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Management Information Report
STATE AND LOCAL NO. 04-01

DATE: February 03, 2004

TO: Raymond J. Simon
Assistant Secretary for Elementary and Secondary Education

FROM: 
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Regional Inspector General for Audit

SUBJECT: Best Practices for Management Controls Over Scoring of the State Assessments Required Under the *No Child Left Behind* Act of 2001

This **Management Information Report** presents information that the U.S. Department of Education (Department) may find beneficial in helping states to ensure data quality and reliability. Our review objectives were to (1) identify any current management controls required by the Department over scoring of the state assessments under the *No Child Left Behind* Act of 2001, and (2) provide the Department information on the types of management controls over scoring used for the National Assessment of Educational Progress (NAEP) and the benefits of having standards for a minimum level of controls.

REVIEW RESULTS

The Department should consider developing and issuing best practices for management controls over scoring of state assessments required under the *No Child Left Behind* Act of 2001, such as those used for NAEP, by states that it has identified as having cost effective controls, or the *Model Contractor Standards and State Responsibilities for State Testing Programs*. While the Department has issued *Information Quality Guidelines*, it has not issued specific guidance regarding the need for management controls over scoring of state assessments. The *No Child Left Behind* Act of 2001, Public Law 107-110, enacted January 8, 2002, places more emphasis on the accountability of results and defines consequences for schools that do not make adequate yearly progress. Interviews with officials from the Office of Elementary and Secondary Education (OESE), NCS Pearson (NCS), Educational Testing Service (ETS), our NAEP audit work, and review of prior audit reports indicate a need for the Department to consider developing and issuing best practices for management controls over scoring of state assessments.

The *No Child Left Behind* Act of 2001, Public Law 107-110, Section 1111(b)(3)(C)(iii), indicates state assessments shall be used for purposes for which such assessments are valid and reliable, and be consistent with relevant, nationally recognized professional and technical standards. In our opinion, for the assessment to be reliable, the data should be accurate.

Sound business practices require a minimum level of management controls over scoring the assessments conducted in response to the *No Child Left Behind* Act of 2001. Management controls over scoring should increase data quality and data reliability, which are important aspects of the Government Performance and Results Act. The design of each state's assessment should include some minimum level of management controls over scoring to ensure data quality and reliability. The types of controls would vary by the type of assessment and scoring process (electronic or manual) and type of question (multiple-choice and/or constructed response). These controls should cover the receipt and control, data quality, scoring, and analysis processes. The receipt and control process would cover the front end of the scoring process. For example, were all the assessments administered accounted for and available for scoring? The data quality process would cover (1) quality assurance steps taken to ensure all assessment booklets were properly entered into the scoring process and the questions were tied to the correct answer key, (2) monitoring during the scoring process, and (3) data quality assurance steps during and after scoring. The scoring process for constructed response type questions would consider controls such as scorer qualifications or interrater reliability (a measure of scorer consistency). The analysis process would cover quality assurance steps designed to ensure that the data analysis was performed properly and that data abnormalities were identified and resolved. For example, plausibility checks could be performed to compare data to expectations, historical precedent, and data obtained through other analysis methods to make sure the results make sense.

The Department and States Could Benefit From Developing and Issuing Best Practices for Management Controls Over Scoring State Assessments

Officials from OESE informed us that the Department does not require any management control standards over scoring of state assessments because it lacks the statutory and regulatory authority to require standards. All states have gone through on-site compliance reviews at least once based on the 1994 reauthorization standards. The Department is currently updating its Peer Reviewer Guidance for Evaluating Evidence of Final Assessments Under Title I of the Elementary and Secondary Education Act to incorporate aspects for the *No Child Left Behind* Act of 2001. The purpose of this guidance is (1) to inform states of useful evidence that complies with Title I of the Elementary and Secondary Education Act of 1965, as amended (Title I), final assessment requirements; and (2) to guide teams of peer reviewers who will examine evidence submitted by the states and advise the Department on whether a state has met Title I requirements. The intent of these requirements is to help states develop comprehensive assessment systems that provide accurate and valid information for holding districts and schools accountable for student performance against state standards. While the guidance

requires peer reviewers to examine the evidence that states' administration, scoring, analysis, and reporting procedures meet high standards, it leaves this qualitative judgment to the reviewer. Developing and issuing best practices for management controls over scoring would assist the reviewer and help the states develop assessment systems that provide accurate and valid information. The Department issued the *Information Quality Guidelines* to the states in February 2003 to provide policy and procedural guidance for maximizing the quality, objectivity, utility, and integrity of the information that it disseminates. Our review of the guidelines disclosed that they addressed high-level standards. The guidelines did not require management controls over scoring of state assessments. In general, the guidelines sought to have the states take steps to ensure that the data submitted to the Department was accurate and reliable. The method used to ensure data accuracy and reliability was left to the states to determine. Similar to the *Information Quality Guidelines*, the Department has the authority to issue guidelines for management controls over scoring.

Management Controls Over Scoring State Assessments Would Address Known and Potential Problems

Our NAEP audit work and prior audit work performed by the Office of Inspector General (OIG), General Accounting Office (GAO), and Texas State Auditor's Office have identified the need for states to improve their data quality and reliability controls. We performed audit work to determine whether management controls over scoring of the NAEP 2000 assessment were in place and adequate to provide reasonable assurance that the assessment results could be relied on during the period October 1, 1999, through September 30, 2000. We determined that the management controls over scoring of the NAEP 2000 assessment were adequate and generally working as intended.

However, discussions with ETS and NCS officials, as part of that audit, indicated management controls over scoring state assessments varied from state to state and there were no uniform minimum levels of management controls. States apply fewer and less complex management controls over scoring compared to NAEP. State funding, timelines, and the complexity of the assessments affected each state's use of management controls over scoring. State assessments generally required fewer management controls over scoring than NAEP because they tended to be less complicated and easier to score. States used more multiple-choice questions to lower the cost, the time required, and the risk of error. While the scope of the NAEP assessment is different than the scope of state assessments, many of the NAEP management controls could be used as a model of best practices for controls over scoring of the state assessments. (See the Appendix to this report for additional information on NAEP 2000 audit work.)

Prior audits by OIG and GAO identified the need for the Department to (1) improve its management controls over school improvement data to ensure the data are reliable, valid, and timely; (2) monitor state scoring of assessments; and (3) facilitate the sharing of information on experiences to reduce state expenses. Prior audit work performed by the OIG and GAO disclosed that the monitoring methods states use to ensure the accuracy of test contractors' scoring and reporting do not always provide adequate assurance of

complete and accurate scoring results. Most states hire a contractor to score Title I assessments. About one-third of these states did not monitor the scoring performed by the contractor. Some states that hire contractors have found errors in the contractors' scoring, and in some cases, these errors have had serious negative consequences for schools and students. Several states reported problems with scoring and calculation errors, regardless of whether they had monitoring procedures in place. These states reported that local district officials, parents, and state agency staff discovered the errors. (See the Appendix to this report for additional information on review of prior audit reports.)

Scoring contractors' errors can result in serious negative consequences for schools and students and lead to costly litigation and negative public opinion. Scoring errors could potentially jeopardize the successful implementation of the *No Child Left Behind Act of 2001*. Reports that include scoring errors would erroneously tell parents, communities, educators, and boards of education that schools are or are not doing well. Scoring errors may also have an effect on adequate yearly progress reported to the Department by the states. The Department uses adequate yearly progress in its decision making process, which could affect funding decisions made by states related to needed improvement, corrective action, or restructuring measures.

School districts and schools that fail to make adequate yearly progress toward statewide proficiency goals will, over time, be subject to improvement, corrective action, and restructuring measures aimed at getting them back on course to meet state standards. Schools that meet or exceed adequate yearly progress objectives or close achievement gaps will be eligible for State Academic Achievement Awards. (See Background for additional information on school improvement, corrective action, and restructuring measures.)

The Education Leaders Council and Accountability Works have assisted participating states in developing *Model Contractor Standards and State Responsibilities for State Testing Programs* (Model) to communicate expectations for the development and administration of state testing programs. The Model indicates that with high school diplomas, monetary awards for schools and school systems dependent on test results, it is imperative that state assessments be of high quality, meet professional standards for best practice, be delivered in a timely manner, and be scored accurately. With increasingly tight budgets, it is similarly imperative that assessment programs be developed and implemented in an efficient and cost effective manner without sacrificing quality.

Suggestion for Enhancing Management Controls over Scoring of State Assessments

We suggest that OESE consider developing and issuing best practices for management controls over scoring of state assessments required under the *No Child Left Behind Act of 2001*, such as those used for NAEP, states that OESE has identified as having cost effective controls, or the *Model Contractor Standards and State Responsibilities for State Testing Programs*.

BACKGROUND

No Child Left Behind Act of 2001

On January 8, 2002, President Bush signed into law the *No Child Left Behind* Act of 2001. The Act contains the President's four basic education reform principles: stronger accountability for results, increased flexibility and local control, expanded options for parents, and an emphasis on teaching methods that have been proven to work. An "accountable" education system involves several critical steps. These steps generally require states to (1) create standards, (2) test students' progress toward the standards, and (3) hold schools, districts, and themselves accountable for making adequate yearly progress toward meeting the state's standards. They also provide that performance will be publicly reported in district and state report cards, and that there will be consequences for districts and schools that continually fail to make adequate yearly progress toward the standards.

School districts and schools that fail to make adequate yearly progress toward statewide proficiency goals will, over time, be subject to improvement, corrective action, and restructuring measures aimed at getting them back on course to meet State standards. Schools that meet or exceed adequate yearly progress objectives or close achievement gaps will be eligible for State Academic Achievement Awards. The *No Child Left Behind* Act of 2001 significantly strengthens the school improvement provisions under section 1116 of Title I.

School Improvement (schools that fail to make adequate yearly progress for two consecutive years are subject to improvement measures)

The *No Child Left Behind* Act of 2001, section 1116(b) establishes the School Improvement requirements.

- Requires schools identified for improvement to develop two-year improvement plans incorporating strategies from scientifically-based research on how to strengthen the core academic subjects and address the specific issues that caused the school to be identified for improvement.
- Requires schools identified for improvement to reserve annually at least 10 percent of their Title I, Part A, funds for professional development that directly addresses the problems that led to identification for improvement.
- Requires local education agencies (LEA) to immediately provide students attending schools identified for improvement the option of attending another public school, including a public charter school, that is not identified for improvement. LEAs must provide or pay for transportation to the new school, within certain limits (see 20 percent requirement below).

- Permits students attending schools in the second year of school improvement (failure to make adequate yearly progress for three consecutive years) to use Title I funds to obtain supplemental educational services from a State approved public- or private-sector provider of their choice. The school improvement provisions cap the per-child cost of such services at the lesser of the LEA per-child Title I, Part A, allocation or the cost of services.
- Requires LEAs to “promptly” notify parents of eligible students attending schools identified for improvement, corrective action, or restructuring of their option to transfer their child to a better public school or to obtain supplemental educational services.
- Requires LEAs to give priority to low-achieving students from low-income families in making available choice and supplemental educational services. Only low-income children are eligible for supplemental services.
- Requires LEAs to use an amount equal to 20 percent of their Title I, Part A, allocations to pay for transportation of students exercising a choice option or obtaining supplemental educational services for eligible students. If an LEA reserves such funds from its Title I, Part A, allocation, the LEA may not reduce allocations to schools identified for corrective action or restructuring by more than 15 percent.
- Permits a student who transferred to another school under these provisions to remain in that school through its highest grade, but the LEA is required to provide transportation to the new school only as long as the student’s original school is subject to school improvement, corrective action, or restructuring.

Corrective Action

The *No Child Left Behind* Act of 2001, section 1116(b)(7) establishes the Corrective Action requirements.

- Strengthens corrective action (required after four years of failing adequate yearly progress) to include actions more likely to bring about meaningful change at the school, such as replacing school staff responsible for the continued failure to make adequate yearly progress, comprehensive implementation of a new curriculum (including professional development), and reorganizing the school internally. Corrective action schools also must continue to provide choice and supplemental services options to their students.

Restructuring

The *No Child Left Behind* Act of 2001, section 1116(b)(8) establishes the Restructuring requirements.

- Adds a new restructuring requirement for schools that fail to respond to corrective actions. If a school fails to make adequate yearly progress after one year of corrective action, it must begin planning for restructuring, which involves fundamental changes such as reopening the school as a public charter school, replacing all or most of the school's staff, or turning operation of the school over to a private management company with a demonstrated record of effectiveness, and implement its restructuring plan the following year. Schools identified for restructuring also must continue to provide choice and supplemental services options to their students.

Government Performance and Results Act

This review falls under the context of the Government Performance and Results Act (GPRA), specifically data quality and reliability. The Department's Strategic Plan for 2002 – 2007, goals one and six, are related to our review objectives and GPRA requirements.

Goal One, Create a Culture of Achievement, is related as it pertains to linking federal education funding to accountability for results. The *No Child Left Behind* Act of 2001 will strengthen Title I accountability by requiring states to implement statewide accountability systems covering all public schools and students. These systems must be based on challenging state standards in reading and mathematics, annual testing for all students in grades 3 through 8, and once in grades 10 through 12, and annual statewide progress objectives ensuring that all students reach proficiency within 12 years. Assessment results and state progress objectives must be broken out by poverty, race, ethnicity, disability, and limited English proficiency to ensure that no group is left behind. School districts and schools that fail to make adequate yearly progress toward statewide proficiency goals will, over time, be subject to improvement, corrective action, and restructuring measures aimed at getting them back on course to meet state standards. Schools that meet or exceed adequate yearly progress objectives or close achievement gaps will be eligible for State Academic Achievement Awards.

Goal Six, Establish Management Excellence, is related in two ways. First, developing and maintaining management controls, in this case, controls over scoring state assessments, establish excellence. Second, achieving budget and performance integration by linking funding decisions to results, establishes excellence. As indicated previously, schools that fail to make adequate yearly progress will be subject to improvement, corrective action, and restructuring measures, which could affect the state's funding decisions.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objectives of our review were to (1) identify any current management controls required by the Department over scoring of the state assessments under the *No Child Left Behind* Act of 2001 and (2) provide the Department information on the types of management controls over scoring used for NAEP and the benefits of having standards for a minimum level of controls. To accomplish our review objectives, we

1. interviewed officials from OESE, NCS, and ETS to gain an understanding of current management control standards over scoring of the state assessments required under the *No Child Left Behind* Act of 2001,
2. reviewed background materials, such as:
 - a. Prior OIG, GAO, and Texas State Auditor's Office audit reports;
 - b. *No Child Left Behind* Act of 2001;
 - c. U.S. Department of Education Strategic Plan for 2002 – 2007;
 - d. U.S. Department of Education, Information Quality Guidelines;
 - e. Peer Reviewer Guidance For Evaluating Evidence of Final Assessments Under Title I of the Elementary and Secondary Act, dated November 1999;
 - f. Minnesota State Performance Report for the 2000-2001 school year;
 - g. State of West Virginia Consolidated State Application Accountability Workbook, approved April 11, 2003;
 - h. Consolidated State Performance Report for State Formula Grant Programs under the Elementary and Secondary Education Act and Goals 2000: Educate America Act, For reporting on School Years 1999-2000 and 2000-2001, dated October 26, 1999;
 - i. Planning and Evaluation Service, State ESEA Title I Participation Information for 1999-2000, Final Summary Report, dated 2002;
 - j. Planning and Evaluation Service, State Education Indicators with a Focus on Title I 1999-2000; and
3. relied on prior OIG audit work, *Review of Management Controls Over Scoring of the National Assessment of Educational Progress 2000*, Audit Control Number: ED-OIG/A05-C0010.

We performed our fieldwork at OESE's offices in Washington, DC, from April 29, 2003, through May 1, 2003. We held an exit conference with OESE officials on June 16, 2003. Our review was performed in accordance with established OIG standards found in Inspector General Bulletin No. 91-4 (standards for performing services other than audits) that are appropriate to the scope of the review described above.

No response from your office is necessary regarding the information contained herein. If you would like to discuss the information presented in this memorandum or obtain additional information, please contact me at (312) 886-6503.

ADDITIONAL MANAGEMENT CONTROL INFORMATION

NAEP 2000 Audit Work

We performed extensive audit work to determine whether management controls over scoring of the NAEP 2000 assessment were in place and adequate to provide reasonable assurance that the assessment results could be relied on during the period October 1, 1999, through September 30, 2000. Based on the work performed, we determined that the management controls over scoring of the NAEP 2000 assessment were adequate and generally working as intended. For additional details, see the OIG final audit report entitled *Review of Management Controls Over Scoring of the National Assessment of Educational Progress 2000*, issued June 2003, under Audit Control Number: ED-OIG/A05-C0010.

Review of Prior Audit Reports

The prior audit reports that we reviewed included (1) OIG report, *Improving Title I Data Integrity for Schools Identified for Improvement*, dated March 2002; (2) GAO report, *Education Needs to Monitor States' Scoring of Assessments*, dated April 2002; (3) Texas State Auditor's Office report, *The Quality of the State's Public Education Accountability Information*, dated May 2002; (4) Joint Audit Report on *The Status of State Student Assessment Systems and the Quality of Title I School Accountability Data*, dated August 2002; and (5) GAO report, *Title I - Characteristics of Tests Will Influence Expenses; Information Sharing May Help States Realize Efficiencies*, dated May 2003. The entire reports are available on the OIG, GAO, and Texas State Auditor's Office web sites respectively, www.ed.gov/offices/oig/Areports.htm, www.gao.gov, and www.sao.state.tx.us.

OIG Final Audit report, *Improving Title I Data Integrity for Schools Identified for Improvement*, Audit Control Number ED-OIG/A03-B0025, dated March 2002, recommended that the Department take steps to improve its management controls over school improvement data to ensure the data are reliable, valid, and timely. The Department generally concurred with the findings and recommendations.

GAO report, *Education Needs to Monitor States' Scoring of Assessments*, GAO-02-393, dated April 2002, recommended that when the Department monitors state compliance with federal programs, it include checks for contractor monitoring related to Title I, Part A. Specifically, the Department should include in its new compliance reviews a check on the controls states have in place to ensure proper test scoring and the effective implementation of these controls by states. The Department agreed with GAO's recommendation.

Texas State Auditor's Office audit report, *The Quality of the State's Public Education Accountability Information*, Report No. 02-044, dated May 2002, identified specific improvements that can be made to further enhance data collection, processing, and

reporting for student assessment records and results and for the calculation and reporting of passing rates for accountability purposes. The audit report identified the need for Texas to monitor the assessment test vendor's data security and quality controls. Management agreed with the recommendations.

The Joint Audit Report, on *The Status of State Student Assessment Systems and the Quality of Title I School Accountability Data*, SAO Report No. 02-064, dated August 2002, indicated that monitoring methods states use to ensure the accuracy of test contractors' scoring and reporting do not always provide adequate assurance of complete and accurate scoring results. Of the 44 states that hire contractors for test scoring, 16 (about one-third) have no monitoring mechanism to ensure the accuracy of the contractor's test scoring and reporting. Management concurred with most of the findings.

GAO report, *Title I - Characteristics of Tests Will Influence Expenses; Information Sharing May Help States Realize Efficiencies*, GAO-03-389, dated May 2003, is a GAO study of the costs associated with implementing the test required under the *No Child Left Behind* Act of 2001. GAO recommended that the Department facilitate the sharing of information on states' experiences in attempting to reduce expenses. The Department agreed with GAO's recommendation.