

Security in a High-Stakes Environment: The Perceptions of Test Directors

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The use of student performance on tests in accountability systems is not new What is somewhat different about the current emphasis on performance-based accountability is its pervasiveness Student achievement is being used not only to single out schools that require special assistance, but also to provide cash incentives for improvements in performance. Yet several fundamental questions remain about the student assessments, the accountability model, and the validity, impact, and credibility of the system. (Linn, 2000, pp. 1-2)

Most Americans favor student testing for the purposes of information, accountability, and incentives (Phelps, 1999). Linn (2000 a, b) contends that this focus upon student testing has played a prominent role in many education reforms. The recent rise in the number of tests administered in the United States, especially those with consequences, has been said to coincide with the standards reform movement of the 1990s (Elmore, Abelman & Fuhrman, 1996).

Historical Perspective on Testing

Testing and accountability have played “prominent roles in many of the education reform efforts during the past 50 years” (Linn, 2000 b). In the 1950s, testing was used routinely to select students to enter special programs for the gifted within our K-12 schools and for our institutions of higher education. Mehrens and Lehman (1987) contend that there was a significant shift that occurred between the early 1960s, a time from when many criticized tests, and that of the 1970s when the majority of individuals tended to favor testing.

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The 1980s were a time of concern from special interest groups. This time period resulted in many truth-in-testing bills that generally required test developers to share information such as how the test was developed, known reliability and validity properties, appropriate uses of results, and confidentiality regulations. During this same time a number of legislative bills were enacted to implement statewide testing programs. Initially, these statewide programs focused on implementing competency tests designed to ensure that high school graduates had obtained a minimum level of basic skills, generally in reading and mathematics. However, by the late 1980s and 1990s there was a public outcry that our graduates were not prepared to enter the workforce in the new millennium. This outcry gave rise to what has been called the Standards Movement, resulting in higher outcome measures established for our schools. These outcome measures, generally operationalized as higher test score performance, sought to provide a well-educated American workforce in the global economy (Gordon, 2001).

Phelps (1999) states that over 40 million tests are administered annually. Studies reporting the costs associated with administering these tests indicate estimates ranging from about \$575 per student (Haney, Madaus, & Lyons, 1993) to between \$848-1,792 per student (Picus & Tralli, 1998). Most recently, Hoff (2001) and Danitz (2001) indicate that results from a survey of state officials revealed a nationwide annual total of \$400 million with California testing programs in the lead having a \$44 million price tag. The general public, even across different respondent groups, vehemently favors more testing and higher stakes. According to Phelps (1999), "Twenty-seven polls taken between 1970 and the present asked specific respondents whether they thought education would improve if there were higher stakes in school testing. In 26 of the 27 polls, the

answer was yes, in most cases by huge margins” (p. 15). One may ponder whether those responding to these polls are aware of the costs.

Evolution and Impact of High-Stakes Testing

According to Wiersma and Jurs (1990), “Some tests ... get more publicity ... (and) are acclaimed as important indicators of educational performance, or they are maligned as unfair tools of the educational system that have serious negative consequences for the examinees. Unfortunately, the proponents and critics are often talking about the same test. The tests are controversial because there are important consequences that are attached to high or low scores ... these are sometimes referred to as high-stakes tests” (p. 353).

Many (*e.g.*, Corbett & Wilson, 1991; Phelps, 1999; Phelps, 2000; Ravitch, 1995; Resnick & Resnick, 1985; Schwatz & Viator, 1990) have debated the various benefits and disadvantages of the use of high-stakes tests as a means of accountability and levers for change in support of higher educational standards. Advocates generally cite enhancement of student performance outcomes and equity. Phelps (1999) has tried to summarize some of the disadvantages. He indicates that the anti-testing “canon includes allegations that standardized tests, particularly those with high-stakes:

- ◆ Induce ‘teaching to the test’ which, in turn, leads to artificial inflation of scores;
- ◆ Narrow the curriculum to a small domain of topics;
- ◆ Tap only ‘lower-order thinking’ and hence discourage innovative curricula and teaching strategies;
- ◆ Cause student achievement to decline;
- ◆ Are unfair to minorities and women;
- ◆ Are costly in terms of money and time;
- ◆ Are overused in the United States, especially in comparison with other countries; and
- ◆ Are opposed by all those who truly care about children” (pp. 3-4).

Prevalence of Cheating/Security Breaches on High-Stakes Testing

According to Canner (1992) and NCME (1991), high-stakes testing has increased the pressure placed on educators to improve test scores in both appropriate and inappropriate ways. A review of recent studies (*e.g.*, Colton, 1997; Grant, 2000; Hall & Kleine, 1992; Kher-Durlabhji, Neelam & Lacina-Gifford, 1992; Linn, 2000 a, b; Mehrens, 1998; Monsaas & Englehard, 1991; Perlman, 2000; Shepard, 2000; Shepard & Dougherty, 1991; Smith, 1991; Wellhousen & Martin; 1991) and a plethora of newspaper articles appears to indicate that the incidences of test security breaches leading to cheating on standardized tests, in general, and those with high-stakes, in particular, are extensive.

In a national survey of 356 high school teachers conducted by The American School Board Journal (Bushweller, 1999), 90% said cheating, though not just on standardized tests, is a problem in schools. Half the teachers said they encounter cheating by students in most of their classes; but cheating is not reserved just for students. In surveying 2,567 teachers, testing coordinators, principals and superintendents, Hall and Kleine (1991) found that 44% of the survey respondents reported that their colleagues engage in practices that are blatant cheating.

Similarly, Monsaas and Englehard (1991), using Fishbien and Ajzen's theory of personal action of the relationship of attitudes and subjective norm (*i.e.*, perceived pressure) accurately predicted teachers' testing behavior. Their research concluded that there was a relationship between teacher attitudes and behaviors. As the amount of perceived pressure increased, justifications to cheat became more prevalent. Grant's (2000) qualitative study further explored the extent standardized testing influenced teachers. Grant found that teachers were not opposed to change and

accountability, but sought professional development to learn about change and the rationales and consequences of such testing. Kher-Durlabhji, Neelam and Lacina-Gifford's study in 1992 examined the pre-service perceptions of teachers in score-enhancing techniques such as checking completed answer sheets, teaching test-taker skills, and preparing learner objectives based on standardized test items. Additionally, Wellhousen and Martin (1995) found that over half of the 63 teachers in their study indicated that they would cheat under certain conditions. Reasons included perceived benefits to the students or the deemed inappropriateness of the administered test. Assistance (*i.e.*, cheating) could include hints, rewording items, and teaching to the exact test.

Issues related to inclusion (*i.e.*, participation rates) and test preparation may also lead to cheating. Some researchers (*e.g.*, Linn, 2000 a, b) have postulated that it is necessary to safeguard against selective exclusion of students. Other researchers (*e.g.*, Shepard, 2000; Smith, 1991) have bemoaned that high-stakes tests cause teaching to the test. For instance, Smith (1991) studied test coaching by surveying Arizona teachers and administrators. This resulted in the creation of a typology of teacher orientation toward preparing students for high-stakes testing. Individuals such as Ligon (1995, 2000), O'Reilly (ND), Perlman (2000), and Protheroe (2000) have written about appropriate vs. inappropriate test preparation activities. Appropriate deemed to be appropriate are used to help students score well without resorting to things such as test-score inflation, curriculum distortion, lower skills, and equity issues. Many of these individuals also point out that the nature of the tests, for example, criterion-referenced versus norm-referenced testing, need to be considered. Colton (1997) further postulates that even the new advancement towards computer testing is at least as vulnerable as paper/pencil.

The media has also reported numerous allegations of cheating. Andrews (2001) reported on Alabama teachers penalized for compromising test security, while Hopkins (1999) reported the allegation of a past employee of a State Education Administration copying and distributing portions of the mathematics test. In other instances, Orleans (2000) covered the story of principals and teachers in 32 New York schools providing questions in advance to students for them to practice and Borja (1999) reported the allegation of a middle school administrator in Virginia copying questions from the Standards of Learning exam and then distributing comparable ones to teachers and students. Bradley (1999) published an article on how entire sections of a test were published in a newspaper run by teachers while Webster (2000) has shared that Nevada high school students passed around answers during administration of the state proficiency examination. From these and numerous other recent media accounts, it appears that neither the students nor educators in any part of the United States are untainted from this allegation of cheating resulted from breaches in test security.

Reasons for Cheating and Steps to Consider to Deter It

While various researchers and individuals representing the media have excoriated cheating, Bushweller (1999) identifies potential reasons for test security breaches. He postulates that erosion of ethics in self-centered culture, habits gained in cooperative learning groups, and teachers who do not wish the hassle of disciplining cheaters are underlying factors contributing to cheating problem.

O'Reilly (ND) has provided us with a model of what is needed to actually obtain a student's true test score (See Figure 1). Cheating and other security breaches would be considered pernicious to one's ability to obtain an accurate test score.

$$\text{Accurate Test Scores} = \text{Content Knowledge} + \text{Familiarity} + \text{Motivation}$$

Figure 1. O'Reilly's model of factors contributing to an accurate test score.

Phelps (1999) has indicated that "The critics unfairly compare high-stakes standardized testing to their own notion of perfection. Administration of high-stakes tests will never be perfect. There will always be some teachers and pupils who cheat. There will always be some students who are better prepared to take a test than others ... " (p. 17).

Others such as state department officials have taken a more positive approach as found by Mehrens' study survey of state education officials on test security practices. Additionally, individuals such as Bushweller (1997), O'Reilly (ND), Popham (2000 b), and Kilian (1992) feel that professional development will help deter cheating. They address the importance of providing professional development to help ensure that individuals understand proper test administration, preparation practices, and other appropriate factors in ascertaining a student's accurate test score.

Additionally, others (*e.g.*, Colton 1997) have suggested we integrate technology to be used as countermeasures by proctors and staff trained to enhance effective observation skills and control the exposure to the examination.

To deter cheating, we have also seen the emergence and/or study of standards (*e.g.*, AERA, APA, NCME, 1985, 1999), guidelines (*e.g.*, NCME, 1991; Kimmel 1997; Wilson, 1993) and position statements (*e.g.*, AERA, 2000) tied to issues such as the appropriate use of tests and test security. The severity of this issue is evidenced in Wilson's (1993) writings where he strongly recommends

that School Boards adopt codes of ethics for standardized tests that result in the dismissal of teachers for breaching security.

Purpose and Significance of this Study

Though many stakeholder groups have been involved in studies (*e.g.*, Hall & Kleine, 1992; Mehrens, 1993) seeking perceptions about the importance and impact of tests, others (*e.g.*, AERA *et al.*, 1999) have advised and/or worked to implement various guidelines and standards to enhance test security. Yet, a review of the literature located no study that has been conducted focusing on exploring district test directors' perceptions on the issue of enhancing test security. Thus, the purpose of this exploratory study was to focus on the general research question of describing district level test directors' perceptions about test security in a high-stakes environment. This included perceptions on the (1) prevalence of identified standards, (2) importance and existence of actions, procedures, policies and (3) consequences of high-stakes testing. An undergirding purpose of this study was to gather from test directors actual vignettes of student and educator breaches, and the hope to add to the literature on how to deploy solutions to help deter cheating and enhance test security.

Methodology

Sample

I drew the sample for this study from the membership of the National Association of Test Directors (NATD), an organization of professionals with responsibilities for administering assessment programs in K-12 public educational settings. This membership is broadly representative of North America. Members are generally employed by local or state education agencies, test publishers, or universities. Using the NATD mailing list, I selected the members who worked for local education

agencies, herein referred to as school districts. Reasonable attempts were then made to ensure that only one individual from a district received a survey.

Instrumentation

The cover letter accompanying the mailed two-sheet questionnaire included the purpose of the canvass and the reason the individuals were selected to participate in the study. (See Appendices A and B.) Three follow-up e-mails were forwarded to NATD members who were enrolled on the listserv. A moderate percentage of the sample selected to receive the survey was assumed to be enrolled on the listserv. The listserv was used as a vehicle to announce the study, allow individuals an optional opportunity to receive/return surveys electronically, and provide a professional reminder to submit completed surveys.

The first of four sections on the survey asked questions related to district and director characteristics. This included the type of district, state in which the district was located, student enrollment, and grade configuration. The percentages of students in the respective district eligible for free/reduced lunch, English as a Second Language (ESL)/Limited English Proficient (LEP), and special education were requested in order to determine representativeness and generalizability of the findings. Within this first section the respondents were asked four questions dealing with the level of experience these administrators had with the issue of test security. More specifically, respondents were asked to indicate the number of years in which they served as a testing director and the number of years until retirement. Questions were posed as to whether the district implemented a high-stakes testing program and whether there had been a test security breach within the district in the past two years.

The second section of the survey listed statements from the *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 1985), hereafter referred to as *The Standards*. *The Standards* document provides “the basis for evaluating the quality of testing practices as they affect the various parties involved” (p. 1). The survey asked participants to respond to seven statements using a five-point Likert-type scale to indicate how often each activity, or standard, occurred in their district (“5” indicated “always”, a “1” meant “never”). The seven standards cited on the survey were noted by Cizek (1999) as primary standards related to cheating and test security issues. It is of special note that primary standards are “those that should be met by all tests before their operational use and in all test uses, unless a sound professional reason is available to show why it is not necessary, or technically feasible, to do so in a particular case” (AERA, APA, NCME, p.2).²

The third section included a series of 24 statements based upon the review of literature (*e.g.*, NCME, 1991) and assistance from 14 educational administrators from urban, suburban and rural communities. These statements listed actions, procedures and/or policies often mentioned as practices to help maintain test security in order to deter cheating. For each of these statements, individuals were asked to respond to two questions. First, the director was asked how important the practice was to maintaining test security. Second, the director was asked to indicate the degree to which the practice existed in the school district. A five-point Likert response format was used for

² While an updated version of *The Standards* has been released (AERA, APA, NCME, 1999), it was felt by the researcher that there were minimum changes made with this second edition on the identified standards and that most people who knew about the document had at least a working knowledge of the earlier edition.

each question, with the higher score meaning higher importance or greater existence. A “difference” score was then calculated between perceived importance and existence.

The fourth section was designed to obtain test directors’ perceptions on consequences of high-stakes testing and overall direction of change. Two items related to perceptions of the degree that high-stakes testing enhanced student performance outcomes and school improvement efforts. Individuals were asked the degree to which there were higher stakes attached to test results over the past five years and whether they felt this would be increasing in the next five years. They were also asked whether they felt that high-stakes testing increases the potential for breaches in test security. A question was then presented to determine whether test directors felt that test security in a “high-stakes” environment could be a reality.

The survey concluded with two open-ended items. With confidentiality assured, individuals were asked to briefly describe a student-related and/or educator-related test security breach that had occurred in their district.

Data was entered into the Statistical Package for the Social Sciences (SPSS, 2001) with appropriate measures of central tendency and dispersion calculated. Bivariate correlations also run to explore the relationship between reported existence of a security breach and size of district and perceived existence of high-stakes testing program. Correlated t-test analyses were conducted to explore statistically significant differences between perceived importance and existence on the 24 statements

ted to actions, procedures, and/or policies implemented to maintain test security.³ Open-ended survey responses were interpreted using a causal-comparative thematic analytical approach.

Results

Nonresponse Bias

A total of 66 surveys were returned. Response profiles were analyzed to provide some insight regarding the important issue of nonresponse bias (Kerlinger, 1986). Findings indicated that the respondents appeared to reflect a reasonable distribution of NATD members from school districts in the sample and were reasonably representative of these characteristics. No contention is made, however, that members of NATD are necessarily representative of school districts across the United States.

District Characteristics

The 66 respondents represented school districts with enrollments totaling 4,425,191 students. District enrollments ranged from 2,680 to 1.1 million students with a median of 25,011 students (see Table 1). Though the vast majority of the school districts (97.0%) had a PreK-12 or K-12 configuration, one respondent indicated a K-6 and another a K-8 enrollment configuration. The primary classification type for 33 (50.0%) of the districts was urban, compared to 20 (30.3%) suburban, and 4 (6.1%) rural. The analysis of the percentage of students on free/reduced lunch, English-as-a-Second Language (ESL) or Limited English Proficient, and special education revealed

³ While initially an exploratory factor analysis with a Varimax rotation was planned to determine underlining domains of actions, procedures and/or policies implemented to address security, this analysis was conducted though not reported within this paper due to the limited sample size,. It had earlier been hoped that the factor analysis would aid in exploring the relationship of each factor with whether a district had experienced a security breach in the past two-years and whether a high-stakes program was implemented.

variations among respondents. The least amount of variation was evidenced in the percentage identified as special education (*i.e.*, 5 to 22%).

Test Director Characteristics

A wide range in years of experience as a test director also was indicated ranging from two months to 25 years, and anywhere from an anticipated retirement this year to 30 years from now. While 81.8% of the respondents indicated that their district was implementing a high-stakes testing program, 42.4% noted that a breach in test security had occurred in the past two years.

Table 1

Descriptive Statistics of Student, District and Personal Characteristics Represented by Survey Respondents

	<u>Mean</u>	<u>Mdn</u>	<u>SD</u>	<u>Range</u>
Student enrollment	67,048	25,011	166,753	2,680 - 1,097,320
Characteristics of students				
Percent on free/reduced lunch *	39.6	35.0	21.2	0 - 85
Percent ESL/LEP *	11.0	4.8	12.1	0 - 44
Percent special education *	12.8	12.0	3.6	5 - 22
Characteristics of directors				
Number of years as testing director	9.0	7.5	6.8	2 mo. - 25 yrs.
Number of years until retirement	8.7	7.0	7.7	0 - 30
<hr/>				
		<u>n</u>	<u>%</u>	
States represented		28	56.0	
Configuration of district				
PreK-12		29	43.9	
K-12		35	53.0	
Other		2	3.0	
Type of district				
Urban		33	86.4	
Suburban		20	30.3	
Rural		4	6.1	
High-stakes testing district impact				
Implement high-stakes testing program		54	81.8	
Test security breach within past two years		28	42.4	

* Medians in addition to means are reported due, in part, to extreme outlier values in enrollments.

A simple bivariate correlation revealed no significant relationship to exist between district enrollment size and whether a test security breach occurred within the past two years ($r = .18; p > .05$). A significant correlation did emerge between whether the directors perceived that the district implemented a high-stakes testing program and whether a test security breach occurred ($r = .31; p < .05$). This indicated that school districts that tended to have high-stakes testing programs evidenced a tendency for test security breaches compared to those who did not have this type of program.

Prevalence of Identified Standards

Results indicate that test directors indicate that *The Standards* are most always prevalent within one's district (see Table 2). The highest rating ($\underline{M} = 4.7$) was given to standards associated with reasonable efforts made to assure the validity of test scores and making reasonable efforts to ensure that contrary, as well as supporting evidence is examined to settle the matter of the validity of the score in question. The overall lowest average rating ($\underline{M} = 4.3$) was for the standard indicating that should a test security irregularity be purported in my district, test-takers are given sufficient warning and an opportunity to provide evidence that scores should not be canceled or withheld. It is interesting to note that a few respondents wrote next to some standards comments indicating that they did not know what the statement meant. This generally occurred next to statements associated with scoring mechanisms.

Table 2

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Level of Prevalence of Each Identified Standard within the District

		Always 5	4	3	2	Never 1	<u>M</u>	<u>SD</u>
1. Educators who administer and those responsible for high-stakes tests in my district take appropriate security precautions before, during, and after administration.	<u>n</u>	36	28	1	0	0	4.5	.53
	%	54.5	42.4	1.5	0	0		
2. Educators in my district avoid any conditions in the conduct of the administration of high-stakes tests that might invalidate the results.	<u>n</u>	33	31	1	0	0	4.5	.53
	%	50.0	47.0	1.5	0	0		
3. Reasonable efforts are made by educators in my district to assure the validity of test scores by eliminating opportunities for test-takers to attain scores by fraudulent means.	<u>n</u>	45	20	0	0	0	4.7	.47
	%	69.2	30.8	0	0	0		
4. Reasonable efforts are made by students in my district to attain test scores by acceptable means.	<u>n</u>	31	30	3	0	0	4.4	.59
	%	48.4	46.9	4.7	0	0		
5. Should scores in my district be withheld or canceled, the type of evidence and procedures used to determine this is fully explained to all test takers impacted.	<u>n</u>	38	10	8	3	0	4.4	.91
	%	64.4	16.9	13.6	5.1	0		
6. Should a test security irregularity be purported in my district, test-takers are given advance warning and an opportunity to provide evidence that scores should not be canceled or withheld.	<u>n</u>	36	11	6	2	3	4.3	1.12
	%	62.1	19.0	10.3	3.4	5.2		
7. Should a test security irregularity be purported in my district, reasonable efforts are made to ensure that contrary, as well as supporting evidence is examined to settle the matter of irregularity as well as validity of the score in question.	<u>n</u>	48	12	2	0	0	4.7	.51
	%	77.4	19.4	3.2	0	0		

Importance of Actions, Procedures, and/or Policies

As noted within Table 3, test directors rated 22 of the 24 actions, procedures, and/or policies at least 4.0 on a five-point Likert scale used to measure importance (“5” meaning “extremely”). Those most important to deter test security breaches resulting in overall averages of 4.9 on a five-point scale were:

- All test materials are kept in locked, secured areas before and after test administration.

- All students eligible for testing are encouraged to participate in the testing program.
- Test directions related to time are strictly adhered to.

Those deemed least important (though still having average ratings over 3.0) included:

- There is a written policy with procedures that require the school superintendent to publicly report all breaches in test security ($\underline{M} = 3.1$).
- Students take exams in only in designated classrooms (not in a large room such as a cafeteria, auditorium, or library) ($\underline{M} = 3.8$).
- All proctors provide written verification that proper test administration procedures and security were adhered to ($\underline{M} = 3.8$).
- Auditors routinely monitor test administration including adherence to test security ($\underline{M} = 3.9$).

Table 3

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Degree of Importance of the Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

		Extremely					\underline{M}	\underline{SD}
		5	4	3	2	1		
1. Students take exams only in designated classrooms (not in a large room such as a cafeteria, auditorium, or library).	\underline{n} %	25 39.7	18 28.6	9 14.3	7 11.1	4 6.3	3.8	1.24
2. All test proctors must be trained in test administration procedures, including test security.	\underline{n} %	2 3.2	10 15.9	51 81.0	0 0	0 0	4.7	.47
3. All proctors provide written verification that proper test administration procedures and security were adhered to.	\underline{n} %	24 38.1	11 17.5	20 31.7	6 9.5	2 3.2	3.8	1.15
4. All students are informed of obligations to abide by guidelines such as no unauthorized giving, receiving, or reproducing unauthorized materials or information.	\underline{n} %	34 54.8	21 33.9	6 9.7	1 1.6	0 0	4.4	.74
5. All test proctors are informed of acceptable responses to student questions posed during test administration.	\underline{n} %	43 68.3	12 19.0	6 9.5	2 3.2	0 0	4.5	.80

Table 3 (Continued)

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Degree of Importance of the Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

		xtremel				Not at a		<u>M</u>	<u>SD</u>
		5	4	3	2	1			
. All test materials are kept in locked, secured areas before and after test administration.	<u>n</u> %	56 88.9	6 9.5	1 1.6	0 0	0 0	4.9	.47	
. Supplemental materials are provided only during appropriately specified sections and are collected when completed.	<u>n</u> %	49 79.0	10 16.1	3 4.8	0 0	0 0	4.7	.54	
. All students eligible for testing are encouraged to participate in the testing program.	<u>n</u> %	55 88.7	6 9.7	1 1.6	0 0	0 0	4.9	.38	
. No ESL/LEP students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	<u>n</u> %	55 87.3	6 9.5	2 3.2	0 0	0 0	4.8	.45	
0. No special education students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	<u>n</u> %	54 85.7	6 9.5	3 4.8	0 0	0 0	4.8	.50	
1. All policies/procedures for regular testing are strictly adhered to during make-up testing sessions.	<u>n</u> %	54 87.1	7 11.3	0 0	0 0	1 1.6	4.8	.59	
12. Test directions related to time are strictly adhered to.	<u>n</u> %	56 84.8	5 7.6	0 0	0 0	0 0	4.9	.28	
3. There are specific written procedures that require proctors to report all breaches in test security.	<u>n</u> %	43 65.2	15 22.7	4 6.1	0 0	1 1.5	4.6	.76	
14. There are written procedures that require building administrators to report all breaches in test security.	<u>n</u> %	47 71.2	11 16.7	3 4.5	2 3.0	0 0	4.6	.72	
5. There are written procedures that require the district test director to report all breaches in test security.	<u>n</u> %	51 82.3	6 9.7	4 6.5	0 0	1 1.6	4.7	.73	
6. There is a written policy with procedures that require the school superintendent to publicly report all breaches in test security.	<u>n</u> %	13 21.3	11 18.0	22 36.1	4 6.6	11 18.0	3.1	1.34	
7. All educators involved with test materials are required to sign a security agreement	<u>n</u> %	32 51.6	13 21.0	8 12.9	4 6.5	5 8.1	4.0	1.29	
8. There is a policy that specifically states repercussions of test security breaches by a student.	<u>n</u> %	26 42.6	18 29.5	14 23.0	1 1.6	2 3.3	4.1	1.01	
9. There is a policy that specifically states repercussions of test security breaches by an educator.	<u>n</u> %	42 65.6	17 26.6	5 7.8	0 0	0 0	4.6	.64	

Table 3 (Continued)

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Degree of Importance of the Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

		Extremely			Not at all		<u>M</u>	<u>SD</u>
		5	4	3	2	1		
20. There is a process whereby students and/or educators may confidentially report breaches of test security.	<u>n</u>	30	22	9	0	1	4.3	.84
	%	48.4	35.5	14.5	0	1.6		
1. Auditors routinely monitor test administration including adherence to test security.	<u>n</u>	26	14	18	4	2	3.9	1.10
	%	40.6	21.9	28.1	6.3	3.1		
2. The State Department of Education must provide clear written policies and procedures and guidelines regarding test security.	<u>n</u>	56	5	3	0	0	4.8	.49
	%	87.5	7.8	4.7	0	0		
3. The State Department of Education must provide training of test administration, especially test security.	<u>n</u>	44	11	6	2	1	4.5	.91
	%	68.8	17.2	9.4	3.1	1.6		
4. The State Department of Education must have a policy on repercussions for educators who breach test security.	<u>n</u>	44	12	7	1	0	4.5	.75
	%	68.8	18.8	10.9	1.6	0		

Existence of Actions, Procedures, and/or Policies

As noted within Table 4, test directors rated the following actions, procedures, and/or policies most in existence within their districts to deter test security breaches:

- All students eligible for testing are encouraged to participate in the testing program (M = 4.6).
- Supplemental materials are provided only during appropriately specified sections and are collected when completed (M = 4.5).
- All test materials are kept in locked, secured areas before and after test administration (M = 4.5).
- Test directions related to time are strictly adhered to (M = 4.5).

Those deemed least important included:

- There is a written policy with procedures that require the school superintendent to publicly report all breaches in test security ($\underline{M} = 2.2$).
- Auditors routinely monitor test administration including adherence to test security ($\underline{M} = 3.0$).
- There is a policy that specifically states repercussions of test security breaches by a student ($\underline{M} = 3.1$).
- All proctors provide written verification that proper test administration procedures and security were adhered to ($\underline{M} = 3.2$).
- There is a process whereby students and/or educators may confidentially report breaches of test security ($\underline{M} = 3.3$).

Table 4

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Degree of Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

		xtremel					Not at a		\underline{M}	\underline{SD}
		5	4	3	2	1				
1. Students take exams only in designated classrooms (not in a large room such as a cafeteria, auditorium, or library).	\underline{n}	20	26	12	2	3	3.9	1.03		
	%	31.7	41.3	19.0	3.2	4.8				
2. All test proctors must be trained in test administration procedures, including test security.	\underline{n}	28	23	11	1	0	4.2	.80		
	%	44.4	36.5	17.5	1.6	0				
3. All proctors provide written verification that proper test administration procedures and security were adhered to.	\underline{n}	23	6	9	10	15	3.2	1.63		
	%	36.5	9.5	14.3	15.9	23.8				
4. All students are informed of obligations to abide by guidelines such as no unauthorized giving, receiving, or reproducing unauthorized materials or information.	\underline{n}	21	18	16	5	3	3.8	1.14		
	%	33.3	28.6	25.4	7.9	4.8				
5. All test proctors are informed of acceptable responses to student questions posed during test administration.	\underline{n}	26	21	12	3	1	4.1	.97		
	%	41.3	33.3	19.0	4.8	1.6				
6. All test materials are kept in locked, secured areas before and after test administration.	\underline{n}	38	20	5	0	0	4.5	.64		
	%	60.3	31.7	7.9	0	0				

Table 4 (Continued)

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Degree of Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

		xtremel			Not at a		<u>M</u>	<u>SD</u>
		5	4	3	2	1		
. Supplemental materials are provided only during appropriately specified sections and are collected when completed.	<u>n</u>	35	21	5	1	0	4.5	7.2
	%	56.5	33.9	8.1	1.6	0		
. All students eligible for testing are encouraged to participate in the testing program.	<u>n</u>	42	16	4	0	0	4.6	.61
	%	67.7	25.8	6.5	0	0		
. No ESL/LEP students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	<u>n</u>	36	19	7	1	0	4.4	.76
	%	57.1	30.2	11.1	1.6	0		
0. No special education students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	<u>n</u>	36	13	12	1	1	4.3	.94
	%	57.1	20.6	19.0	1.6	1.6		
1. All policies/procedures for regular testing are strictly adhered to during make-up testing sessions.	<u>n</u>	28	24	7	2	1	4.2	.89
	%	45.2	38.7	11.3	3.2	1.6		
2. Test directions related to time are strictly adhered to.	<u>n</u>	39	19	3	0	0	4.6	.59
	%	63.9	31.1	4.9	0	0		
3. There are specific written procedures that require proctors to report all breaches in test security.	<u>n</u>	33	12	9	4	5	4.0	1.29
	%	52.4	19.0	14.3	6.3	7.9		
4. There are written procedures that require building administrators to report all breaches in test security.	<u>n</u>	39	6	8	5	5	4.1	1.34
	%	61.9	9.5	12.7	7.9	7.9		
5. There are written procedures that require the district test director to report all breaches in test security.	<u>n</u>	42	5	7	3	5	4.2	1.30
	%	67.7	8.1	11.3	4.8	8.1		
6. There is a written policy with procedures that require the school superintendent to publicly report all breaches in test security.	<u>n</u>	6	4	12	16	24	2.2	1.30
	%	9.7	6.5	19.4	25.8	38.7		
7. All educators involved with test materials are required to sign a security agreement	<u>n</u>	28	6	8	7	13	3.5	1.60
	%	45.2	9.7	12.9	11.3	21.0		
8. There is a policy that specifically states repercussions of test security breaches by a student.	<u>n</u>	17	8	12	12	12	3.1	1.50
	%	27.9	13.1	19.7	19.7	19.7		
9. There is a policy that specifically states repercussions of test security breaches by an educator.	<u>n</u>	32	8	8	7	8	3.6	1.39
	%	50.8	12.7	12.7	11.1	12.7		
0. There is a process whereby students and/or educators may confidentially report breaches of test security.	<u>n</u>	19	11	12	12	8	3.3	1.43
	%	30.6	17.7	19.4	19.4	12.9		

Table 4 (Continued)

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceived Degree of Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

		Extremely			Not at all		<u>M</u>	<u>SD</u>
		5	4	3	2	1		
1. Auditors routinely monitor test administration including adherence to test security.	<u>n</u> %	14 21.9	11 17.2	12 18.8	12 18.8	15 23.4	3.0	1.48
2. The State Department of Education must provide clear written policies and procedures and guidelines regarding test security.	<u>n</u> %	34 53.1	12 18.8	12 18.8	2 3.1	3 4.7	3.7	1.29
3. The State Department of Education must provide training of test administration, especially test security.	<u>n</u> %	25 39.1	7 10.9	16 25.0	6 9.4	10 15.6	3.5	1.48
4. The State Department of Education must have a policy on repercussions for educators who breach test security.	<u>n</u> %	23 36.5	12 19.0	14 22.2	7 11.1	7 11.1	3.6	1.38

Difference between Perceived Importance and Existence of Actions, Procedures, and/or Policies

Table 5 summarizes the actions, procedures, and/or policies that are perceived by test directors to have the biggest difference between perceived level of importance and existence. A statistically significant difference was found to exist between the perceived importance and existence ratings of 23 of the 24 statements. Most of these were significant at the $p < .001$. These results indicate a generally higher level of perceived importance for actions, guidelines and/or policies than perhaps that which has been in place. The only non-significant finding related to students taking exams only in designated classrooms and not a large room such as a cafeteria, auditorium, or library.

Table 5

Difference between Perceived Importance and Degree of Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

	Importance	Existence	t	Sign.
1. Students take exams only in designated classrooms (not in a large room such as a cafeteria, auditorium, or library).	3.8	3.9	-.49	ns
2. All test proctors must be trained in test administration procedures, including test security.	4.7	4.2	6.19	***
3. All proctors provide written verification that proper test administration procedures and security were adhered to.	3.8	3.2	4.61	***
4. All students are informed of obligations to abide by guidelines such as no unauthorized giving, receiving, or reproducing unauthorized materials or information.	4.4	3.8	5.34	***
5. All test proctors are informed of acceptable responses to student questions posed during test administration.	4.5	4.1	5.11	***
6. All test materials are kept in locked, secured areas before and after test administration.	4.9	4.5	3.68	***
7. Supplemental materials are provided only during appropriately specified sections and are collected when completed.	4.7	4.5	3.22	**
8. All students eligible for testing are encouraged to participate in the testing program.	4.9	4.6	3.39	**
9. No ESL/LEP students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	4.8	4.4	4.12	***
10. No special education students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	4.8	4.3	4.59	***
11. All policies/procedures for regular testing are strictly adhered to during make-up testing sessions.	4.8	4.2	6.40	***
12. Test directions related to time are strictly adhered to.	4.9	4.6	4.75	***
13. There are specific written procedures that require proctors to report all breaches in test security.	4.6	4.0	4.50	***
14. There are written procedures that require building administrators to report all breaches in test security.	4.6	4.1	4.44	***
15. There are written procedures that require the district test director to report all breaches in test security.	4.7	4.2	3.99	***

* $p < .05$. ** $p < .01$. *** $p < .001$, two-tailed.

Table 5 (Continued)

Difference between Perceived Importance and Degree of Existence of Actions, Procedures, and/or Policies to Deter Test Security Breaches

	Importance	Existence	t	Sign.
6. There is a written policy with procedures that require the school superintendent to publicly report all breaches in test security.	3.1	2.2	7.05	***
7. All educators involved with test materials are required to sign a security agreement	4.0	3.5	3.93	***
8. There is a policy that specifically states repercussions of test security breaches by a student.	4.1	3.1	6.10	***
9. There is a policy that specifically states repercussions of test security breaches by an educator.	4.6	3.6	4.58	***
10. There is a process whereby students and/or educators may confidentially report breaches of test security.	4.3	3.3	5.95	***
1. Auditors routinely monitor test administration including adherence to test security.	3.9	3.0	6.28	***
2. The State Department of Education must provide clear written policies and procedures and guidelines regarding test security.	4.8	3.7	7.14	***
3. The State Department of Education must provide training of test administration, especially test security.	4.5	3.5	6.50	***
4. The State Department of Education must have a policy on repercussions for educators who breach test security.	4.5	3.6	5.58	***

* $p < .05$. ** $p < .01$. *** $p < .001$, two-tailed.

Perceived Influence of High-stakes Testing

Over ninety percent of the test directors feel that over the past five years higher stakes have been attached to test results in their district. Most (*i.e.*, 88.6%) feel that higher stakes will be attached to test results over the next five years. With a five-point Likert-type scale and “5” indicating “strongly agree” and 1 “strongly disagree,” individuals gave moderate ratings to high-stakes testing enhancing student performance outcomes ($\underline{M} = 3.0$) and school improvement efforts ($\underline{M} = 3.4$). They also agree that “high-stakes testing does increase the potential of breaches in test security (see Table 6).

Table 6

Frequency Distribution, Means, and Standard Deviations of Test Directors' Perceptions of the Impact of High-stakes Tests

		Extremely					Not at all		<u>M</u>	<u>SD</u>
		5	4	3	2	1				
1. Over the past 5 years, more "high-stakes" have been attached to test results in my district.	<u>n</u> %	51 79.7	9 14.1	2 3.1	2 3.1	0 0	4.7	.68		
2. In the next five years, more "high-stakes" will be attached to test results in my school district.	<u>n</u> %	44 66.7	14 21.9	6 9.4	0 0	0 0	4.6	.66		
3. "High-stakes" testing enhances student performance outcomes.	<u>n</u> %	5 7.8	19 29.7	21 32.8	11 17.2	8 12.5	3.0	1.14		
4. "High-stakes" testing enhances school improvement efforts.	<u>n</u> %	6 9.4	32 50.0	14 21.9	7 10.9	5 7.8	3.4	1.10		
5. "High-stakes" testing increases the potential of breaches in test security.	<u>n</u> %	38 60.3	20 31.7	3 4.8	2 3.2	0 0	3.5	.76		
6. Test security in a "high-stakes" environment can be a reality.	<u>n</u> %	27 46.6	25 43.1	4 6.9	2 3.4	0 0	4.3	.86		

Types of Test Security Breaches Experienced

A total of 25 (37.9%) individuals opted to provide a student-related incident and 34 (51.5%) an educator-related incident leading to a breach in test security. While each of these comments are provided in Tables 7 and 8, respectively, a thematic analysis yielded some interesting patterns. Student-related offenses tended to be tied to using of inappropriate materials, stealing secure materials, sharing answers, working on unallowable section of the test, and providing false identities. Educator-related offenses similarly included stealing and/or recording information from test secure materials. They also included coaching inappropriately, sharing and/or allowing students access to obtaining answers, deviating from published administration directions, and changing or assistance in modifying student answers.

Table 7

Examples Cited by District Test Directors of Educator-related Breaches in Test Security

-
- Student used the math reference sheet designed for the norm-referenced section of the test. The NRT portion of the test was invalidated.
 - A student from another district registered to take the test in the summer. The student had ID and registered as a male. The next year a student from the same school with the same ID registered as a female under the same name. The investigation is pending at the state level.
 - Several students were caught cheating on a mandated “high-stakes” test. Their scores were pulled from the total aggregate of scores at the site. The student’s parents were given a conference and the students themselves were disciplined with Saturday school.
 - Student tore out a page of a state math test and left the room before proctor realized what had happened. Student was located and page was returned. Student’s test was voided.
 - Evidence that students were passing on information about the content of a graduation demonstration exam (math) as evidenced by increase in mean scores by period (of day) during which exam was taken. Consequently we narrowed this testing window to a.m. only as opposed to all day.
 - Missing exam booklets – students never caught.
 - The student’s score was invalidated and throughout the district non-colored paper is provided for all students for scrap paper so that it is obvious if the student has brought in a sheet of paper or simply written down the information after coming to the testing session.
 - Lost writing prompt.
 - I subscribe to the Squirrel Principle; namely, that there is little we humans can do to keep a determined squirrel from reaching the bird feeder. I apply this to the issue of integrity of testing materials. Anyone who is determined to know the items on the test before administering the test can surely do that, no matter how securely we try and keep the booklets.
 - Cheating, if it occurs, would be handled by the school and result in the student being suspended.
 - Student test results have been invalidated if the student is discovered cheating or if the student does not complete the test.
 - These are handled at the school. My only quasi-involvement is when they steal a test.
 - Student worked on previously completed section of test. Test was invalidated. One student shared info with another. Even though it was not solicited, the test for the 2nd student was invalidated. Both situations involved the state “exit” exam.
 - Photocopied paper from a state assessment were used to instruct/prepare students. The copied material (5-8 pages) appears to be from a 1997 version of the test and their original has proved untraceable.
-

Table 7 (Continued)

Examples Cited by District Test Directors of Educator-related Breaches in Test Security

-
- A student left a testing room without permission and threw away his book. The student was punished. The test administrator and campus coordinator were reprimanded and new procedures were established.
 - Students were passing notes while a substitute teacher was proctoring the exam. The substitute read the note but did not realize that the material on the test was being discussed by the students. When the regular teacher returned, she realized what was going on and invalidated the student's exam.
 - High school teacher allowed students to take writing assessment material home. Principal notified test director who invalidated the results and notified state department. No consequences to teacher except maybe a verbal comment by principals.
 - Some students do not follow directions not to look forward or back in multi-part test. Students talked on the inventory testing.
 - Some test booklets were originally misplaced at a middle school but later they were located and returned to us. The consequences were fuzzy but the school had much frustration until the books were located.
 - Students were allowed to use calculators. A student reported. Teacher was questioned. Information found to be true; teacher reprimanded. Test scores pulled from classroom averages and site averages.
 - It was reported that two students shared answers when sitting next to each other. The proctor (there is both an examiner and proctor in each classroom) reported the incident to test coordinator who reported it to me. I talked to the principal. Children and proctor/examiner were interviewed. Children were administered an alternate form of sub-test affected. This allegation was referred to the central office for investigation. The office will determine if further investigation is necessary and if any disciplinary action is warranted.
 - Students were not monitored during a break in testing students and discussed test items.
 - A student grabbed a test and ran out of the classroom and building. A police officer went to the boy's house and confiscated the test. The boy was suspended.
 - State writing test has only one prompt. Students shared prompt with students testing during make-up period. These latter students were caught with draft essay. Scores were cancelled.
 - Student had contest-related material under desk during high school high-stakes test. Proctor "unaware" but observed by state inspector. Student results invalidated. Proctor reprimanded but without official sanction.
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Table 8

Examples Cited by District Test Directors of Educator-related Breaches in Test Security

-
- Coaching and extended time were reported in one classroom. The principal confronted the teacher with the allegations. Although the teacher’s accounting of events seem plausible, scores for that class will be closely examined when they arrive in the district.
 - The loss of a testing manual.
 - Teacher allowed use of student note material on test. Teacher resigned. Student scores allowed and materials would not have significantly aided them in testing.
 - A staff developer, teaching a writing strategy, asked the teachers in the group what the writing prompt was on the test just administered. The teachers told her. The prompt is embargoed for a certain time period and is not to be discussed until a certain date. The consultant was not aware of the rules for the writing test security.
 - An oral administration manual appeared to have been lost at a school. Materials were kept in locked storage. A thorough search was conducted. The manual was never found. Given the quality of materials that year it may never have been received. Materials checked in number ranges.
 - A principal was found to have utilized non-approved “prep” materials. The principal was reprimanded and a note placed in their personnel file.
 - Teacher copied questions out of a test prior to administration. Answer key was made and student answer documents were unofficially scored. Teacher was called to State Department for hearing. Credentials were suspended for one year.
 - Items on a vocabulary test were specifically taught to students in an elementary school. The incident was reported by principal. The student informed the principal that the words had been taught. The student produced class notes with word lists. Teacher was subsequently disciplined.
 - Writing prompt given early in year was “similar” to test. Teacher got prompt at a statewide workshop. Remedy: Test Coordinator warned not to use material unless they have documentation of where it was developed.
 - A test administrator was found to have been reading a student test booklet during the administration of the test. Statements were gathered from this individual and other adults in the testing room. After the investigation a formal report was made to the SDE and ultimately a letter of reprimand was sent to the teacher and placed in the personnel folder as well a warning that future violations of test security would cause teacher certification be revoked.
 - Teacher cheated though not fired. Reprimanded and transferred. She resigned.
 - A teacher released some tests that are considered “secure” to the district next door. This allowed teachers in the neighboring district to see/keep copies of tests they were not supposed to have.
-

Table 8 (Continued)

Examples Cited by District Test Directors of Educator-related Breaches in Test Security

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- A teacher published secure high school course exams in a newspaper operated by a faction of the teachers' union. He was fired and the district sued him for copyright infringement. He counter-sued citing First Amendment rights. The counter-suit was thrown out by the judge and the infringement suit is still pending.
 - An educator has been reported to the state department of education. After the student turns in the test booklet, the teacher notices no responses in some areas. The test booklet was returned to the student with an encouragement to continue. The teacher looked ahead/read the math test and prepared the class by working with the class on those specific math problems the day before taking the math tests.
 - Teacher marked the test answer sheet of students who finished early and said "check" these you got them wrong! She did it repeatedly for some students until time was up. She lost bonus \$ and career ladder \$, about \$3-4K and was reprimanded. She was also transferred to another school.
 - Educator assisted students with written composition on a state test. Educator was suspended 5 days without pay by local action and received permanent reprimand on state teacher credential.
 - Building coordinator threw away damaged test booklets instead of returning them to district coordinator. Building coordinator's apparent inability to read and follow instructions has earned a letter of reprimand to the person's permanent file.
 - The coordinator of a school lost a set of field test booklets. After an extended search it was presumed the box they were in was picked up by a custodian. The box should have been in locked storage. Memos to the permanent files for the campus coordinators were written by the district's investigator and the incident was logged in the principal's evaluation.
 - Asking student to reconsider answers that are incorrect. Student retained at end of school day and asked to redo some work on tests. Insufficient evidence. Discussed allegation with teacher, principal, area supervisor, and test director.
 - One teacher took a copy of the test aside and used it to prepare her studies.
 - Teacher placed parallel test form items on overhead for student drill and discussion.
 - Xeroxing a student's constructed response so that when results are returned the teacher could see exactly what the student wrote (compare to the score received).
 - Tests were lost. Teachers review/examine test items during testing.
 - Some teachers were dismissed three years ago due to "test security" breaches. This was before I came to the district position of assessment.
 - Teacher did not follow time limits for sub-tests. Investigated teacher received reprimand. All student scores pulled from aggregated data. Parents were informed that data results did not reflect standardized administration.
-

Table 8 (Continued)

Examples Cited by District Test Directors of Educator-related Breaches in Test Security

-
- A teacher was reported to have provided correct answers to several children. The students were individually interviewed by the principal as to the incident. I interviewed the teacher. It was determined that the children should retake an alternate form of the test.
 - Item response data were analyzed by the central board. The findings have been presented at a disciplinary hearing in which it will be determined whether the teacher should be terminated.
 - Teacher left test booklet in classroom after testing. Booklet was lost.
 - Principal thought to have given students coaching/encouragement to “go on; you can do more”. Teacher told this was inappropriate and I collected tests. Teacher was disciplined after investigation.
 - Our state uses an NRT (commercial shelf product) originally implemented in 3 grades only. Publishing company helped passed out off level tests with no warnings. Over next two years more grades were tested and with higher stakes. Teacher used what she thought were sample items that turned out to be new. Teacher will probably be reprimanded for copyright violation by district. District will be cited for failure to use approved practice materials. The state and company deny workshops were ever held.
 - A new principal discovered that the test scores for a 3rd grade teacher from the previous year were unrealistically high (almost all most perfect scores). A joint investigation was conducted by the assessment office and principal that led to findings of fact. They were reported to employer and disciplinary process.
 - Changing marking and answer sheets. Reading a reading test to students.
 - Last spring a middle school math teacher used a homework/worksheet just before standardized testing. This compromised scores for about 130 students. We were able to work with our state department.
 - Alleged assistance in NRT administration – working, erasures, etc.
-

Summary, Discussions, and Implications of Results

This study had sought to expand upon the previous work of Mehrens (1993) and NCME (1991) and others to examine district test directors’ perceptions of test security in a high-stakes environment.

With surveys responses received from 66 individuals representing school districts from more than half the states and over 4.4 million students, results indicated that most are implementing high-stakes test program and nearly half have experienced a breach in security the past two years. These directors indicate that practices recommended in *The Standards* (AERA *et al.*, 1985, 1999) are generally widely prevalent within their districts. The provided listing of 24 statements representing

actions, guidelines, and/or policies that may be implemented to deter security breaches were deemed to be important by the test directors. Yet, level of prevalence did not meet the degree of established significance in 23 of these areas. There is strong agreement that the stakes placed on testing has risen the past five years and they project for this trend to continue into the next five years. Thematic analyses of open-ended comments indicated that both student and educator-related offenses included stealing and/or recording information from secure materials. Students also tended to use inappropriate materials, share answers, work on unallowable sections of the test, and present false identities. Educator-related offenses included coaching inappropriately, sharing and/or allowing students access to obtaining answers, deviating from published administration directions, and changing or assistance in modifying student answers. Not surprisingly, there was found to be a statistically significant relationship between those implementing high-stakes testing programs and breaches in security.

The results of this study may be pertinent to test developers, test directors, test administrators, and test users. By gaining a better understanding of what test directors feel are important steps to maintaining test security, individuals can seek to provide and/or implement those steps which have been identified. Additionally, one may relate the emerging themes of types of student and educator breaches to the associated actions, policies, and/or guidelines in a proactive method to help deter cheating. Implications are also realized for professional development training. For example, one may use the vignettes presented within this report as part of discussion groups held on enhancing test secure practices. Researchers may wish to further explore the types of actions taken by districts deemed most successful in deterring these types of breaches. Additionally, with the perception that high-stakes testing will continue to increase in the coming years, on-going research should continue

to track patterns over time and to develop and assess new methods to continue to deter breaches such as the use of technology.

Appendix A: Cover Letter Accompanying Survey



Dear NATD Colleague:

With emphasis being placed on high-stakes accountability testing throughout the United States, much attention has been given to test security. But, is test security in a high-stakes environment a myth or can it be a reality? What are the perceptions of those of us who work as testing directors in school districts?

This topic of test security is of interest to those of us who are responsible for facilitating testing programs in today's high-stakes testing environment. As such, the purpose of the enclosed survey is to collect information and investigate the perceptions of test directors about test security, particularly in a high-stakes testing environment. Results may then be used to help improve and enhance test security practices in the future.

As a testing director, **your perspective is essential** and will help develop solutions in the area of high-stakes testing. Thus, your participation in completing and returning the attached survey is most important. The results of this study will be incorporated as one component of our organization's invited symposium during the National Council Measurement in Education conference in Seattle, Washington, in April and will be posted on the NATD homepage at <http://www.natd.org>.

I would appreciate it if you would return your completed survey by **MARCH 18** via FAX to my attention at (757) 638-3303.

Thank you in advance for completing this important survey in a timely manner and I look forward to sharing the results with you.

Sincerely,

Mary E. Yakimowski

NATD Vice President

Appendix B: Survey Distributed to Test Directors

TEST DIRECTORS' PERCEPTIONS OF TEST SECURITY



PART 1: DISTRICT AND DIRECTOR CHARACTERISTICS

- Student enrollment (2000-01): _____ Percent on free/reduced lunch: _____%
- Grade levels served by district: _____ Percent ESL/LEP: _____%
- State in which you are employed: _____ Percent special education: _____%
- Number of years as testing director: _____ Projected years until retirement? _____ Years
- Type of district in which you serve as test director (*Please circle only one.*): Urban Suburban Rural
- Does your district implement high-stakes testing as defined as a standardized testing program administered by the district or state that has consequences for students, teachers, and/or schools? (*Circle one.*) Yes No
- In the past two years, has there been a test security breach within your district? Yes No

PART 2: TEST SECURITY-RELATED ACTIONS

Please use this five-point scale to circle your response to indicate how often each activity noted below occurs in your district.

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
5	4	3	2	1

1. Educators who administer and those responsible for high-stakes tests in my district take appropriate security precautions before, during, and after administration.	4	3	2	1	
2. Educators in my district avoid any conditions in the conduct of the administration of high-stakes tests that might invalidate the results.	5	4	3	2	1
3. Reasonable efforts are made by educators in my district to assure the validity of test scores by eliminating opportunities for test-takers to attain scores by fraudulent means.	5	4	3	2	1
4. Reasonable efforts are made by students in my district to attain test scores by acceptable means.	5	4	3	2	1
5. Should scores in my district be withheld or canceled, the type of evidence and procedures used to determine this is fully explained to all test takers impacted.	5	4	3	2	1
6. Should a test security irregularity be purported in my district, test-takers are given advance warning and an opportunity to provide evidence that scores should not be canceled or withheld.	5	4	3	2	1
7. Should a test security irregularity be purported in my district, reasonable efforts are made to ensure that contrary, as well as supporting evidence is examined to settle the matter of irregularity as well as validity of the score in question.	4	3	2	1	

PART III: TEST SECURITY PRACTICES

For each of the statements below, please answer two questions. First, how important is this practice to you in maintaining test security? Second, how much do you feel this practice routinely exists within your district? In rating the importance, use the five-point scale with “5” indicating “extremely important” and “1” indicating “not important at all.” To indicate degree practice exists in your school district, use the five-point scale with “5” indicating “strongly agree” and “1” indicating “strongly disagree.”

	<u>How important?</u>					<u>Agree it is existent?</u>				
	<i>Extremely Important</i>			<i>Not impo- tant at a</i>		<i>Strongly Agree</i>			<i>Strongl Disagree</i>	
1. Students take exams in only in designated classrooms (not in a large room such as a cafeteria, auditorium, or library).	5	4	3	2	1	5	4	3	2	1
2. All test proctors must be trained in test administration procedures, including test security.	5	4	3	2	1	5	4	3	2	1
3. All proctors provide written verification that proper test administration procedures and security were adhered to.	5	4	3	2	1	5	4	3	2	1
4. All students are informed of obligations to abide by guidelines such as no unauthorized giving, receiving, or reproducing unauthorized materials or information.	5	4	3	2	1	5	4	3	2	1
5. All test proctors are informed of acceptable responses to student questions posed during test administration.	5	4	3	2	1	5	4	3	2	1
6. All test materials are kept in locked, secured areas before and after test administration.	5	4	3	2	1	5	4	3	2	1
7. Supplemental materials are provided only during appropriately specified sections and are collected when completed.	5	4	3	2	1	5	4	3	2	1
8. All students eligible for testing are encouraged to participate in the testing program.	5	4	3	2	1	5	4	3	2	1
9. No ESL/LEP students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	5	4	3	2	1	5	4	3	2	1
10. No special education students are intentionally excluded from testing due to the potential impact of their test scores on accountability structures (such as overall school results).	5	4	3	2	1	5	4	3	2	1
11. All policies/procedures for regular testing are strictly adhered to during make-up testing sessions.	5	4	3	2	1	5	4	3	2	1
12. Test directions related to time are strictly adhered to.	5	4	3	2	1	5	4	3	2	1
13. There are specific written procedures that require proctors to report all breaches in test security.	5	4	3	2	1	5	4	3	2	1
14. There are written procedures that require building administrators to report all breaches in test security.	5	4	3	2	1	5	4	3	2	1
15. There are written procedures that require the district test director to report all breaches in test security.	5	4	3	2	1	5	4	3	2	1
16. There is a written policy with procedures that require the school superintendent to publicly report all breaches in test security.	5	4	3	2	1	5	4	3	2	1
17. All educators involved with test materials are required to sign a security agreement	5	4	3	2	1	5	4	3	2	1
18. There is a policy that specifically states repercussions of test security breaches by a student.	5	4	3	2	1	5	4	3	2	1

	<u>How important?</u>					<u>Agree it is existent?</u>				
	<i>Extremely Important</i>					<i>Not important at a</i>	<i>Strongly Agree</i>			<i>Strongly Disagree</i>
9. There is a policy that specifically states repercussions of test security breaches by an educator.	5	4	3	2	1	5	4	3	2	1
0. There is a process whereby students and/or educators may confidentially report breaches of test security.	5	4	3	2	1	5	4	3	2	1
1. Auditors routinely monitor test administration including adherence to test security.	5	4	3	2	1	5	4	3	2	1
2. The State Department of Education must provide clear written policies and procedures and guidelines regarding test security.	5	4	3	2	1	5	4	3	2	1
3. The State Department of Education must provide training of test administration, especially test security.	5	4	3	2	1	5	4	3	2	1
4. The State Department of Education must have a policy on repercussions for educators who breach test security.	5	4	3	2	1	5	4	3	2	1

PART IV: PERCEPTIONS OF TEST SECURITY OVER TIME

Please use this five-point scale to circle your response to indicate the extent to which you agree with the statement.

STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
5	4	3	2	1

1. Over the past 5 years, more “high-stakes” have been attached to test results in my district.	5	4	3	2	1
2. In the next five years, more “high-stakes” will be attached to test results in my school district.	5	4	3	2	1
3. “High-stakes” testing enhances student performance outcomes.	5	4	3	2	1
4. “High-stakes” testing enhances school improvement efforts.	5	4	3	2	1
5. “High-stakes” testing increases the potential of breaches in test security.	5	4	3	2	1
6. Test security in a “high-stakes” environment can be a reality.	5	4	3	2	1

PART V: TEST SECURITY BREACHES *(Please feel free to use the reverse side to complete these questions.)*

1. Please briefly describe a student-related test security breach that has occurred in your district. Share some of the specifics related to the breach along with the consequences. *(Do not use the student’s name. Also, please note that anonymity of your name and that of the district’s will be assured.)*

2. Please briefly describe an educator-related test security breach that has occurred in your district. Share some of the specifics related to the breach and the consequences. *(Please do not use the educator’s name. Also, please note that anonymity of your name and that of the district’s will be assured.)*

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