	37.1%	1446	87.2%	25.0%	9.5%	71.1%
302	Harris-Hillman			-34.4	100.0%	-40.5	100.0%					0.92	84.0%					57	57.9%	5.3%	89.5%	56.1%
335	Hillsboro HS	5.7	71.6%	5.2	74.1%	4.5	77.5%	0.77	54.8%	0.89	78.3%	0.86	71.5%	0.52	33.1%	0.52	33.1%	1158	54.8%	1.7%	11.6%	59.0%
340	Hillwood HS	6.6	66.8%	5.8	71.1%	7.0	65.2%	0.85	69.3%	0.84	67.9%	0.85	70.9%	0.54	40.0%	0.53	35.9%	1111	67.8%	6.0%	15.4%	45.5%
355	Hume Fogg Magnet	-11.4	100.0%	-8.1	100.0%	-8.3	100.0%	0.85	69.6%	0.83	65.5%	0.79	57.5%	0.61	58.8%	0.64	69.0%	906	29.5%	0.0%	2.1%	28.1%
358	Hunters Lane HS	11.3	43.6%	9.6	51.8%	10.7	46.3%	0.88	75.9%	0.85	69.9%	0.86	71.7%	0.50	27.8%	0.43	8.6%	1631	87.3%	8.3%	13.5%	80.7%
8011	KIPP Collegiate HS					-19.4	100.0%					0.93	85.5%					98	86.7%	7.1%	10.2%	95.9%
8003	LEAD Academy	1.7	91.6%	-4.7	100.0%	-4.4	100.0%	0.87	74.4%	0.75	49.6%	0.81	62.8%	0.54	40.0%	0.52	35.5%	242	81.8%	2.9%	13.2%	93.0%
445	Maplewood HS	14.3	28.4%	11.6	42.1%	13.9	30.3%	0.85	69.3%	0.91	81.7%	0.91	82.0%	0.49	25.7%	0.47	20.0%	963	90.8%	7.6%	16.2%	87.4%
470	McGavock HS	4.3	78.3%	5.3	73.4%	4.6	77.0%	0.74	47.2%	0.77	54.4%	0.76	51.5%	0.54	39.2%	0.55	43.3%	2219	66.9%	4.2%	11.7%	52.1%
456	MLK Magnet	-12.5	100.0%	-13.5	100.0%	-12.9	100.0%	0.86	72.4%	0.72	44.3%	0.74	48.1%	0.57	49.0%	0.55	41.6%	907	38.6%	0.0%	2.0%	47.5%
437	MNPS Middle College	-7.0	100.0%	-15.0	100.0%	-16.1	100.0%	0.99	98.4%	0.98	95.7%	0.98	96.2%			0.61	60.0%	121	62.0%	1.7%	2.5%	55.4%
512	Nashv Schl of Arts	-0.4	100.0%	0.3	98.7%	-0.9	100.0%	0.60	20.1%	0.63	26.2%	0.64	28.5%	0.61	59.2%	0.54	40.8%	603	37.6%	0.3%	5.0%	41.8%
53	Nashville Big Picture	5.6	72.0%	3.8	80.9%	6.3	68.5%	0.88	76.8%	0.76	52.0%	0.77	54.0%	0.64	69.8%	0.56	44.9%	177	58.8%	1.1%	9.6%	64.4%
395	Overton HS	10.4	48.1%	8.0	60.1%	7.7	61.4%	0.81	61.6%	0.76	51.5%	0.85	70.9%	0.55	44.1%	0.57	47.8%	1838	71.4%	25.2%	7.6%	50.7%
555	Pearl Cohn HS	16.8	16.1%	16.5	17.5%	15.2	23.8%	0.71	42.8%	0.84	67.3%	0.83	66.5%	0.49	25.7%	0.46	23.3%	864	91.2%	2.7%	19.9%	94.8%
620	Stratford HS	13.0	35.2%	10.4	47.9%	11.5	42.5%	0.81	62.6%	0.86	71.3%	0.83	66.7%	0.48	22.0%	0.52	33.1%	670	84.2%	5.4%	18.1%	75.4%
3	Virtual School	-2.4	100.0%	4.1	79.7%	-2.6	100.0%			0.96	92.5%	0.98	95.2%	0.51	32.7%	0.64	68.6%	116	37.1%	0.0%	9.5%	19.8%
704	Whites Creek HS	18.9	5.7%	19.0	5.1%	18.2	9.0%	0.71	42.8%	0.89	78.3%	0.80	59.2%	0.47	18.8%	0.47	18.8%	724	77.9%	1.1%	21.5%	84.4%



METRO
NASHVILLE
PUBLIC
SCHOOLS

December 5, 2016

Mark Swann
Metropolitan Auditor
Office of Internal Audit
222 3rd Avenue North, Suite 401
Nashville, TN 37201

Dear Mr. Swann:

This letter acknowledges Metropolitan Nashville Public Schools (MNPS) has received the final audit report from the Metropolitan Nashville Office of Internal Audit on the MNPS performance reporting process. Your analysis and insights align with the direction our team has taken or will take to improve our process. Thank you for your diligent work, expertise, and partnership with the district to better serve our students.

MNPS has evaluated the observations and the recommendations in the report, and we have attached our management response. We accept each recommendation and have made progress on several in real time. Additionally, we have continued to make improvements as the new administration assumed office.

We look forward to working together on future projects as MNPS works to exceed great expectations for each of our students.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn Joseph".

Shawn Joseph, Ed.D.

APPENDIX C – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN

We believe that operational management is in a unique position to best understand their operations and may be able to identify more innovative and effective approaches, and we encourage them to do so when providing their response to our recommendations.

Recommendations	Concurrence and Corrective Action Plan	Proposed Completion Date
Management of the Metropolitan Nashville Public Schools should:		
<p>A.1 Establish a procedure to review and analyze error trends captured by the Data Warehouse so that relevant data entry controls in applications or control activities in the process can be improved.</p>	<p>Accept.</p> <p>Expand error analytics.</p> <p>Acquire specialized data quality software tools.</p> <p>Implement a data governance system that will engage stakeholders and leaders, and provide processes for more efficient data quality issue resolution.</p>	December 2017
<p>B.1 Clarify in the Grading procedure or records retention schedule how long and where approved “Grade Change Request” forms should be stored.</p>	<p>Accept.</p> <p>Establish Records Center and CUM record procedures.</p> <p>Utilize the document upload feature of Campus SIS.</p> <p>The process and form for grade change should be reviewed by, and fall under, the Chief of Schools area of responsibility.</p>	September 2017
<p>B.2 Establish a procedure to reconcile grade changes recorded in the student information system to approved “Grade Change Request” forms.</p>	<p>Accept.</p> <p>Spot checks/audit done by data specialists on a periodic basis.</p>	June 2017
<p>B.3 Evaluate the feasibility of configuring the audit log to track changes only made to existing grades, or modify the change form to include a check box to identify changes for transfer-in students.</p>	<p>Accept.</p> <p>No further action required. Campus provides an audit log that tracks grade changes.</p>	Completed
<p>C.1 Establish monitoring procedures to ensure data accuracy controls exist and are effective in all charter school information systems used for performance reporting.</p>	<p>Accept.</p> <p>Monitoring and reporting to obtain higher levels of accountability (data governance tiered approach from leadership to data entry staff.)</p> <p>Establish expectations for data entry and data quality in charter contracts.</p>	September 2017

APPENDIX C – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN

Recommendations	Concurrence and Corrective Action Plan	Proposed Completion Date
D.1 Adopt a formal district-wide application change control procedure for student information systems. The framework should define the processes for change request, approval, implementation, and review.	Accept. A change control process will be developed and implemented with the TIS reorganization.	September 2017