

New Hampshire Statewide Assessment System

2018–2019

Volume 5 Test Administration



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1. INTRODUCTION

The state of New Hampshire implemented a new online assessment for operational use beginning with the 2017–2018 school year. This new assessment program, referred to as the New Hampshire Statewide Assessment System (NH SAS), replaced the Smarter Balanced Assessment Consortium (SBAC) assessments in reading, writing, and mathematics and the New England Common Assessment Program (NECAP) in science. The NH SAS comprises English language arts (ELA) assessments for grades 3–8, which include both reading and writing components; mathematics assessments for grades 3–8; and science assessments in grades 5, 8, and 11. In 2018–2019, all tests without accommodation were administered online.

The assessment instruments should have established test administration procedures to support useful interpretations of score results, as specified in Standard 6.0 in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014). This volume provides details on testing procedures, accommodations, test administrator (TA) training and resources, and test security procedures implemented for the NH SAS. Specifically, it provides the following evidence related to test administration for the validity of the assessment results:

- A description of the population for whom this test is intended
- A description of the training and documentation provided to TAs in order for them to follow the standardized procedures for test administration
- A description of offered test accommodations intended to remove barriers that otherwise would interfere with test takers' abilities
- A description of the test security process to mitigate loss, theft, and reproduction of any kind
- A description of the American Institutes for Research's (AIR's) quality monitoring (QM) system and the test irregularity investigation process to detect cheating, monitor real-time item quality, and evaluate test integrity

2. TESTING PROCEDURES AND TESTING WINDOWS

Administering the 2018–2019 NH SAS required coordination, detailed specifications, and proper training. In addition to these efforts, several individuals were involved in the test administration process, from those setting up testing environments to those administering the tests. Without the proper training and coordination of these individuals, the standardization of test administration could be compromised. The New Hampshire Department of Education (NHDOE) works with AIR to develop and provide the training and documentation necessary for the administration of the NH SAS under standardized conditions within all testing environments.

As required by the New Hampshire statutes, the NHDOE administers to public school students a test that is aligned to the state content and performance standards in reading and mathematics. New Hampshire students in grades 3–8 take the computer-adaptive NH SAS in ELA and mathematics, and students in grades 5, 8, and 11 take the linear-on-the-fly (LOFT) NH SAS in science. The NH SAS tests in ELA, mathematics, and science are all aligned to the NH College and Career Ready Standards (NH CCRS) for those subjects. The assessments are unique to New Hampshire and can be adjusted to meet the state’s needs. Previous statewide assessments were controlled by a consortium of states and could not be customized.

The accommodations made available to eligible students participating in the computer-based NH SAS ELA, mathematics, and science assessments are described in the *Test Administrator User Guide* (Appendix A), commonly referred to as the *TA User Guide*, which is accessible before and during testing at <https://nh.portal.airast.org>.

Practice and training tests are available for students to practice using the tools and features available in the online system. The training-test sessions contain sample test items and help students become familiar with the computer-based test system functionality and item types. Students were encouraged to access the training test on the portal and practice on their own.

All grades and subjects of the NH SAS were administered during one testing window. ELA was administered as a two-segment test, the first segment consisted of reading and the second of writing. Students were required to complete the reading segment before taking the writing segment. Administrators were encouraged to administer the reading and writing segments of the ELA assessment on separate days, but that decision was left up to administrators. Mathematics and science were administered in one test session each. Students did not have a restricted length of time for each test but were given approximate time estimates for each test session for test administration planning purposes. The spring 2019 testing window ran from March 19 through June 7, 2019.

2.1 ELIGIBLE STUDENTS

All students who were enrolled in tested grade levels and subjects participated in the spring 2019 NH SAS administration with or without accommodations, per state and federal law. Students must take the tests appropriate for the grade level and subjects in which they are receiving instruction. For NH SAS ELA, students must take the same grade-level test for ELA writing and ELA reading to receive an ELA score. This section summarizes the eligibility rules for various groups of students.

- **Public School Students.** Students enrolled in tested grade levels and subjects must participate in the NH SAS.
- **Home Education Program Students.** Students who receive instruction at home and are registered appropriately with their district office as Home Education Program students are eligible to participate in statewide assessments. If parents or guardians identified an NH SAS assessment as a selected measure of their child’s annual progress, Home Education Program students can participate in an NH SAS administration as directed by the District Test Coordinator (DC).

- **English Learners.** All English Learners (ELs) participate in statewide assessments. ELs who have been enrolled in a U.S. school for less than one year are exempt for one administration from NH SAS ELA assessments (reading and writing). Exempt ELs participate instead in the ACCESS for ELLs assessment. Under federal education law (Title I and Title III), all students who are identified as ELs must be assessed each year with this approved assessment. Additionally, all ELs enrolled in tested grade levels and subjects are expected to participate in mathematics assessments regardless of how long they have been enrolled in a U.S. school.
- **Students with Disabilities.** Students with disabilities participate in the statewide assessment program by taking one of the following tests:
 1. NH SAS without accommodations
 2. NH SAS with accommodations
 3. Dynamic Learning Maps (DLM) Assessment

Per the Individuals with Disabilities Education Improvement Act (IDEA), a student with a disability, whom the Individualized Education Plan (IEP) team determines is prevented by a circumstance or condition from physically demonstrating the mastery of skills that have been acquired that are measured by the statewide standardized assessment or an alternate assessment shall be granted an extraordinary exemption from the assessment administration. Neither a learning, emotional, behavioral, or significant cognitive disability nor the receipt of services through the homebound or hospitalized program in accordance with IDEA is an adequate criterion for the granting of an extraordinary exemption. All determinations regarding participation in the statewide assessment program should be documented in the student’s IEP or Section 504 Plan. A student with medical complexity may be exempt from participating in statewide, standardized assessments pursuant to the provisions of state and federal law.

2.2 TESTING ACCOMMODATIONS

Students participating in the computer-based NH SAS can use the standard online testing features, called universal tools, built into the test delivery system (TDS). These features include the ability to select an alternate font size before testing. During the tests, students can zoom in and out to increase or decrease the size of text and images, highlight items and passages in full or in part, cross out response options by using the strikethrough function, use a notepad to make notes, and mark a question for review using the flag function.

Accommodations are provided to students with disabilities enrolled in public schools with current IEPs or Section 504 Plans. Although students can decide not to use an accommodation, they must be offered the opportunity to use the accommodations indicated on their IEPs or Section 504 Plans.

The NH SAS provides three categories of assessment features to students. These include universal tools, designated supports, and accommodations. Volume 1, Section 2.3, of this technical report lists the allowed accommodations and the number of students who were provided accommodations during the spring 2019 test administration.

Table 1 provides a list of universal tools, designed supports, and accommodations offered in the spring 2019 test administration. Universal tools are TDS access features that are delivered digitally (i.e., embedded) or separately (i.e., non-embedded). Designated supports for the NH SAS are those

features available for use by any student for whom the need has been indicated by an educator or team of educators with the parent or guardian and student. The *TA User Guide* (Appendix A) on the NH SAS portal provides instructions on how to access and use these features.

Table 1: Universal Tools, Designated Supports, and Accommodations Available in Spring 2019

Universal Tools	Designated Supports	Accommodations
<i>Embedded</i>		
Video Playback Controls Audio Playback Controls Desmos Calculator Dictionary Enhanced Contrast Expandable Items Expandable Passages Global Notes Highlight Mark for Review Masking Periodic Table Print Size/Zoom Strikethrough Tutorial	Text-to-Speech Embossing Streamlined Mode Braille Type American Sign Language Print-on-Request Mouse Pointer Permissive Mode Color Choices	Presentation Text-to-Speech Embossing Streamlined Mode Braille Type American Sign Language
<i>Non-embedded</i>		
N/A	Speech-to-Text Scribe Read Aloud American Sign Language–Human Signer Color Contrast Bilingual Dictionary Amplification Magnification Noise Buffers Alternate Response Options Separate Setting Color Overlays	100s Number Table Abacus Print-on-Request Speech-to-Text Scribe Read Aloud American Sign Language–Human Signer

Students who require computer-based accommodations (e.g., text-to-speech) are provided the opportunity to participate in practice activities for the statewide assessments with appropriate allowable accommodations. Computer-based test settings and accommodations must be identified in the Test Information Distribution Engine (TIDE) before starting a test session. Some settings and accommodations cannot be changed after a student starts the test.

If a student with an IEP or Section 504 Plan uses any accommodations during the test administration, this information is recorded by the TA in his or her required test administration records.

Guidelines recommended for making accommodation decisions include the following four criteria:

1. Accommodations should facilitate an accurate demonstration of what the student knows or can do.
2. Accommodations should not provide the student with an unfair advantage or negate the validity of a test; accommodations must not change the underlying skills the test is measuring.
3. Accommodations must be the same or nearly the same as those needed and used by the student in completing daily classroom instruction and routine assessment activities.
4. Accommodations must be necessary for enabling the student to demonstrate knowledge, ability, skill, or mastery.

Students with disabilities not enrolled in public schools or receiving services through public school programs who require accommodations to participate in a test administration are permitted access to accommodations if the following information is provided:

1. Evidence that the student is found eligible as a student with a disability as defined by IDEA
2. Documentation that the requested accommodations are regularly used for instruction

2.2.1 Available Accommodations

The TA and the School Test Coordinator (SC) are responsible for ensuring that arrangements for accommodations are made before the test administration dates. The NHDOE provides a separate *Designated Supports, Accommodations, and Universal Tools Guide* (Appendix B) as a supplement to the *Test Administration Manual* (TAM; Appendix C) for individuals involved in administering tests to students with accommodations. The most current version of this document is available on the NH SAS portal at <https://nh.portal.airast.org/resources/test-administration-and-systems-manuals-nhsasta>.

For eligible students with IEPs or Section 504 Plans participating in computer-based assessments, a full comprehensive list of accommodations is listed in the *TIDE User Guide* (Appendix D). The section of that guide titled Managing Student Test Settings and Tools provides information about the tools, supports, and accommodations that are available to students taking the New Hampshire ELA, mathematics, or science assessments. The New Hampshire ELA, mathematics, and science assessments provide three categories of assessment features to students: universal tools, designated supports, and accommodations.

3. ADMINISTRATOR TRAINING

The NHDOE has established and communicated a clear, standardized procedure for NH SAS administration to educators and key personnel involved, including administration with accommodations. Key personnel involved with NH SAS administration include District Test

Coordinators (DCs), School Test Coordinators (SCs), and TAs. The roles and responsibilities of staff involved in testing are further detailed in Section 3.1, Computer-Based Administration.

In fall 2018, AIR and the NHDOE conducted five face-to-face training sessions in several locations across New Hampshire. Each session facilitated approximately 50 attendees. The training covered an introduction to the new Statewide Assessment System and focused on the tools DCs, SCs, and TAs would need to use to administer and report the NH SAS. The training also focused on the new science assessments and provided background on their development process. All test administration personnel were invited to attend a session when it came to their area of the state. Training materials were also posted on the NH SAS portal as a resource for school and district staff. Additionally, TAs were encouraged to complete the online AIR TA Certification Course before administering the test.

TAMs and guides are available online for school and district staff. The *TA User Guide* (Appendix A) was designed to familiarize TAs with the TDS. In addition to helpful tips and screen captures, the guide contains

- steps to take prior to accessing the system and logging in;
- navigation instructions for the TA Interface application;
- details about the Student Interface, used by students for online testing;
- instructions for using the training sites available for TAs and students; and
- information on secure browser features and keyboard shortcuts.

The User Support sections of the *TA User Guide* (Appendix A) and the *TIDE User Guide* (Appendix D) provide instructions to address potential technology challenges during test administration. The AIR Help Desk also supported New Hampshire schools as they administered the state assessment.

3.1 COMPUTER-BASED ADMINISTRATION

The *TA User Guide* (Appendix A) provides instructions for creating test sessions; monitoring sessions; verifying student information; assigning test accommodations; and starting, pausing, and submitting tests. The *Technical Specifications Manual for Online Testing* (Appendix E) provides information about hardware, software, and network configurations to run AIR’s various testing applications. More details were made available to educators and staff in the field through several supplementary documents, such as the *System Requirements for Online Testing* (Appendix F) and the *Quick Guide for Setting Up Your Online Testing Technology* (Appendix G).

Personnel involved with statewide assessment administrations play an important role in ensuring the validity of the assessment by maintaining both standardized administration conditions and test security. Their roles and responsibilities are summarized in the following paragraphs.

3.1.1 Roles and Responsibilities in the Online Testing Systems

DCs, SCs, and TAs each have roles and responsibilities in the online testing systems. See the *Test Administration Manual* (Appendix C) for their specific responsibilities before, during, and after

testing. Additionally, the document titled Secure Systems and Permissions (Appendix H) provides details regarding each user role’s permissions in the secure systems used for test administration.

District Test Coordinators

DCs are responsible for coordinating testing at the district level and for ensuring that the SCs in each school are appropriately trained and aware of policies and procedures and that they are trained to use AIR’s systems.

School Test Coordinators

Before each test administration, SCs and DCs must verify that student eligibility is correct in TIDE and that any accommodations or test settings are correct. To participate in a computer-based test, students must be listed as eligible for that test in TIDE. See the *TIDE User Guide* (Appendix D) for more information.

SCs are responsible for ensuring that testing at their schools is conducted in accordance with the test security and other policies and procedures established by the NHDOE. SCs are primarily responsible for identifying and training TAs. SCs work with technology coordinators to ensure that computers and devices are prepared for testing and technical issues are resolved. During the testing window, SCs monitor testing progress, ensuring that all students participate as appropriate and handle testing issues as necessary.

Test Administrators

TAs, as well as SCs, administer the NH SAS. TAs are responsible for reviewing necessary manuals and user guides to prepare the testing environment and ensure that students do not have books, notes, scratch paper (excluding their work folders, worksheets, or planning sheets), or electronic devices on hand. TAs must administer the NH SAS following the directions found in the guide. Any deviation in test administration must be reported to the SC, who is to report it to the DC. Then, if necessary, the DC is to report it to the NHDOE. TAs also ensure that only the resources allowed for specific tests are available and that no additional resources are being used during the NH SAS administration.

3.2 TEST ADMINISTRATION RESOURCES

The list of in-person training sessions, webinars, and training resources for the spring 2019 NH SAS administration is provided below. Training materials are all available online at <https://nh.portal.airast.org/resources/training-materials>.

- NH SAS Fall Training presentations
- TIDE webinar
- Technical Requirements for Online Testing webinar

The test administration resources comprise various materials and user guides (manuals, quick guides, etc.) available at NH SAS portal (<https://nh.portal.airast.org>) and include the presentation slides used for NH SAS administrator trainings. The *TA User Guide* provides details of the TA interface that is used to administer online tests. The *TIDE User Guide* (Appendix D) demonstrates several examples of TIDE’s features, including managing student test settings and instructions on

performing tasks before and during the test administration. The tasks that occur before testing include setting up new users and establishing student test settings and tools. The tasks during test administration include monitoring test progress, such as a planning and managing testing reports, test completion rates reports, and test status code reports.

Table 2 presents the list of available user guides and manuals related to the spring 2019 NH SAS administration. The table also includes a summary of each resource and its intended use.

Table 2: Guides and Manuals

Resource	Description
<i>Test Administrator User Guide</i>	The <i>TA User Guide</i> is designed to help users navigate the TDS, including the Student Interface and the TA Interface, and to help support TAs as they manage and administer testing for students participating in the NH SAS online assessments (see Appendix A).
<i>Designated Supports, Accommodations, and Universal Tools Guide</i>	The <i>Designated Supports, Accommodations, and Universal Tools Guide</i> will shape the delivery of online testing for all students, including those with visual, auditory, linguistic, or physical needs. These guidelines were developed in collaboration with the NHDOE and nationally recognized experts on ELs and students with disabilities (see Appendix B).
<i>Test Administration Manual</i>	The TAM provides information for administering the NH SAS online assessments in English language arts/reading, mathematics, and science. It includes screen captures and step-by-step instructions on how to administer the online tests (see Appendix C).
<i>Test Information Distribution Engine User Guide</i>	The <i>TIDE User Guide</i> is designed to help users navigate TIDE. Users can find information on managing user account information and managing student account information, student test settings and accommodations, appeals, and voice packs (see Appendix D).
<i>Technical Specifications Manual for Online Testing</i>	This manual provides technology staff with the technical specifications for online testing, including information on Internet and network requirements, general hardware and software requirements, and the text-to-speech function (see Appendix E).
<i>System Requirements for Online Testing</i>	This document outlines the basic technology requirements for administering an online assessment, including operating system requirements and supported web browsers for using AIR's systems during the 2018–2019 test administration (see Appendix F).
<i>Quick Guide for Setting Up Your Online Testing Technology</i>	This manual provides instructions for setting up online testing technology (see Appendix G).
<i>Secure Systems and Permissions</i>	This document describes the permissions for each user role that can access AIR's secure systems (see Appendix H).

3.2.1 Department Resources and Support

In addition to the resources listed in Table 2, the NHDOE provided the following resources to districts:

- Communications to the field via email memos on an ad hoc, as-needed, basis. These communications generally address specific issues that need to be communicated quickly to

the field. The distribution is to superintendents, DCs, principals, and special education directors.

- General information about the assessments posted on the NHDOE assessment website, such as testing windows for all state-administered assessments. The *Designated Supports, Accommodations, and Universal Tools Guide* (Appendix B) is often referenced to address questions pertaining to accommodations and overall accessibility.

For the reading component of the computer-based ELA assessment, students in grades 3–8 must have headphones or earbuds. There are no technical specifications for headphones or earbuds. The NHDOE does not provide them; rather, the schools provide them, or students can use their own. Headphones should be checked prior to the first day of testing to ensure that they work with the computer or device the students use for the assessment. To further verify that headphones are functional, a sound check is built into the assessment sign-in process, and students are asked to confirm that headphones or earbuds are in working order before they begin the test.

3.2.2 NH SAS Training Tests

The purpose of the training tests is to familiarize students with the system, functionality, and item types. The items provide a grade-specific testing experience, including a variety of question types. The training tests are not intended to guide classroom instruction. Users can also use the tutorials for each item and familiarize themselves with the different features and response instructions for each item type.

Computer-based training tests are available on the New Hampshire portal. The online training tests were available throughout the testing window. Computer-based training tests are designed for use with the secure browser or a supported web browser. The portal provides a list of supported web browsers and their versions for the practice tests. AIR’s TDS delivers the training tests in guest mode and secure mode. In each mode, the training tests are deployed using the same test delivery engine as the operational test.

In guest mode, anyone can log on to the training test system anonymously and take any test offered in the system. Users can experience all item types presented in the Student Interface and may take as many tests as they like. Additionally, the user can select from among the available accommodations and supports at the beginning of the test.

The design of the secure mode ensures that students, teachers, and educators are familiar with the online testing system before operational testing begins. The same set of tools, accommodations, and embedded supports as in operational tests are available in secure mode, because both training and operational tests are delivered through the same system.

4. TEST SECURITY PROCEDURES

Test security involves maintaining the confidentiality of test questions and answers and is critical in ensuring the integrity of a test and validity of test results. If non-embedded accessibility supports are used, assessment security can become an issue when other test formats are used or when someone other than the student is allowed to see the test (e.g., interpreter, reader, scribe). To ensure

test security and confidentiality, TAs need to (1) keep testing materials in a secure place to prevent unauthorized access, (2) keep all test content confidential and refrain from sharing information or revealing test content, and (3) return all materials as instructed.

Some of the same considerations for test security apply to embedded accessibility supports. For example, ensuring that only authorized personnel have access to the test and that test materials are kept confidential is critical in technology-based assessments. In addition, it is important to guarantee that (1) students are seated in such a manner that they cannot see one another's terminals, (2) students are not able to access any unauthorized programs or the Internet while they are taking the assessment, and (3) students are not able to access any saved data or computer shortcuts while taking the test. In most cases, any special required hardware devices and appropriate applications, such as switches, should be compatible with computer-based assessments. Prior to testing, educators should check on device compatibility and make appropriate adjustments if necessary. Test security procedures for the NH SAS include

- procedures to ensure security of test materials;
- procedures to investigate test irregularities; and
- guidelines to determine if test invalidation is appropriate and necessary.

New Hampshire has developed an appropriate set of policies and procedures to prevent test irregularities and ensure integrity of test results. These policies include maintaining the security of test materials, ensuring adequate trainings for everyone involved in test administration, outlining appropriate incident-reporting procedures, detecting test irregularities, and planning for investigation and handling of testing security violations.

If a TA has reason to believe that a violation in testing security has occurred, he or she should notify the SC immediately. The SC should then notify the DC. If a DC has reason to believe that a lapse in test security has occurred, he or she must

- immediately notify the NHDOE;
- securely transmit relevant evidence of irregularities via secure file transfer after the incident occurred; and
- maintain the confidentiality of all evidence and documentation related to test security investigations.

If the NHDOE has reason to believe that a violation in testing security has occurred, it has an obligation to investigate the incident as soon as possible. Districts and schools must comply with NHDOE requests for documentation and information relevant to their initial investigation. The NHDOE may involve the school district or conduct an independent investigation.

If the NHDOE determines that an irregularity in test administration or security has occurred, they will notify the DC in writing, indicating the status of the case. Depending on the severity of the incident and its potential impact on the NH SAS program, actions may include but are not limited to

- invalidation of student scores;
- a requirement for the district or school to administer the breach form;

- a requirement for the district or school to complete a corrective action plan;
- the NHDOE’s recommendations and/or requirements for inclusion in the district or school corrective action plan; and
- no further action required.

A DC must submit a corrective action plan to the NHDOE, which may include but is not limited to

- investigative findings indicate that the testing irregularity resulted from inappropriate district test administration and/or inadequate security protocol and
- investigative findings indicate that the DC did not provide adequate or sufficient trainings to those involved in test administration and/or security procedures.

4.1 SECURITY OF TEST MATERIALS

Before test materials are finalized, items go through multiple reviews, including reviews by various committees. It is critical to maintain the security of test items during these committee meetings. Items are accessed directly from AIR’s secure Item Tracking System for online committee meetings; thus, no printed copies need to be transported to meetings. Any materials that need to be printed are printed on light green paper with each page marked as secure in the header and/or footer. Such printed materials are distributed to participants only after they have signed the AIR and state nondisclosure forms. AIR staff review the security procedures with the committee members.

All test items, test materials, and student-level testing information are deemed secure and must be handled appropriately. Secure handling protects the integrity, validity, and confidentiality of assessment questions, prompts, and student results. Any deviation in test administration must be reported to protect the validity of assessment results.

The security of all test materials must be maintained before, during, and after test administration. Under no circumstances are students permitted to assist either in preparing secure materials before testing or in organizing and returning materials after testing. After any test administration, initial or makeup, secure materials (e.g., passage booklets, test tickets, used worksheets, used work folders) must be returned immediately to the SC and placed in locked storage. Secure materials must never be left unsecured, remain in classrooms, or be removed from the school’s campus overnight. Secure materials are not allowed to be destroyed (e.g., shredded, discarded in the trash), except for soiled documents. In addition, any monitoring software that might allow test content on student workstations to be viewed or recorded on another computer or device during testing must be disabled.

It is a testing security violation for an individual to fail to follow security procedures set forth by the NHDOE, and no individual is permitted to

- read or view the passages or test items before, during, or after testing;
- reveal the passages or test items;
- copy the passages or test items;
- explain the passages or test items to students;
- change or otherwise interfere with student responses to test items;

- copy or read student responses; or
- cause achievement of schools to be inaccurately measured or reported.

Users must access the computer-based NH SAS tests with a secure browser. The secure browser provides a secure environment for student testing by disabling hot keys, copy, and screen-capture capabilities and preventing access to the desktop (i.e., Internet, email, and other files or programs installed on school machines). Users cannot access other applications from within the secure browser, even if they know the keystroke sequences. Students are not able to print from the secure browsers. During testing, the desktop is locked down. The secure browser is designed to ensure test security by prohibiting access to external applications or navigation away from the test. See the *Test Administrator User Guide* in Appendix A for further details.

4.2 INVESTIGATING TEST IRREGULARITIES

Throughout the testing window, TAs must report breaches of protocol and testing irregularities to the appropriate school district administrator, the NHDOE, and/or the NH SAS Help Desk. They can submit online test invalidation requests as appropriate through the Appeals/Invalidations module under *Administering Tests* in the TIDE system.

AIR’s QM system gathers data used to detect cheating, monitors item functioning in real time, and evaluates test integrity. Every completed test runs through the QM system, and any anomalies (e.g., unscored or missing items, unexpected test lengths, or other unlikely issues) are flagged. AIR psychometricians and project team then receive immediate notification via quality assurance (QA) reports. The forensic analysis report from the QM system flags unlikely patterns of behavior in testing administrations aggregated at the test administration, TA, and school levels. If any unexpected results are identified, the lead psychometrician alerts the project manager immediately to resolve any issues.

4.3 GUIDELINES FOR TEST INVALIDATION

During the testing window, TAs must immediately report any test incidents (e.g., disruptive students, loss of Internet connectivity, student improprieties) to the SC. A test incident could include testing that was interrupted for an extended period due to a local technical malfunction or severe weather. SCs notify DCs of any test irregularities that are reported. DCs must submit requests for test invalidations to the NHDOE via AIR’s TIDE system. The NHDOE makes the final decision on whether to approve the requested test invalidation. DCs can track the status and final decisions of requested test invalidations in TIDE.

4.4 AIR’S SYSTEM SECURITY

AIR has built-in security controls in all its data stores and transmissions. Unique user identification is a requirement for all systems and interfaces. All of AIR’s systems encrypt data at rest and in transit. NHDOE data reside on servers at Rackspace, AIR’s hosting provider. Rackspace maintains 24-hour surveillance of the interior and exterior of its facilities. Staff at AIR and Rackspace receive formal training in security procedures to ensure that they know the proper procedures and implement them properly.

Hardware firewalls and intrusion detection systems protect AIR networks from intrusion. AIR's systems maintain security and access logs that are regularly audited for login failures, which may indicate intrusion attempts. All of AIR's secure websites and software systems enforce role-based security models that protect individual privacy and confidentiality in a manner consistent with the Family Educational Rights and Privacy Act (FERPA).

AIR's systems implement sophisticated, configurable privacy rules that can restrict data access to appropriately authorized personnel only. AIR maintains logs of key activities and indicators, including data backup, server response time, user accounts, system events and security, and load test results.

REFERENCES

American Educational Research Association (AERA), American Psychological Association (APA), National Council on Measurement in Education (NCME), & Joint Committee on Standards for Educational and Psychological Testing (U.S.). (2014). *Standards for educational and psychological testing*.