



Testing Brief

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Testing Unit

Performance of Students on the Alternate Maryland School Assessment (Alt-MSA) and Schools' AYP Status 2006–2007

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Background

In December 2006, the Office of Shared Accountability (OSA) Testing Unit published a brief entitled *Performance of Students Receiving Special Education Services on the Alternate Maryland School Assessment (Alt-MSA) 2005–2006* (Martinez, 2006) which described Alt-MSA scores and administration for the 2005–2006 school year. The current brief is a follow-up to information presented in that report. Its purpose is to describe the 2006–2007 status of and changes since the previous year regarding—

- the performance of students who took the Alt-MSA,
- the impact of students' Alt-MSA scores on the Montgomery County Public Schools' (MCPS) Adequate Yearly Progress (AYP) results, and
- the degree to which errors in administration of the Alt-MSA may impact student scores and AYP outcomes.

Finally, this brief reviews actions taken to minimize errors in the 2006–2007 Alt-MSA test administration and offers new recommendations based on current data.

For additional background information regarding the Alt-MSA, AYP, and relevant legislation, *No Child Left Behind Act of 2001* (NCLB) and *Individuals with Disabilities Education Act* (IDEA), please refer to the December 2006 brief.

Methodology

Participants

Analyses include only those students who participated in the 2006–2007 Alt-MSA assessment and met requirements for inclusion in MCPS AYP performance statistics ($N=666$). Of these students, 60 were identified as being enrolled in “special

placement schools” outside of MCPS,¹ and although Alt-MSA scores for these students do not count toward AYP for an individual school, they are included in AYP for the district overall. Students who enrolled in an MCPS school after September 30, 2006, ($N=20$), are excluded from the analyses, unless otherwise noted.

Measures

The Alt-MSAs assess the attainment of individually selected reading and mathematics mastery objectives for students with significant cognitive disabilities. Early in the 2006–2007 school year, schools submitted 10 reading and 10 mathematics mastery objectives for each student to MSDE. Portfolios constructed throughout the school year included artifacts to document individual student growth in the assessed objectives. Portfolios were submitted to MSDE for independent scoring at the following three proficiency levels: basic (mastery of zero to five objectives), proficient (mastery of six to eight objectives), and advanced (mastery of nine or ten objectives).

Analyses

Descriptive statistics were used to provide a profile of 2006–2007 data and inferential statistics were used to compare groups. Representatives from the Department of Special Education Services and OSA provided information on actions taken during the 2006–2007 school year to reduce errors in the administration of the Alt-MSA.

¹ “Special placement schools” are special education and general education schools approved by the Maryland State Department of Education (MSDE) to provide educational services to Maryland public school students. They also include state-operated programs such as Maryland School for the Deaf, Maryland School for the Blind, and Department of Juvenile Services schools. These schools are commonly referred to by their MSDE designation as “local education agency (LEA) 24” schools.

Results

Student Performance on Alt-MSA

Seventy percent of students participating in the 2006–2007 Alt-MSA scored proficient or higher in reading and 69.2% scored proficient or higher in mathematics. This represents a substantial improvement from the 2005–2006 school year when only 50.9% of students participating in the Alt-MSA scored proficient or higher in reading and 53.6% scored proficient or higher in mathematics (Figure 1).

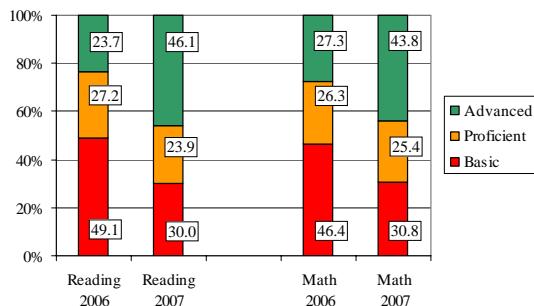


Figure 1. Alt-MSA proficiency rates for 2005–2006 and 2006–2007

AYP Results Impacted by Alt-MSA Performance

Students who took the Alt-MSA are included in AYP statistics for the special education subgroup. In 2006–2007, several schools failed to meet special education proficiency benchmarks in reading ($N=13$) or mathematics ($N=12$).² Of these schools, five could have met the lowest end of the confidence interval of special education for reading and four for mathematics if more of their students' Alt-MSA portfolios had scored proficient.

Furthermore, four elementary and four middle schools did not make AYP due solely to the performance of the special education subgroup in one or both subject areas. One of these schools could have made AYP had more of their students' Alt-MSA portfolios scored proficient.

When considering these findings, it is important not to unduly emphasize Alt-MSA results as a way to ensure schools meet AYP because these scores are only part of the special education subgroup statistics. However, performance on the Alt-MSA assessments clearly does have implications for AYP.

² In several instances, schools met 2006–2007 special education benchmarks via the Safe Harbor provision ($N=24$ for reading, and $N=18$ for mathematics). That is to say, among other requirements, these schools had at least a ten percent reduction in the number of students scoring below proficient compared with the year before (see MSDE Web site http://mdk12.org/data/explorer/index_d.html).

In 2006–2007, MCPS had a higher proportion of students scoring basic on the Alt-MSAs compared with Prince George's County Public Schools (PGCPS) and Baltimore County Public Schools (BCPS), with MCPS performing more similarly to Howard County Public Schools (HCPS) (Figures 2 and 3).³ All four districts improved performance on the Alt-MSAs compared with the year before (see Martinez, 2006). In 2005–2006, MCPS and PGCPS had comparable proficiency rates, but in 2006–2007, PGCPS had a higher proportion of students reaching advanced and proficient status than did MCPS. The degree to which PGCPS's improvement is due to a reduction in nonscorable objectives (described in the section to follow) cannot be determined from these data.

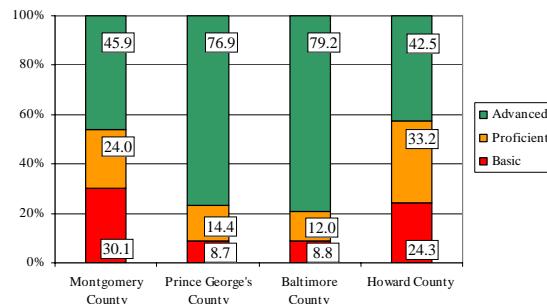


Figure 2. Comparison with selected school districts: Alt-MSA Reading proficiency rates for 2006–2007

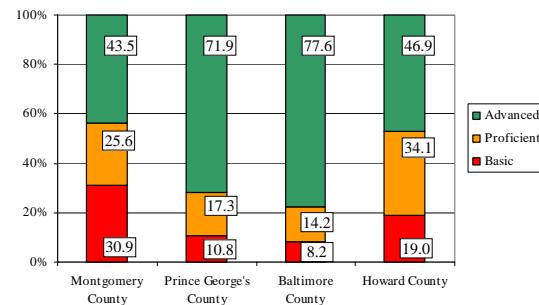


Figure 3. Comparison with selected school districts: Alt-MSA Mathematics proficiency rates for 2006–2007

Errors in Alt-MSA Administration: Nonscorable Objectives

When Alt-MSA portfolios are submitted to MSDE for scoring, objectives are reviewed for administrative errors that render them nonscorable. A nonscorable objective is assigned one of six codes,

³ Countywide Alt-MSA statistics were acquired from MSDE's Web site and include the 20 students who were enrolled after September 30, 2006. The number of Alt-MSA test-takers in Figures 2 and 3 is as follows: MCPS $N=686$, PGCPS $N=619$, BCPS $N=684$, and HCPS $N=226$. Thus, the proportions of MCPS students at each proficiency level in these figures differ slightly from Figure 1.

depending on the nature of the error. A complete list and description of all the nonscorable condition codes is in the appendix.

According to MSDE,⁴ judges first scrutinize an objective for Code 1 errors, and if found, the objective is assigned that code and no further review is conducted. If no Code 1 errors are found, the objective then is scrutinized for Code 2 errors. If a Code 2 error is found, the objective is assigned that code and no further review is conducted. If no Code 2 errors are found, the objective then is scrutinized for Code 3, and so on. No more than one nonscorable code is assigned to an objective.

Table 1 presents the number and percentage of nonscorable condition codes for 2005–2006 and 2006–2007. The proportion of nonscorable Code 1 conditions decreased dramatically from 2005–2006 to 2006–2007 in reading (0.2% in 2006–2007 down from 15.1% in 2005–2006) and mathematics (almost none in 2006–2007 down from 10.0% in 2005–2006). Substantial downward trends held for all other nonscorable codes with one exception: The proportions of Code 2 conditions increased more than threefold in 2006–2007 (14.1% in 2006–2007 vs. 4.0% in 2005–2006 for reading; 15.0% in 2006–2007 vs. 3.0% in 2005–2006 for mathematics) and were the most common administrative problems that year. It is possible that when Code 1 errors were nearly eliminated in 2006–2007, more portfolios advanced to the next level of scrutiny and were flagged as Code 2. If MCPS works to eliminate Code 1 and Code 2 errors in 2008 without attending to other possible administration errors, then an increase in Code 3 errors might be observed.

The second most common nonscorable condition was Code 5—having fewer than three consecutive observations on different days prior to the demonstration of mastery (6.1% for reading and 4.6% for mathematics). However, the proportion of Code 5 conditions was much lower compared with the previous year.

To score proficient on the Alt-MSAs, a student must master 6 out of 10 objectives. However, 132 students (19.8% of test-takers) had five or more nonscorable objectives in reading, and 123 students (18.5% of test-takers) had five or more nonscorable objectives in mathematics. As a result, Alt-MSA administrative errors, alone, precluded these students from reaching proficiency. Nonetheless, the proportions of total nonscorable reading and mathematics objectives in 2006–2007 were nearly half of those in 2005–2006 (23.7% in 2006–2007 vs. 45.6% in 2005–2006 for

reading; 22.8% in 2006–2007 vs. 41.9% in 2005–2006 for mathematics).

Table 1
Number and Percentage of Nonscorable Alt-MSA Objectives by Condition Codes

Condition Code and Description	Reading		Mathematics	
	2006 <i>n</i> (%)	2007 <i>n</i> (%)	2006 <i>n</i> (%)	2007 <i>n</i> (%)
1 Objective not aligned	135 (15.1)	10 (0.2)	767 (10.0)	1 (<0.1)
2 Missing artifact	301 (4.0)	936 (14.1)	223 (3.0)	998 (15.0)
3 Incomplete artifact	262 (3.5)	10 (0.2)	283 (3.8)	12 (0.2)
4 Artifact not aligned	727 (9.6)	200 (3.0)	837 (11.1)	186 (2.8)
5 No minimum of three observations	902 (12.0)	405 (6.1)	948 (12.6)	306 (4.6)
6 No accuracy scores	108 (1.4)	15 (0.2)	105 (1.4)	16 (0.2)
Total nonscorable codes	3435 (45.6)	1576 (23.7)	3163 (41.9)	1519 (22.8)

MCPS vs. Special Placement Schools

MCPS students enrolled in district schools attained statistically significantly higher proficiency rates on the Alt-MSA than did MCPS students enrolled in special placement schools.⁵

- Proficiency rates for reading were 71.1% in MCPS schools vs. 58.3% in non-MCPS schools.
- Proficiency rates for mathematics were 71.3% in MCPS schools vs. 48.3% in non-MCPS schools.

MCPS students also had statistically significantly fewer total nonscorable Alt-MSA objectives.⁶ The average number of nonscorable objectives per student was as follows:

- 2.3 in MCPS schools vs. 3.3 in special placement schools for reading.
- 2.1 in MCPS schools vs. 3.9 in non-MCPS schools for mathematics.

In addition, MCPS students were much less likely to have five or more nonscorable objectives.⁷ The

⁴ Alt-MSA scoring procedures were described by MSDE representatives to E. Grace Chesney, supervisor, Testing Unit, OSA.

⁵ Chi-square analyses were conducted ($p < .05$).

⁶ T-tests of independent means were conducted ($p < .01$).

⁷ Chi-square analyses were conducted ($p < .05$).

proportion of students with five or more nonscorable objectives was as follows:

- 18.5% in MCPS schools vs. 33.3% in non-MCPS schools for reading.
- 16.3% in MCPS schools vs. 40% in non-MCPS schools for mathematics.

Actions Taken to Eliminate Alt-MSA Nonscorable Codes

MCPS pursued the following actions in order to minimize nonscorable codes and maximize student scores for the 2006–2007 school year:

- In September 2006, OSA provided detailed data to special education staff in the Department of Curriculum and Instructional Programs that documented 2005–2006 Alt-MSA scores and miscodes by school for each student portfolio. This helped to identify sites that might benefit from targeted assistance.
- Special education staff held voluntary trainings throughout the school year for MCPS teachers administering the Alt-MSA. Embedded in these trainings was a review of 2005–2006 miscode data and procedures for appropriate portfolio development.
- Special education staff strongly recommended to teachers administering the Alt-MSA that the selection of mastery objectives be restricted to those preapproved and offered in MSDE’s online objective bank. This was intended to address the problem of Code 1 errors (objective not aligned).
- Special education staff provided on-site technical assistance and staff development January–March 2007 to approximately 35 schools that requested it.

The combination of these efforts likely accounts for the dramatic reduction in Alt-MSA miscodes between the 2005–2006 and 2006–2007 testing years.

Recommendations

The following recommendations are proposed in light of the impact of the Alt-MSA on school accountability and, in particular, AYP. These recommendations also may be useful for informing instructional changes.

- Provide mandatory rather than voluntary training on Alt-MSA administration and portfolio development for all schools administering the Alt-MSA. Training should begin as soon as possible before or at the start of each school year since portfolio development begins in October. Portfolio reviews with the Department of Special Education Services should continue throughout the school year to provide quality control and minimize administrative errors.

- Target specific schools with low Alt-MSA proficiency rates or high numbers of nonscorable objectives for mandatory on-site technical assistance. However, all schools may benefit from on-site technical assistance, particularly in light of the addition of science as a subject for the 2007–2008 Alt-MSAs.
- Distribute detailed school- and student-level information on Alt-MSA performance and miscodes to school administrators (e.g., principals and school test coordinators) as well as to district leadership in order to identify areas of strength and address needed improvement at each site.
- Extend the dissemination of proficiency rates, miscode data, training, and portfolio consultation to special placement schools and/or to MSDE staff who provide support to these schools since students at these sites appear to have lower performance and higher proportions of nonscorable objectives when compared with students in MCPS.
- Collaborate with other public school systems such as PGCPSS that are successfully maximizing proficiency rates and minimizing nonscorable objectives to share best practices.
- Empower Special Education and Student Services staff to perform analyses of Alt-MSA data for more immediate reporting of results. This will promote more efficient use of data by special education leadership for formative purposes (e.g., monitoring schools and making administrative decisions to optimize student performance). OSA staff can provide a consulting role, as needed.
- In view of the nonscorable condition codes, consider the degree to which Alt-MSAs truly address student attainment of reading and mathematics mastery objectives rather than adult test administration errors.

Reference

- Martinez, C. (2006, December). *Testing Brief: Performance of Students Receiving Special Education Services on the Alternate Maryland School Assessment (Alt-MSA) 2005–2006*. Rockville, MD: Montgomery County Public Schools, Department of Shared Accountability.

ⁱ M. Gheen is an evaluation specialist with the OSA Testing Unit. H. Wilson is a research and data analyst with the Department of Special Education Operations and is a guest author on this brief. The authors wish to thank Dr. Deborah Taylor, supervisor, Department of Special Education Services; and Ms. E. Grace Chesney, supervisor, Testing Unit, OSA, for their generous contributions.

APPENDIX

Nonscorable Condition Codes

The nonscorable condition codes are:

1 — Mastery objective not aligned or reviewed or prompt not clear

- Mastery objective was determined to be not aligned during mastery objective review, and no revisions were made and mastery objective is still not aligned <or>
 - Mastery objective not reviewed during mastery objective review, and it is not aligned <and/or>
 - Number and/or type of prompt are not specified
-

2 — Artifact is missing or unacceptable

- Mastery objective does not have an artifact <or>
 - Mastery objective has an unacceptable artifact
-

3 — Artifact is incomplete

- No student name on artifact <and/or>
 - Artifact not dated with day, month, and year <and/or>
 - Dates on artifact are out of acceptable range <and/or>
 - No reasonable way to determine the mastery objective for the artifact <and/or>
 - No reasonable way to interpret key or notations on artifact
-

4 — Artifact does not align or components of the Mastery Objective are not evident

- Artifact does not align with or measure the mastery objective <and/or>
 - Components of the mastery objective are not evident in the artifact
 - a. Target number of student behaviors is not evident
 - b. Lack of evidence of observable, measurable student response on artifact
 - c. Either the visual or auditory is absent from the videotape artifacts <or>
 - The prompt level is stated as “Full Physical,” but the documentation for instruction toward less intrusive prompts and assistive technologies is not included
 - Does meet the criteria for dictated response
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5 — Data Chart does not show a minimum of three consecutive observations occurring/taken on different days prior to demonstration of mastery

6 — Accuracy scores not reported or reported incorrectly

- Accuracy score is not stated <or>
 - Verification of reported accuracy score does not reflect evidence in the artifact and accuracy is less than 80% <or>
 - A more intrusive prompt is used that is not consistent with the percent of accuracy reported on the artifact
-