



## Preliminary Comprehensive Audit Report: Summer 2008 CRCT Retest Grade 5

Presented to the State Board of Education on June 10, 2009

### Rationale for this Investigation

The Governor's Office of Student Achievement (GOSA) reviewed 2008 fifth grade summer CRCT retest scores and learned that several schools' math scores were significantly higher than their spring scores. Six schools in particular were identified for investigation: Atherton Elementary (DeKalb), Parklane Elementary (Fulton), Burroughs-Molette Elementary (Glynn), Deerwood Academy (Atlanta), Adamsville Elementary (Atlanta), and Fair Street Elementary (Gainesville). Their scale score gains ranged from 41.2 points to 75.7 points, compared with an average school gain across the state of 16.4 points. These unusually high gains warranted an inspection of the test environment.

### Purpose of the Criterion Referenced Competency Test (CRCT)

The CRCT is a standardized assessment administered to students in grades 1-8 in Georgia. It is designed to measure how well students at each grade level have acquired the knowledge and skills within the state's curriculum, the Georgia Performance Standards.

CRCT results are used to determine whether schools have made Adequate Yearly Progress (AYP) as required by the *No Child Left Behind (NCLB) Act*. In 2008, schools for the first time were allowed to use their CRCT retest scores towards their AYP determinations. This made students' performance on the retests more important than ever before from a high-stakes accountability perspective.

### Executive Summary

*Evidence of 2008 CRCT Testing Violations at 4 Elementary Schools*

#### **Erasure Analysis**

The Governor's Office of Student Achievement (GOSA) contracted with the Georgia Center for Assessment (GCA) to analyze the six target schools' erasures on the 5<sup>th</sup> grade 2008 CRCT retest answer sheets. The analysis was designed to a) reveal whether the six schools' had significantly more erasures than a representative state sample; and b) identify whether answers were changed from wrong to right more frequently than in the representative sample.

Using a professional grade scanner, GCA scanned the answer documents of the target schools and comparison schools and calculated both the frequency of changes and the total number of wrong-to-right changes per student. GCA then calculated Pearson correlation coefficients to measure the degree to which the two variables (i.e. number of changes and number of wrong-to-right changes) were related.

#### **Erasure Analysis Results**

On the 5<sup>th</sup> grade reading CRCT retest, GCA determined that Atherton Elementary's erasures were significantly different from the other target schools and from the comparison sample. In fact, each of Atherton's students who took that test was in the 98<sup>th</sup> or 99<sup>th</sup> percentile in total erasures and wrong-to-right changes. Atherton's mean number of total erasures and wrong-to-right changes were 21.67 and 13.67 respectively. These figures were significantly higher than the comparison sample's mean change values of 1.6 and 0.61.

On the 5<sup>th</sup> grade mathematics CRCT retest, GCA determined that five of the six target schools had significantly more erasures and wrong-to-right changes than the comparison group. The sixth school, Fair Street Elementary, had fewer erasures than the comparison sample, which had a mean of 2.05 total changes and 0.75 wrong-to-right changes. By contrast, the five remaining target schools' mean total change value ranged from 4.31 to 21.72, and their mean wrong-to-right change value ranged from 1.77 to 15.19.

Furthermore, each of the remaining five target schools had correlations of 0.93 to 0.97, meaning that when changes were made to the answer sheets, they were consistently correct.

Results of the 5<sup>th</sup> Grade CRCT Mathematics Retest Erasure Analysis:

School		Mean Math Scores			98 <sup>th</sup> -99 <sup>th</sup> Percentile Erasures			Correlations
	# Tested	Total Score	Total Erasures	w-t-r Changes	Students Identified	Total Students	% Identified	Erasures x w-t-r changes
Deerwood	32	35.28	6.59	3.44	11	32	34.4%	0.94
Atherton	32	46.78	21.72	15.19	32	32	100%	0.96
Parklane	26	36.88	14.54	8.92	21	26	80.8%	0.97
Burroughs-Molette	23	41.22	11.04	7.04	15	23	65.2%	0.95
Adamsville	26	38.31	4.31	1.77	5	26	19.2%	0.95
Fair Street	25	42.04	0.68	0.52	0	25	0	0.93
<b>Comparison Group</b>	<b>1986</b>	<b>27.52</b>	<b>2.05</b>	<b>0.75</b>	<b>94</b>	<b>1986</b>	<b>4.73%</b>	<b>0.80</b>

### Interviews

GOSA studied the erasure analysis results and determined that the data were compelling enough to warrant further investigation of Deerwood Academy, Atherton Elementary, Parklane Elementary, and Burroughs-Molette Elementary. Each of these four schools made AYP as a result of their 5<sup>th</sup> grade mathematics CRCT retest scores. Fair Street Elementary was the only school of the six target schools that made AYP by their spring CRCT administration scores. GOSA worked in consultation with the Georgia Professional Standards Commission (PSC) to interview employees of each of the four summer school programs to ascertain how closely policies and established testing procedures were followed during the retest administration.

### Preliminary Findings

GOSA took into consideration the results of the erasure analysis and the information gleaned from school interviews to make the following preliminary determinations:

- Fair Street Elementary in Gainesville did not appear to change students' CRCT answers and was therefore eliminated from further inspection.
- Given the small number of students identified in the 98<sup>th</sup> and 99<sup>th</sup> percentile, and upon advice from assessment experts, GOSA determined that the erasure data for Adamsville Elementary in Atlanta Public Schools was not substantial enough to warrant further inspection.
- The data collected by GOSA overwhelmingly showed that someone who had access to test materials after testing concluded changed multiple students' answers on the 5<sup>th</sup> grade mathematics CRCT retest at Deerwood Academy, Burroughs-Molette Elementary, Parklane Elementary, and Atherton Elementary.
- The data collected by GOSA also showed overwhelmingly that someone who had access to test materials after testing changed students' answers on the 5<sup>th</sup> grade reading CRCT retest at Atherton Elementary. The erasure analysis cleared the other target schools from wrongdoing by erasure on the reading retest.
- The Professional Standards Commission may formalize an ethics investigation based on OSA's findings for those who violated Standards 4 and 10 of the Code of Ethics for Educators.

### Formal Preliminary Recommendations that Require Action by the State Board of Education

1. Invalidate the summer 5<sup>th</sup> grade CRCT retest scores for Atherton Elementary, Deerwood Academy, Parklane Elementary, and Burroughs-Molette Elementary.
2. Reinstate the spring AYP determinations of "did not make AYP" for Atherton Elementary, Deerwood Academy, Parklane Elementary, and Burroughs-Molette Elementary.
3. Require that formal consequences for Atherton Elementary, Deerwood Academy, Parklane Elementary, and Burroughs-Molette Elementary follow from July 2008 accountability determinations to July 2009 determinations.
4. Require the four school systems to send a first class letter to parents or guardians of affected retested 5<sup>th</sup> grade students to inform them of the audit findings.

5. Require the receiving middle schools in the four school systems to design and follow an individual support plan for students affected by the testing violations who continue to struggle with mathematics.

**GOSA Preliminary Recommendations that do not Require Action by the State Board of Education**

1. DeKalb, Atlanta, Fulton, and Glynn School Systems should assign an administrator from the central office to monitor the spring and summer CRCT testing process at Atherton Elementary, Deerwood Academy, Parklane Elementary, and Burroughs-Molette Elementary during the 2009 and 2010 school years.
2. Glynn should better enforce its test procedure policy to collect testing materials from teachers immediately following the testing session. Teachers should not be permitted in any case to hold materials for any length of time.
3. DeKalb and Atlanta should consider revising their test material collection procedures so that the school system collects the test materials from schools rather than allowing school administrators to deliver the materials to the warehouse or central office repository.
4. Atlanta should consider providing packaging materials to schools for the collection of test materials. Such materials should be sealed immediately after test administration and prior to submission to the system's central office or warehouse. At a minimum, test materials must be placed in a container that can be sealed.
5. DeKalb and Fulton should log the time that they receive test materials from each school.
6. Atlanta should not allow certified educators to volunteer during testing and handle test materials.
7. DeKalb should not allow schools to hold test materials over a weekend. Test schedules should be arranged such that tests can always be returned on a weekday within 24 hours of the conclusion of testing.
8. Glynn must revise its policies and related enforcement procedures to ensure that a) only certified administrators are assigned as summer school administrators; b) all summer school administrators receive personal training on test administration procedures; c) all summer school employees receive training on testing procedures; d) clerical staff are not permitted to handle test materials at any time, even if only to hand materials over to a test collection courier.

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## Background

### Heightened Accountability Expectations

The *No Child Left Behind (NCLB) Act* was passed into law in 2001, requiring local schools and systems to help all students meet state reading and mathematics standards by 2014. These standards, known as the Georgia Performance Standards (GPS), guide instruction in elementary, middle, and high school classrooms throughout the state on a daily basis. The standards specify what every child must know and be able to do by the end of each grade level.

The Georgia Department of Education (GaDOE) assesses students annually to determine the extent to which they have acquired the knowledge and skills articulated in the standards. In grades 1-8, GaDOE administers the Criterion Referenced Competency Test, better known as the CRCT. The results of this assessment are used to determine whether or not enough students at each school in grades 3-8 made Adequate Yearly Progress (AYP) towards the goal of having all students at grade-level achievement by 2014.

Each year, schools must meet increasingly higher proficiency goals, known as Annual Measureable Objectives (AMOs), in order to make AYP. In 2008, elementary schools were required to have 73.3% of their reading students and 59.5% of their math students meet grade-level standards in order to make AYP. Secondary calculation methods, i.e. second look, confidence interval, and safe harbor, afford schools that do not reach the absolute achievement bar another way to make AYP. Schools that do not make AYP through any of these methods suffer consequences.

In 2008, schools for the first time were permitted to use their CRCT summer retest scores toward their AYP determinations. This made students' performance on the retests more important than ever before from a high-stakes accountability perspective. It provided a second chance to schools that had not made AYP after the spring CRCT administration to make AYP after the summer administration.

### GOSA's Decision on Schools to Investigate

Many elementary schools across Georgia retested students based on spring CRCT results. Most schools retested students who did not meet standards on the spring CRCT administration in third grade reading, fifth grade reading, and fifth grade mathematics. Fifth grade mathematics was especially challenging to schools in 2008 because it was the first time students took a CRCT based on the new math standards, which are more rigorous than the Quality Core Curriculum (QCC) previously used in Georgia.

Once local school systems verified the accuracy of their summer CRCT retest scores and the Georgia Department of Education (GaDOE) made corresponding AYP determinations, GOSA closely reviewed school gains on the summer retest over spring scores. GOSA identified six schools whose gains over their spring scores were 3.5 standard deviations or more above the state average. The six schools were Adamsville Elementary (Atlanta), Deerwood Academy (Atlanta), Atherton Elementary (DeKalb), Parklane Elementary (Fulton), Burroughs-Molette Elementary (Glynn), and Fair Street Elementary (Gainesville).

These schools' 5<sup>th</sup> grade mathematics scale score gains on the CRCT retest ranged from 41.2 points to 75.7 points, compared with an average school gain across the state of 16.4 points. In addition, the statistical likelihood that these schools' scores were earned in a valid testing environment ranged from 0.0002326 to 0.000000000000000000948. These unusually high gains warranted an inspection of test answer sheets and the test environment.

See table 1.

Table 1: CRCT retest data of 6 target schools

School	Scale Score Gain	STDEV ( $\sigma$ )	Statistical Likelihood
Fair Street Elementary-Gainesville	53.8	5.3	0.0000000578
Adamsville Elementary-Atlanta	48.4	4.6	0.000002112
Deerwood Academy-Atlanta	41.2	3.5	0.0002326
Atherton Elementary-DeKalb	75.7	8.5	0.0000000000000000948
Parklane Elementary-Fulton	44.9	4.1	0.00002066
Burroughs-Molette Elementary-Glynn	57.2	5.8	0.000000003300284
<b>State Average</b>	<b>16.4</b>	<b>-</b>	<b>-</b>

### Erasure Analysis

GOSA contracted with the Georgia Center for Assessment (GCA) at the University of Georgia to conduct an erasure analysis of the six target schools' test answer documents. The documents were specially requested by the Governor's Office of Student Achievement from CTB-McGraw Hill.

In an erasure analysis, a professional grade scanner is programmed to read varying degrees of grayness (i.e. pencil marks) to identify answer choices that students erased to select a different answer choice. Two variables are then quantified and calculated: 1) the average number of answer choices that were changed; and 2) the average number of answers that were changed from wrong to right (w-t-r).

These measurements are then compared against the same measurements from a representative sample of test answer documents from across the state. The difference between the number of changed answers by the target schools and the number of changed answers by the representative sample allows GOSA to draw initial conclusions about the validity of the test environments in question. See the full erasure report by GCA that follows.

### Communication with School Systems

The Executive Director at GOSA maintained consistent communication throughout the investigation with the superintendents of DeKalb, Fulton, Atlanta, and Glynn school systems. Each superintendent:

- Was informed in advance that 5<sup>th</sup> grade CRCT retest bubble sheets would be analyzed;
- Was briefed on the outcomes of the erasure analysis;
- Was informed in advance that staff members from the various summer school programs would be interviewed;
- Provided (or had a designated staff member provide) GOSA with a list of employees at each school for the summer of 2008;
- Was briefed on what was learned through interviews;
- Was briefed on the complete results after GOSA's investigation was complete, including a review of the methodologies used and the preliminary findings and recommendations.

Each of the above communications occurred separately from mid-March to early June, 2009. In the Executive Director's first conversation with each school system, each superintendent stated that intentional testing violations would not be tolerated in their systems.

**Erasure Analysis  
of  
5<sup>th</sup> Grade CRCT Reading and Mathematics Retest  
for the  
Governor's Office of Student Achievement  
  
Full Report**

Submitted by

Georgia Center for Assessment  
University of Georgia

April 13, 2009

## Introduction and Purpose

The Governor’s Office of Student Achievement (GOSA) requested the Georgia Center for Assessment (GCA) to examine erasure patterns on the 2008 Reading and Mathematics CRCT retests for a sample of schools. The goal of the study was to establish whether these schools showed higher levels of erasures and changes than would be expected based on a statewide sample.

## Sample

Target schools contained a total of 164 students and included:

- Atlanta Public Schools                      Adamsville Elementary  
    Deerwood Academy
- DeKalb County Schools                      Atherton Elementary
- Fulton County Schools                      Parklane Elementary
- Gainesville City                              Fair Street Elementary
- Glynn County                                  Burroughs-Molette Elementary

A comparison sample was created by the Georgia Department of Education (GADOE) to be representative of the state.

The N of this sample was 1986, although not every student took each test. Systems included in the sample included:

- Atlanta City
- Bibb County
- Chatham County
- Clarke County
- Clayton County
- Cobb County
- Dalton City
- DeKalb County
- Dougherty County
- Douglas County
- Fulton County
- Gainesville City
- Glynn County
- Gwinnett County
- Hall County
- Liberty County
- Marietta City
- Muscogee County
- Richmond County
- Rome City
- Spalding County
- Thomasville City

The comparison sample matched the target sample closely in all main demographic indicators. Main administration N (a proxy for school size), main administration achievement, socioeconomic status (% FRL), and minority, disabled, and ESOL representations were all equal or only slightly different. In addition, GADOE identified a “sister school” whose demographic characteristics mirrored each target school’s very closely. In any case, all students in the study had previously failed the Grade 5 Mathematics and/or Reading CRCT, and were thus in the lowest part of the full state distribution.



Table 1: Demographic and achievement values of target and comparison samples

Variable	Target Schools	Comparison Schools
Mean N tested on main administration	72	77
Main admin mean scale score	808	809
% Meet or exceed the standards	61%	59%
Mean total correct	34.5	34.5
% Free/Reduced Lunch	88%	87%
% Minority	98%	94%
%SWD	12%	12%
%ESOL	8%	7%

Answer documents were made available to GCA by CTB-McGraw Hill, the CRCT scoring contractor, at the request of GADOE. GADOE provided the answer key. GCA is grateful to these organizations for the cooperation they provided.

### Procedures

GCA programmed an NCS 5000i scanner to read CRCT retest documents. This optical scan device reads both sides of a sheet simultaneously and identifies marks in specified locations for each item. Each mark is assigned a grayscale value from 1 to 16. If there are multiple marks for an item, the grayscale values are compared. If there is less than a 2 step difference, the item is scored as a “multiple.” If the difference is greater than 2 steps, the darker mark is recorded as the chosen response and the other mark is considered an erasure. The presence, but not the value, of the erasures are recorded for each item.

GCA scanned the documents of the target schools and the comparison schools into separate files. Target school names and codes were captured; comparison school names were simply set to “Comparison.”

GCA computed the frequency of recorded erasures for the target schools and comparison schools. Then, using the answer keys provided by GADOE, GCA calculated the total number of wrong to right (w-t-r) changes for each student and the total raw score on the tests. To validate these data, GCA visually examined the documents from the target schools. Visual examination revealed that many of the erasures were too faint to be picked up by the scanner settings used. GCA then set the Scanner Mark Threshold to “Light” and the Scanner Discrimination Margin to 3, i.e., the difference between the read levels assigned to two marks for the same item must be equal to or greater than 3 in order for the darker mark to be accepted as valid while the lighter mark is disregarded. If the difference in darkness is less than 3 read levels, both marks are recognized as valid and a multiple is reported.

### Reading Analysis

Using the second scan datasets, GCA re-computed the frequency of erasures and wrong-to-right changes in Reading. The values were still lower than had been obtained from the visual examination, but since all students in both samples were scanned using the same settings, the groups can be validly compared. Several comparisons are of interest and displayed in Table 2.

GCA computed the total raw score for each student. Students whose total raw score was less than 10 were classified as non-attempts and removed from the analysis. Total raw score, total erasures, and w-t-r changes showed significant differences between the two groups when compared using analysis of variance with an alpha level of .05.

GCA also compared the schools individually and with the comparison. On total raw score, Atherton was significantly different from all other schools. Fair Street was significantly lower than Atherton, but significantly higher than all other schools and the comparison sample. All other schools were not significantly different from the comparison sample. On total erasures, Atherton had significantly more than all other schools and the comparison sample. Of the other target schools, only Deerwood had significantly more erasures than the comparison schools. Burroughs-Molette and Fair Street had fewer total erasures than the comparison, but not significantly. For total w-t-r changes, Atherton was significantly different from all other schools. See Table 2.

Table 2: Mean scores by school for Reading

School		Total score	Total erasures	Total w-t-r changes
	N	Mean	Mean	Mean
APS-Adamsville	6	18.17	3.50	0.67
APS-Deerwood	16	18.25	3.94	1.38
DeKalb-Atherton	9	31.89	21.67	13.67
Fulton-Parklane	10	17.40	1.80	0.90
Glynn-Burroughs-Molette	14	17.79	1.29	0.57
Gainesville City-Fair Street	8	25.00	0.50	0.38
Comparison	1009	18.97	1.60	0.61

Using the documents from the comparison schools only, GCA calculated the value of total erasures and w-t-r changes that corresponded to the 98<sup>th</sup> percentile. For total erasures, this value was 9, for w-t-r changes it was 4. Using these values, GCA identified all of the students in both groups who were 98<sup>th</sup> or 99<sup>th</sup> percentile on either measure. See Table 3. A list of identified students in the target schools has been provided in a separate secure document, to comply with FERPA guidelines.

Table 3: Percent of students by school in the 98-99<sup>th</sup> percentiles on total erasures and/or total w-t-r changes in Reading

School	Students Identified	Total Students	Percent Identified
APS-Adamsville	1	6	16.7%
APS-Deerwood	3	16	18.8%
DeKalb-Atherton	9	9	100%
Fulton-Parklane	1	10	10.0%
Glynn-Burroughs-Molette	1	14	7.1%
Gainesville City-Fair Street	0	8	0%
Comparison	29	1009	2.9%

#### Correlations

To further investigate the relationships among the variables, GCA calculated Pearson correlation coefficients between all pairs. Total erasures and w-t-r changes were highly correlated for all students, as would be expected ( $r=0.87$ ,  $p<.05$ )

However, the correlation was 0.76 for the comparison school students and 0.96 for the target students, which suggests that when changes were made, they were very consistently correct. Similarly, the correlation of w-t-r changes and total score was 0.14 for the comparison schools and 0.63 for the target schools.

Table 4: Correlations by school in Reading

School	Total Erasures X w-t-r changes
APS-Adamsville	0.90
APS-Deerwood	0.85
DeKalb-Atherton	0.94
Fulton-Parklane	0.99
Glynn-Burroughs-Molette	0.67
Gainesville City-Fair Street	0.99
Comparison	0.76

### Mathematics Analysis

Using the second scan datasets, GCA re-computed the frequency of erasures and wrong-to-right changes. The values were still lower than had been obtained from the visual examination, but since all students in both samples were scanned using the same settings, the groups can be validly compared.

GCA computed the total raw score for each student. Students whose total raw score was less than 10 were classified as non-attempts and removed from the analysis. Total raw score, total erasures, and w-t-r changes showed significant differences between the two groups when compared using analysis of variance with an alpha level of .05.

GCA also compared the schools individually and with the comparison. On total raw score, Atherton was significantly different from all other schools. All target schools were significantly different from the comparison sample. On total erasures, all target schools were significantly different from each other and the comparison schools, with one exception: Fair Street was not significantly different from, and in fact lower than, the comparison group. Total w-t-r changes followed the same pattern as total erasures. See Table 5.

Table 5: Mean scores by school for Mathematics

School		Total score	Total erasures	Total w-t-r changes
	N	Mean	Mean	Mean
APS-Adamsville	26	38.31	4.31	1.77
APS-Deerwood	32	35.28	6.59	3.44
DeKalb-Atherton	32	46.78	21.72	15.19
Fulton-Parklane	26	36.88	14.54	8.92
Glynn-Burroughs-Molette	23	41.22	11.04	7.04
Gainesville City-Fair Street	25	42.04	0.68	0.52
Comparison	1986	27.52	2.05	0.75

Using the documents from the comparison schools only, GCA calculated the value of total erasures and w-t-r changes that corresponded to the 98<sup>th</sup> percentile. For total erasures, this value was 9, for w-t-r changes it was 4. Using these values, GCA identified all of the students in both groups who were 98<sup>th</sup> or 99<sup>th</sup> percentile on either measure. All of the target schools except Fair Street had proportionally more students identified. See Table 6. A list of identified students in the target schools has been provided in a separate secure document, to comply with FERPA guidelines.

Table 6: Percent of students by school in the 98-99th percentiles on total erasures and/or w-t-r changes in Mathematics

School	Students Identified	Total Students	Percent Identified
APS-Adamsville	5	26	19.2%
APS-Deerwood	11	32	34.4%
DeKalb-Atherton	32	32	100%
Fulton-Parklane	21	26	80.8%
Glynn-Burroughs-Molette	15	23	65.2%
Gainesville City-Fair Street	0	25	0%
Comparison	94	1986	4.7%

### Correlations

To further investigate the relationships among the variables, GCA calculated Pearson correlation coefficients between all pairs. Total erasures and w-t-r changes were highly correlated for both groups, as would be expected ( $r=0.92$ ,  $p<.05$ ) However, the correlation was 0.80 for the comparison school students and 0.97 for the target students, which suggests that when changes were made, they were very consistently correct. Similarly, the correlation of w-t-r changes and total score was 0.23 for the comparison schools and 0.35 for the target schools.

Table 7: Correlations by school in Mathematics

School	Total Erasures X w-t-r changes
APS-Adamsville	0.95
APS-Deerwood	0.94
DeKalb-Atherton	0.96
Fulton-Parklane	0.97
Glynn-Burroughs-Molette	0.95
Gainesville City-Fair Street	0.93
Comparison	0.80

### Summary

Student CRCT retest answer documents from six identified target schools and a demographically similar comparison sample were scanned to identify the total raw score, total number of erasures to change a response, and the total number of times a change was from wrong to right. Significant differences between the target and comparison samples were seen in all three measures. Most, although not all, of the target schools were also seen to be different from the comparison sample schools in Mathematics. Some target schools were also seen to be different in Reading.

It is difficult to explain differences in total number of erasures and total wrong-to-right changes without examining the conditions of the test administration. GCA recommends that this examination be performed as resources permit.

## Interviews

The data gathered from the erasure analysis strongly suggested that the 2008 CRCT retest environment at four of the six target schools had been compromised. However, GOSA felt compelled to learn more about the summer school programs at Atherton Elementary, Burroughs-Molette Elementary, Deerwood Academy, and Parklane Elementary to better understand those test environments in an effort to support, explain, or dispute the results of the erasure analysis.

The erasure analysis results showed clearly that student answers at Fair Street Elementary had not been changed, and the data for Adamsville Elementary was not substantial enough to warrant further inspection. Therefore, both schools were dismissed from the investigation.

The Georgia Professional Standards Commission (PSC) is the agency responsible for enforcing the Code of Ethics for Educators. It has the statutory authority to enforce those guidelines by investigating complaints related to educators' behavior. The PSC is empowered to impose disciplinary sanctions when appropriate, including the revocation of educators' teaching certificates. The PSC accompanied GOSA as a consultant to all of the audit interviews.

The interview section of this report focuses only on what was learned that supports, explains, or disputes the results of the erasure analysis. Information pertaining to specific individuals' actions is not included here; instead, the PSC may use that information to formalize an ethics investigation to identify those responsible for testing violations.

### Atherton Elementary Interviews

GOSA interviewed paraprofessionals, teachers, and administrators from Atherton Elementary who were involved with the 5<sup>th</sup> grade summer school program in 2008. GOSA learned that Atherton was one of 158 summer school sites in DeKalb County. It offered summer instruction only to Atherton students who had failed the spring CRCT with the exception of a few students from neighboring schools who were granted special permission to enroll in Atherton's program. Those students had also failed the spring administration of the CRCT.

GOSA asked many detailed questions related to test preparation, test administration, and test collection at Atherton. Each paraprofessional, teacher, and administrator that GOSA interviewed was well trained and clear on DeKalb's test procedures and protocols. Nine students were retested in 5<sup>th</sup> grade reading, and 32 were retested in 5<sup>th</sup> grade math. Every student passed the reading and mathematics retests. In fact, of the 32 students retested in mathematics, 26 scored at the exceeds level.

In both reading and mathematics, Atherton teachers were required to use a scripted program called "Ladders to Success" to prepare students for the CRCT retest. "Ladders to Success" was used throughout the county at each summer school program. Mathematics teachers in particular at Atherton found no reason to customize lesson plans, focus instruction on questions students had missed on the spring CRCT administration, or otherwise veer from the script; in fact, they were discouraged from doing so. They were expected to follow the "Ladders to Success" lesson plans very closely.

Atherton's summer school students were provided appropriate instructional time. They were taught and tested in small groups in three different classrooms by three different mathematics teachers. Students who needed to take only one subject retest (i.e. reading and/or mathematics) received a half day of instruction each day in that subject for four weeks, while students who needed to take two subject retests received a whole day of instruction every day during the four weeks.

The small groups allowed Atherton's 5<sup>th</sup> grade teachers ample opportunity to observe students closely during the CRCT retest. Each teacher conveyed that students worked through the retest smoothly, did not ask questions, did not appear to have difficulty bubbling answers, and did not appear to change many answers.

GOSA also inquired as to why the 5<sup>th</sup> grade students at Atherton were considerably more successful in mathematics than the students in other grade levels. In 2007-08, the failure rates by grade level on the CRCT in mathematics at Atherton were as follows:

- 32% of first graders did not meet standards
- 33% of second graders did not meet standards
- 69% of third graders did not meet standards
- 57% of fourth graders did not meet standards
- 0% of fifth graders did not meet standards; (100% of fifth graders passed the mathematics CRCT)

GOSA recognizes that 5<sup>th</sup> grade students' mathematics retest scores were included in state reporting while other grades were not, but the large gap in scores between grade levels cannot be explained plausibly by that circumstance alone.

### **Burroughs-Molette Elementary Interviews**

GOSA interviewed teachers and administrators from Burroughs-Molette Elementary who were involved with the 5<sup>th</sup> grade summer school program in 2008. GOSA learned that the summer school program at Burroughs-Molette consisted only of students from that school who had failed the spring CRCT administration. They attended the program each day from approximately 8:00 a.m. to 12:30 pm. whether they needed instruction in one or two subject areas (i.e. reading and/or mathematics). Most students were taught and tested in mathematics by one teacher.

The summer school coordinator had neither administrative training nor an administrative license, yet she was charged with the administration of the program, including classroom observations, discipline, attendance record keeping, CRCT retest administration, and payroll. She also served as a test proctor during summer school.

All teachers in the Burroughs-Molette summer school program were employed at Burroughs-Molette during the regular school year. They received training on test administration procedures during the year, but they did not receive additional training during summer school. Two staff members seemed to lack the understanding of testing protocols and procedures necessary to support a secure testing environment.

The Georgia Department of Education (GaDOE) has [clear guidelines](#) in place that require schools to place a CRCT proctor in classrooms where the number of students to be tested exceeds thirty. At Burroughs-Molette, the summer school coordinator stepped away from administrative responsibilities to proctor a 5<sup>th</sup> grade math CRCT classroom that had only 18 students.

Although test security processes seemed to be clearly in place during the school year, such test security appeared to be lacking during the summer CRCT retest administration.

The small groups allowed Burroughs-Molette's 5<sup>th</sup> grade teachers and proctor ample opportunity to observe students closely during the CRCT retest. Each conveyed that students worked through the retest smoothly, did not ask questions, did not appear to have difficulty bubbling answers, and did not appear to change many answers.

GOSA also inquired as to why the 5<sup>th</sup> grade students at Burroughs-Molette were considerably more successful in mathematics than the students in other grade levels. In 2007-08, the failure rates by grade level on the CRCT in mathematics were as follows:

- 41% of first graders did not meet standards
- 38% of second graders did not meet standards
- 57% of third graders did not meet standards
- 62% of fourth graders did not meet standards
- 6% of fifth graders did not meet standards;

GOSA recognizes that 5<sup>th</sup> grade students' mathematics retest scores were included in state reporting while other grades were not, but the large gap in scores between grade levels cannot be explained plausibly by that circumstance alone.

### **Deerwood Academy**

GOSA interviewed teachers, administrators, and retired personnel from Deerwood Academy and Fickett Elementary who were involved with the 5<sup>th</sup> grade summer school program at Deerwood Academy in 2008. GOSA learned that the summer school program at Deerwood consisted of students from the five elementary schools of School Reform Team number one (SRT1) in Atlanta Public Schools (APS): Deerwood Academy, Fickett Elementary, Continental Colony Elementary, Perkerson Elementary, and Kimberly Elementary. All students had previously failed the spring administration of the 5<sup>th</sup> grade CRCT.

Deerwood students were taught mathematics by multiple teachers primarily from schools other than Deerwood. Deerwood students were enrolled in classrooms with students from the other SRT1 schools. They attended summer school each day from approximately 8:00 a.m. to 12:30 pm. whether they needed instruction in one or two subject areas (i.e. reading or mathematics).

The Deerwood Academy summer school program was unique in that instruction was delivered primarily by Teach for America volunteers, most of whom were recent college graduates who had no formal experience as classroom teachers and were not familiar with state curriculum standards. The volunteers were closely supervised by the fulltime SRT1 teachers hired for summer school and did not administer the CRCT retest.

GOSA asked many detailed questions related to test preparation, test administration, and test collection at Deerwood. Each teacher and administrator that GOSA interviewed was well trained and clear on the test procedures and protocols expected of them by APS.

Students were taught and tested in small groups, which allowed the 5<sup>th</sup> grade teachers ample opportunity to observe students closely during the CRCT retest. Each teacher conveyed that students worked through the retest smoothly, did not ask questions, did not appear to have difficulty bubbling answers, and did not appear to change many answers.

In the course of the interviews, GOSA learned that the summer school coordinator had been assisted by a volunteer retired educator from APS. In addition, clerical staff was responsible for access to the room where CRCT retests were stored.

GOSA also inquired as to why the 5<sup>th</sup> grade students at Deerwood were considerably more successful in mathematics than 3<sup>rd</sup> and 4<sup>th</sup> grade students. In 2007-08, the failure rates by grade level on the CRCT in mathematics were as follows:

- 14% of first graders did not meet standards
- 18% of second graders did not meet standards
- 46% of third graders did not meet standards
- 47% of fourth graders did not meet standards
- 5% of fifth graders did not meet standards;

GOSA recognizes that 5<sup>th</sup> grade students' mathematics retest scores were included in state reporting while other grades were not, but the large gap in scores between those grade levels cannot be explained plausibly by that circumstance alone.

### **Parklane Elementary**

GOSA interviewed paraprofessionals, teachers, and administrators from Parklane Elementary as well as administrators from three other schools that were involved with the 5<sup>th</sup> grade summer school program at Parklane Elementary in 2008: Hamilton Holmes Elementary, Oak Knoll Elementary, and Conley Hills Elementary. All students enrolled in summer school had previously failed the spring administration of the 5<sup>th</sup> grade CRCT.

Students from all four schools were enrolled in summer school classes together. Parklane students were taught and tested predominantly by Parklane teachers, but students from the other schools were also in their classrooms.

GOSA asked many detailed questions related to test preparation, test administration, and test collection at Parklane. Each teacher and administrator that GOSA interviewed was well trained and clear on the test procedures and protocols expected of them by Fulton County Schools.

Students were taught and tested in small groups, which allowed the 5<sup>th</sup> grade teachers ample opportunity to observe students closely during the CRCT retest. Each teacher conveyed that students worked through the retest smoothly, did not ask questions, did not appear to have difficulty bubbling answers, and did not appear to change many answers. One teacher recalled one student that seemed to erase many answer choices throughout the test.

GOSA also inquired as to why the 5<sup>th</sup> grade students at Parklane were considerably more successful in mathematics than students in other grades. In 2007-08, the failure rates by grade level on the CRCT in mathematics were as follows:

- 23% of first graders did not meet standards
- 44% of second graders did not meet standards
- 41% of third graders did not meet standards
- 72% of fourth graders did not meet standards
- 5% of fifth graders did not meet standards;

GOSA recognizes that 5<sup>th</sup> grade students' mathematics retest scores were included in state reporting while other grades were not, but the large gap in scores between grade levels cannot be explained plausibly by that circumstance alone.



## Preliminary Findings

GOSA took into consideration the results of the erasure analysis and the information gleaned from school interviews to make the preliminary findings that follow.

### **Atherton Elementary School**

The summer school program at Atherton Elementary was one of 158 summer school sites throughout DeKalb County in the summer of 2008. Each of the 158 sites used a scripted mathematics program called “Ladders to Success” to prepare students for the CRCT retest. Teachers at Atherton taught the program exactly as they were asked to do, and exactly as educators at the other 157 summer school sites were also asked to do.

If “Ladders to Success” were in and of itself a truly remarkable program, GOSA would expect to see similar gains across all summer school programs in DeKalb. That did not happen. In fact, Atherton earned gains at approximately 8.5 standard deviations above the state average, far more than any other elementary school in DeKalb County.

Given the results of GCA’s erasure analysis and the unusually high gains made over the spring CRCT administration, GOSA finds overwhelming evidence to show that someone who had access to test materials after testing concluded changed multiple students’ answers on the 5<sup>th</sup> grade CRCT at Atherton Elementary.

### **Burroughs-Molette Elementary**

The summer school program at Burroughs-Molette Elementary served only students of Burroughs-Molette. GOSA discovered several test protocol violations, all of which contributed to a less than secure test environment.

The summer school administrator lacked an administrative license and administrative training. Staff was not trained on summer school test procedures (although they’d all been trained previously during the school year), and two staff members explained test conduct that violated test protocols. The summer school administrator relinquished administrative duties to proctor a 5<sup>th</sup> grade mathematics test classroom, although a proctor was not necessary as only 18 students were being tested. Test materials were not collected promptly from classrooms following testing. Finally, test materials were left with clerical staff who waited for the central office courier to pick up the items.

Given the results of GCA’s erasure analysis, the unusually high gains made over the spring CRCT administration, and the lack of protocols that contributed to a lax testing environment, GOSA finds overwhelming evidence to show that someone who had access to test materials after testing concluded changed multiple students’ answers on the 5<sup>th</sup> grade CRCT at Burroughs-Molette Elementary.

### **Deerwood Academy**

Deerwood Academy was the host site of summer school for students of five different elementary schools. Deerwood students were placed in classrooms with students from the other schools, and most of the Deerwood students were taught by teachers from Fickett Elementary. However, most instructional time was led by Teach for America volunteers.

If Deerwood’s 3.5 standard deviation scale score gain had been earned in a valid testing environment, GOSA would expect to see similar gains by students from the other four schools. It did not. Instead, GOSA found scale score gains at or near the state average for each of the other four schools.

In addition, GOSA found several areas of test protocol that were carried out inappropriately. A retired educator volunteered to help coordinate CRCT retesting, and volunteers should not be permitted to handle test materials whatsoever. It is also possible, although unclear, that another retired educator volunteered to test students in an alternative test environment. In addition, during the testing week of summer school, test materials were kept in a room to which only clerical staff had access.

The secretary was asked by the summer school administrator to open the door each morning, but no one took direct responsibility each day to make sure that the door was closed and locked. Finally, test materials were taken to the central office repository in an open, unsealed container.

Given the results of GCA's erasure analysis, the unusually high gains made over the spring CRCT administration, and the fact that the scores of the other four summer school programs at Deerwood did not spike, GOSA finds overwhelming evidence to show that someone who had access to test materials after testing concluded changed multiple students' answers on the 5<sup>th</sup> grade CRCT at Deerwood Academy.

### **Parklane Elementary**

Like Deerwood Academy, Parklane Elementary hosted the summer school program for four elementary schools. Parklane students were placed in classrooms with students from the other schools. Many of the Parklane students were taught by Parklane teachers, but the Parklane teachers also had students from other schools in their classroom.

If Parklane's 4.1 standard deviation scale score gain had been earned in a valid testing environment, GOSA would expect to see similar gains by students from the other four schools. It did not. Instead, GOSA found scale score gains at or near the state average for each of the other four schools.

Given the results of GCA's erasure analysis, the unusually high gains made over the spring CRCT administration, and the fact that the scores of the other three summer school programs at Parklane did not spike, GOSA finds overwhelming evidence to show that someone who had access to test materials after testing concluded changed multiple students' answers on the 5<sup>th</sup> grade CRCT at Parklane Elementary.

### **Responsibility**

The Professional Standards Commission may formalize an ethics investigation based on OSA's data against those who may have violated Standards 4 and 10 of the Code of Ethics for Educators.

## **Preliminary Recommendations**

State Board of Education (SBOE) rule 160-7-1-.04 authorizes GOSA to make the following preliminary recommendations to the SBOE to address and, to the extent possible, rectify these testing violations. Each recommendation is focused on taking corrective action for students affected directly or indirectly by the testing violations.

### **Formal Preliminary Recommendations that Require Action by the State Board of Education**

1. Invalidate the summer 5<sup>th</sup> grade CRCT retest scores for Atherton Elementary, Burroughs-Molette Elementary, Deerwood Academy, and Parklane Elementary.
2. Reinstate the spring AYP determinations of “did not make AYP” for Atherton Elementary, Burroughs-Molette Elementary, Deerwood Academy, and Parklane Elementary.
3. Require that formal consequences for each of the four schools follow from July 2008 accountability determinations to July 2009 determinations.
4. Require each of the four school systems to send a first class letter to parents of affected retested 5<sup>th</sup> grade students to inform them of the audit findings.
5. Require the receiving middle schools in the system to design and follow an individual support plan for students affected by the CRCT retest infractions who continue to struggle with mathematics.

In addition, GOSA makes the following preliminary recommendations that do not require action by the SBOE but may offer the four school systems ways in which to protect against future testing infractions.

### **Preliminary Recommendations for Atherton Elementary that do not Require Action by the State Board of Education**

1. The DeKalb County School System should assign an administrator from its central office to monitor the spring and summer CRCT testing process at Atherton Elementary during the 2009 and 2010 school years.
2. DeKalb School System should consider revising its test material collection procedures so that the school system collects the test materials from schools rather than allowing school administrators to deliver the materials to the warehouse or central office repository.
3. DeKalb School System should log the date and time it receives test materials from each school.
4. DeKalb School System should not allow schools to hold test materials over a weekend. Test schedules should be arranged such that tests can always be collected on a weekday within 24 hours of the conclusion of testing.

### **Preliminary Recommendations for Burroughs-Molette Elementary that do not Require Action by the State Board of Education**

1. The Glynn County Schools should assign an administrator from its central office to monitor the spring and summer CRCT testing process at Burroughs-Molette Elementary during the 2009 and 2010 school years.
2. Glynn should better enforce its test procedure policy to collect testing materials from teachers immediately following the testing session. Teachers should not be permitted in any case to hold materials for any length of time.
3. Glynn must revise its policies and related enforcement procedures to ensure that a) only certified administrators are assigned as summer school administrators; b) all summer school administrators receive personal training on test administration procedures; c) all summer school employees receive training on testing procedures; d) clerical staff are not permitted to handle test materials at any time, even if only to hand materials over to a test collection courier.

### **Preliminary Recommendations for Deerwood Academy that do not Require Action by the State Board of Education**

1. The Atlanta Public Schools should assign an administrator from its central office to monitor the spring and summer CRCT testing process at Deerwood Academy during the 2009 and 2010 school years.
2. Deerwood Academy should adjust its test security policy so that it receives, distributes, and stores standardized tests in a secure room to which only the administrator in charge of test security has a key.

3. Atlanta Public Schools should consider revising its test material collection procedures so that the school system collects the test materials from schools rather than allowing school administrators to deliver the materials to the warehouse or central office repository.
4. Atlanta Public Schools should consider providing packaging materials to schools for the collection of test materials. Such materials should be sealed immediately after test administration and prior to submission to the system's central office or warehouse. At a minimum, test materials must be placed in a container that can be sealed.
5. Atlanta Public Schools should not allow certified educators to volunteer during testing and handle test materials.

**Preliminary Recommendations for Parklane Elementary that do not Require Action by the State Board of Education**

1. Fulton school system should assign an administrator from its central office to monitor the spring and summer CRCT testing process at Parklane Elementary during the 2009 and 2010 school years.
2. Fulton should log the time that test materials are collected from each school.

## Appendix

### Atherton Elementary: 98<sup>th</sup>-99<sup>th</sup> Percentile Students for Erasures:

Student*	Total Changes	W-t-R Changes
Student 1	31	22
Student 2	27	18
Student 3	19	15
Student 4	12	6
Student 5	23	9
Student 6	30	22
Student 7	19	10
Student 8	12	9
Student 9	18	13
Student 10	10	5
Student 11	25	20
Student 12	28	22
Student 13	9	8
Student 14	17	11
Student 15	46	33
Student 16	13	7
Student 17	41	32
Student 18	20	16
Student 19	25	16
Student 20	22	17
Student 21	10	7
Student 22	24	19
Student 23	22	15
Student 24	8	6
Student 25	22	13
Student 26	10	8
Student 27	14	8
Student 28	19	13
Student 29	34	27
Student 30	24	19
Student 31	36	23
Student 32	25	17

\*All personally identifiable information has been redacted from this data.

**Burroughs-Molette Elementary: 98<sup>th</sup>-99<sup>th</sup> Percentile Students for Erasures:**

<b>Student*</b>	<b>Total Changes</b>	<b>W-t-R Changes</b>
Student 1	12	10
Student 2	10	8
Student 3	6	5
Student 4	29	22
Student 5	21	16
Student 6	12	6
Student 7	6	6
Student 8	16	10
Student 9	22	11
Student 10	10	8
Student 11	18	12
Student 12	14	5
Student 13	18	10
Student 14	15	10
Student 15	19	13

\*All personally identifiable information has been redacted from this data.

**Deerwood Academy: 98<sup>th</sup>-99<sup>th</sup> Percentile Students for Erasures:**

<b>Student*</b>	<b>Total Changes</b>	<b>W-t-R Changes</b>
Student 1	14	7
Student 2	16	7
Student 3	14	7
Student 4	16	7
Student 5	11	7
Student 6	14	10
Student 7	19	12
Student 8	15	7
Student 9	6	5
Student 10	9	6
Student 11	24	12

\*All personally identifiable information has been redacted from this data.

**Parklane Elementary: 98<sup>th</sup>-99<sup>th</sup> Percentile Students for Erasures:**

<b>Student*</b>	<b>Total Changes</b>	<b>W-t-R Changes</b>
Student 1	23	12
Student 2	24	14
Student 3	24	16
Student 4	20	13
Student 5	9	5
Student 6	11	8
Student 7	9	5
Student 8	17	9
Student 9	12	6
Student 10	26	17
Student 11	12	6
Student 12	19	14
Student 13	27	19
Student 14	8	4
Student 15	32	19
Student 16	15	10
Student 17	9	4
Student 18	11	7
Student 19	22	15
Student 20	17	10
Student 21	13	11

\*All personally identifiable information has been redacted from this data.