MONTGOMERY
COUNTY PUBLIC
SCHOOLS

An Examination of the Grade 2 Global Screening for Identification of Gifted and Talented Students

Department of Shared Accountability

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Jose Stevenson, Ph.D.

Montgomery County Public Schools

DEPARTMENT OF SHARED ACCOUNTABILITY

Faith S. Connolly, Director
850 Hungerford Drive
Rockville, Maryland 20850
301-279-3925

Jerry D. Weast
Superintendent of Schools

John Q. Porter
Deputy Superintendent
for Information and
Organizational Systems

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Executive Summary

In the Montgomery County Public Schools (MCPS) Strategic Plan, *Our Call to Action: Pursuit of Excellence,* four critical questions are listed as Guiding Tenets. These questions are

- What do students need to know and be able to do?
- How will we know they have learned it?
- What will we do when they haven't?
- What will we do when they already know it? (MCPS 2005a)

The Grade 2 global screening process is used to identify all students who would benefit from more rigorous instruction. These students include those who "already know it," as well as students who have potential strengths but have not had the opportunities to demonstrate them. During March, April, or May multiple data are collected on each student including parent nominations, MCPS staff nominations, the Renzulli-Hartman teacher checklists, reading and mathematics instructional levels, scores on the Raven Test of Standard Progressive Matrices and the CTB/McGraw-Hill InView, and other performance data. To be identified as gifted and talented a student must meet the standard for Raven or InView and one other criterion, or a student must meet three other criteria with established standards. After data on each student have been collected, the school's gifted and talented committee, representing a variety of roles and perspectives and chaired by an administrator, analyzes the data of each second grade student, and uses multiple criteria to identify a student. No single criterion should be used to include or exclude a student.

It is important to note that the global screening process was revised in Spring 2005 to include the InView standardized assessment and a recentering of the local norms used with the Raven. The Raven and portions of the InView include nonverbal items. As a result, students receiving instruction for English for Speakers of Other Languages (ESOL) who struggle with reading and other students with language barriers have opportunities to demonstrate their strengths.

A total of 9,875 Grade 2 students were screened in 2004–2005. Of these students, 3,333 students (33.8%) were identified, compared to 4,503 (44.5%) identified in 2003–2004. However, African American and Hispanic students remain underrepresented relative to their representation in the total number of students screened. This is also reflected in underrepresentation in meeting standards on the Raven and InView assessments, parent nominations, and Renzulli-Hartman teacher checklist. Additionally, Hispanic students are underrepresented in the number of students identified as being instructed at least one grade level above in reading and mathematics and in nominations by MCPS staff.

Of the students who were recognized using other criteria and no assessment standards, the race and ethnicity representation is similar to that of all students except for Hispanic students who remain underrepresented (21.1% of all screened students and 12.3% of those meeting three or more other standards).

The following recommendations were developed as a result of this report.

1. **Conduct a thorough review of the global screening process in order to provide equity of access for all students to accelerated and enriched instruction.** Identify which components help uncover strengths in underrepresented populations. Use additional non-cognitive indicators (such as leadership skills inventories) to identify students and best match instruction to students' strengths.

2. **Ensure that all schools collect, share, and review data on all students**. **Implement consistent monitoring/accountability measures in all schools.** All schools will require staff advocacy, establish a process to secure parent nominations reliably for all students, analyze student math unit assessment data and reading performance data, and other indicators as well as student performance on the Raven Matrices. The baseline data of the 2004–2005 administration of the InView should be reviewed (see recommendation four). All schools should be held accountable for monitoring the full global screening process.

3. **Consolidate and use data.** Create a data entry process to consolidate global screening data into an IMS student report. These data should be used actively to seek out all students who would benefit from more rigorous instruction, as well as part of the state-mandated identification process.

4. **Analyze and formulate a recommendation for use of CTB McGraw Hill InView.** Determine if this assessment helps identify students who were not recognized by any other indicator. If this assessment does not lead to identification of additional students, discontinue its use.

5. **Enhance professional development for all instructional staff to better support students with more rigorous instruction.** Professional development should include information about the global screening process and related student data to help staff understand the importance of their input and implications for instruction.

6. **Strengthen parent outreach and training.** Develop multiple methods to inform parents and solicit their involvement in the decision-making process.

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Background

Global screening for gifted and talented students measures MCPS' ability to answer the four critical questions listed as Guiding Tenets.

In the Montgomery County Public Schools (MCPS) Strategic Plan, *Our Call to Action: Pursuit of Excellence* four critical questions are listed as Guiding Tenets. These questions are
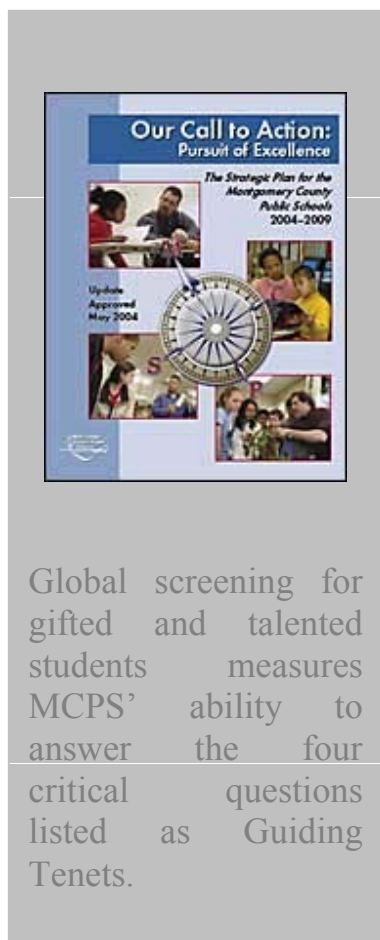
- What do students need to know and be able to do?
- How will we know they have learned it?
- What will we do when they haven't?
- What will we do when they already know it? (MCPS, 2005a).

One measure of success is the identification of gifted and talented students. The Code of Maryland Regulations (COMAR) requires students with "outstanding abilities" to be "identified by professionally qualified individuals" as "gifted and talented." The state further outlines and recommends an identification process in its Gifted and Talented Program Guidelines. MCPS Policy IOA, *Gifted and Talented Education*, and the accompanying regulation guide the implementation of gifted and talented services, including the requirement to assess the strengths and potential of all students.

Section 4a, MCPS Policy IOA, *Gifted and Talented Education*

"MCPS will carry out a broad-based screening of all students in Grade 2 and a rescreening of all students in the later elementary grades. Recognizing there is a range of abilities among gifted and talented students, this screening will identify gifted and talented students using multiple criteria of academic and leadership potential, including tests of academic achievement, aptitude, and creativity and the use of testing strategies designed for students of other languages; samples of student work; and nominations obtained from teachers, counselors, peers, parents, subject area experts, community members and the students themselves."

Screening Process

The global screening process fulfills the state mandate for gifted identification and is a tool for opening access to accelerated and enriched instruction to students who may otherwise be overlooked. The goal is to identify students' strengths and potential and plan for instruction and services that will extend those strengths. All Grade 2 students participate in the global screening process during March, April, or May. During this period, multiple data are collected on each student, including parent nominations, MCPS staff nominations, the Renzulli-Hartman teacher checklists, reading and mathematics instruction levels at least one grade above, scores on the Raven Test of Standard Progressive Matrices and the CTB/McGraw-Hill InView, and other performance data. InView subtests include sequences, analogies, quantitative reasoning, verbal reasoning words, and verbal reasoning context.

After data on each student have been collected, the school's gifted and talented committee representing a variety of roles and perspectives, and chaired by an administrator, analyzes the data of each Grade 2 student. The committee uses multiple criteria as guidelines to identify a student, and no single criterion should be used to exclude a student. At the end of the process, parents receive a report and explanation of their child's test scores (MCPS, 2005b).

Methodology

Key Research Questions

The following are the three key research questions addressed in this report regarding the Grade 2 global screening analyses.

1. How many students were screened in spring 2005, and how many of them were identified as gifted and talented?

2. How did students perform on each of the screening indicators?

3. Which students met the different criteria required for identification as gifted and talented?

District-level results for identification of American Indian students are reported in Table 1, but not in the body of the report because the number of American Indian students is too small to be reliable. As a result in Tables 2 through 8 percentages will not add to 100 as some students are missing.

Selection Process

To be identified as gifted and talented, a student must meet the standard for Raven or InView and one additional criterion, or the student must meet three other criteria with established standards. These other criteria include, parent nominations, MCPS staff nominations, the Renzulli-Hartman Teacher Checklists, reading and mathematics instruction levels at least one grade above, and other performance data. The process was revised in spring 2005 to replace the CTB/McGraw-Hill Test of Cognitive Skills with the CTB/McGraw-Hill InView and use recentered local norms with the Raven. It is important to note that the Raven and portions of the InView include nonverbal items. As a result, students receiving instruction for English for Speakers of Other Languages (ESOL) who struggle with reading and other students with language barriers have opportunities to demonstrate their strengths. The purpose of these revisions was to expand opportunities for all students potentially to be identified as gifted and talented.

Overview of the Raven and InView

Among the multiple pieces of data collected on each child are the scores from two standardized assessments: the Raven Test of Standard Progressive Matrices and the CTB/McGraw-Hill InView. Research and best practices document that non-verbal tests are "advantageous in that they provide a more equitable evaluation of children from culturally and linguistically diverse populations" (Naglieri, 2005).

Raven Test of Standard Progressive Matrices. While MCPS has used this assessment previously in the global screening process, the local norms that are used with the Raven were recentered for 2005. The Raven is a non-verbal test and is designed to assess a child's reasoning ability and aptitude to make sense of complex data, draw meaning out of ambiguity, and perceive and think clearly. The Raven is an untimed assessment and contains 60 items in a puzzle-like format.

CTB/McGraw-Hill InView. The InView standardized assessment is a new component of the global screening process; it was used for the first time as part of the global screening process in the spring of 2005. The InView combines aptitude and achievement information within five subtests: verbal reasoning words and verbal reasoning context, sequences, analogies, and quantitative reasoning. This is a timed assessment, but students with documented needs may have testing accommodations. Meeting the criteria on any three of the five subtests is considered one indicator for identification.

Results

Students Screened and Identified

A total of 3,333 students (33.8%) were identified as gifted and talented in 2004–2005, compared with 4,503 (44.5%) identified in 2003–2004 (Table 1). The lower rate of identification is likely due to modifications to the screening process implemented in 2004–2005. Analysis of the 2004–2005 data disaggregated by student race and ethnicity shows that the modified screening process had mixed results relative to the 2003–2004 data.

Table 1
Number and Percentage of Grade 2 Students Screened and Identified
in 2003–2004 and 2004–2005 by Race/Ethnicity

	2004–2005				2003–2004			
	Screened		Identified		Screened		Identified	
	N	*%*	*n*	*%*	*N*	*%*	*n*	*%*
All Students	9,875		3,333	33.8	10,118		4,503	44.5
African American	2,196	22.2	411	12.3	2,127	21.0	519	11.5
American Indian	37	0.3	18	0.5	26	0.2	7	0.2
Asian American	1,568	15.9	710	21.3	1544	15.3	887	19.7
Hispanic	2,079	21.1	354	10.6	2,101	20.8	625	13.9
White	3,995	40.5	1,840	55.2	4,320	42.7	2,465	54.7

African American and Hispanic students continue to lag in the proportion of students recognized. While African American students represent 22.2% of all students screened, they account for only 12.3% of students identified in 2004–2005. Hispanic students also are underrepresented. While Hispanic students represent 21.1% of all students screened, they represent 10.6% of students identified.

Performance on Screening Indicators

Students are identified if they meet the standards on the Raven or InView assessments plus one other criterion, such as parent nominations, MCPS staff nominations, the Renzulli-Hartman Teacher Checklists, reading and mathematics instruction levels at least one grade level above, and other performance data; or if they meet three of the non-assessment criteria. A review of student performance on each of the identification criteria follows.

Raven Test of Progressive Matrices

To meet the standard on the Raven assessment, students are expected to perform at the 75th percentile rank (i.e., outperform 75% of other students). The raw score needed to meet the 75th percentile is dependent on the student's age and performance. Newly established local norms were used in spring 2005.

Table 2
Number and Percentage of Grade 2 Students Meeting Raven
Standards in 2004–2005 by Race/Ethnicity

	Screened		Met Standard	
	N	*%*	*n*	*%*
All Students	9,875		2,999	30.4
African American	2,196	22.2	337	11.2
Asian American	1,568	15.9	669	22.3
Hispanic	2,079	21.1	318	10.6
White	3,995	40.5	1,661	55.4

Close to one third (30.4%) of screened students met the Raven standard. Examination of the percentages of students who met standard relative to the percentages of students screened by race and ethnicity shows that Asian American and White students are overrepresented while African American and Hispanic students are underrepresented (Table 2). For example, African American students represent 22.2% of all students screened and 11.2% of the students who met the Raven standard, while Hispanic students, who are 21.1% of the screened students, represent 10.6% of those who met the Raven standard. On the other hand, Asian American students represent 15.9% of the screened students and 22.3% of those who met the standard, and White students, who are 40.5% of those screened, are 55.4% of those who met the Raven standard.

InView

In 2004–2005, the InView assessment replaced the Test of Cognitive Skills to include quantitative and verbal components into the screening process. Students must have a minimum raw score of 17 on three of the five subtests to meet the standard to be identified as gifted and talented. Table 3 shows the distribution of students who met each of the InView standards overall and for each of the subtests by race and ethnicity.

About one in five (19.9%) students screened met the InView standard of three of five subtests. By subtest, the range of students meeting standard was from 19.4% on the verbal reasoning

context subtest to 26.6% on the analogies subtest. Compared with the Raven, fewer students overall and for each race and ethnicity met the InView standard.

Table 3
Number and Percentage of Grade 2 Students
Who Met the InView Standard Overall and by Subtest by Race/Ethnicity

	Met InView Standard 3 of 5		Sequences		Analogies		Quantitative Reasoning		Verbal Reasoning Words		Verbal Reasoning Context	
	N	%	N	%	N	%	N	%	N	%	N	%
All Students	1,965	19.9	2,573	26.1	2,631	26.6	2,510	25.4	2,049	20.7	1,912	19.4
African American	145	7.4	258	10.0	257	9.8	260	10.4	194	9.5	177	9.3
Asian American	434	22.1	582	22.6	582	22.1	613	24.4	420	20.5	295	15.4
Hispanic	109	5.5	279	10.8	304	11.6	227	9.0	120	5.9	108	5.6
White	1,268	64.5	1,444	56.1	1,476	56.1	1,403	55.9	1,307	63.8	1,322	69.1

Examination by race and ethnicity identifies the strongest performance for African American and Asian American students on the quantitative reasoning subtest (260 African American and 613 Asian American students met the standard), and for Hispanic and White students on the analogies subtest (304 Hispanic and 1,476 White students met the standard).

Parent Nominations

Parents of all Grade 2 students receive a Parent Nomination Form that contains a list of characteristics of gifted and talented students. Translations of this form are available. Parents need only to circle those characteristics that describe their child. Space also is provided for additional comments. The parent nomination form provides additional information that parents may observe at home or in other non-school situations.

Overall, 3,188 students' parents (32.3% of all screened students) identified their children as having special skill areas of performance (Table 4). This is the largest number of students who met the standard for any of the criteria established for identification.

Table 4
Number and Percentage of Grade 2 Students
Nominated by Their Parents in 2004–2005 by Race/Ethnicity

	Screened		Nomination	
	N	*%*	*n*	*%*
All Students	9,875		3,188	32.3
African American	2,196	22.2	499	15.7
Asian American	1,568	15.9	572	17.9
Hispanic	2,079	21.1	336	10.5
White	3,995	40.5	1,767	55.4

Examination by race and ethnicity shows that while African American students were 22.2% of the screened students with parent nominations, they represent 15.7% of total student population. Asian American students represent 15.9% of the screened students and 17.9% of those with parent nominations. Hispanic students are 21.1% of the screened students but represent only 10.5% of those with parent nominations. White students are 40.5% of the screened students and 55.4% of those with parent nominations.

MCPS Staff Nominations

The MCPS Staff Nomination Form provides other professional staff in the building an opportunity to advocate for Grade 2 students. Strong advocacy from one staff member other than the student's classroom teacher constitutes an indicator. Staff could include the ESOL instructors, special education, art, music, and physical education teachers.

Table 5
Number and Percentage of Grade 2 Students
Nominated by MCPS Staff in 2004–2005 by Race/Ethnicity

	Screened		Nominated	
	N	*%*	*n*	*%*
All Students	9,875		282	2.9
African American	2,196	22.2	69	24.5
Asian American	1,568	15.9	50	17.7
Hispanic	2,079	21.1	33	11.7
White	3,995	40.5	130	46.1

A total of 282 students (2.9% of all screened students) were identified through staff nominations (Table 5). The race and ethnicity of students nominated are similar to those of the screened population, except for Hispanic students, who are 21.1% of the screened students but represent only 11.7% of those with a staff nomination.

Renzulli-Hartman Teacher Checklists

The research-based Renzulli-Hartman Teacher Checklist is provided to each child's classroom teacher. There are three categories of indicators: Learning Traits, Motivation, and Creativity. The checklist is to be completed on every student in the classroom prior to seeing the student's performance on the assessments. Meeting the guidelines on any two of the three categories is considered an indicator.

A total of 2,306 students (23.4% of all screened students) met the standards of the Renzulli-Hartman Teacher Checklist. On this standard, African American and Hispanic students are underrepresented. African American students represent 22.2% of the screened students, but 14.2% of those who met the standard. Hispanic students represent 21.1% of the screened students, but 9.3% of those who met the Renzulli-Hartman Teacher Checklist standard (Table 6).

Table 6
Number and Percentage of Grade 2 Students Meeting Renzulli-Hartman
Teacher Checklists Standards in 2004–2005 by Race/Ethnicity

	Screened		Met Standard		Learning		Motivation		Creativity	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%
All Students	9,875		2,306	23.4	1,988	20.1	2,429	24.6	2,707	27.4
African American	2,196	22.2	328	14.2	266	13.4	371	15.3	413	15.3
Asian American	1,568	15.9	449	19.5	419	21.1	487	20.0	444	16.4
Hispanic	2,079	21.1	215	9.3	158	7.9	265	10.9	283	10.5
White	3,995	40.5	1,305	56.6	1,136	57.1	1,298	53.4	1,557	57.5

Reading and Mathematics Levels

To meet the standard of reading and mathematics levels, students must be instructed at least one grade level above their grade. A total of 705 students (7.1% of all screened students) met the standard for reading and 556 (5.6%) met it for mathematics (Table 7). In mathematics, African American students are underrepresented (18.0% of those who met the standard), as are Hispanic students (15.8% of those who met the standard). Asian American and White students are overrepresented (20.3% and 45.1% of those who met the standard, respectively).

Table 7
Number and Percentage of Grade 2 Students Being Instructed At Least One Grade Level
Above in Reading and Mathematics in 2004–2005 by Race/Ethnicity

	Screened		Met Reading		Met Mathematics	
	N	*%*	*n*	*%*	*n*	*%*
All Students	9,875		705	7.1	556	5.6
African American	2,196	22.2	146	20.7	100	18.0
Asian American	1,568	15.9	121	17.2	113	20.3
Hispanic	2,079	21.1	111	15.7	88	15.8
White	3,995	40.5	326	46.2	251	45.1

The low identification rate may be due to the fact that once identified, student records are no longer coded by staff. The reading and mathematics levels would not be needed for identification purposes.

Meeting Multiple Indicators

Of the 9,875 students screened, 4,204 (42.6%) met none of the standards needed for identification. A total of 3,469 (35.1%) met either the Raven or the InView standards, while a total of 2,399 (24.3%) met the criteria for one of the two assessments and had one other indicator to qualify for identification. A total of 559 (5.7% of all students screened) qualified for identification by meeting three other standards (Table 8).

Table 8
Number and Percentage of Grade 2 Students
by Number of Standards Met and by Race/Ethnicity

	All Screened Students		Met 0 Standards		Met Raven or InView		Met an Assessment +1 Other		Met 3+ Other	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
All Students	9,875		4,204	42.6	3,469	35.1	2,399	24.3	559	5.7
African American	2,196	22.2	1,270	30.2	382	11.0	240	10.0	110	19.7
Asian American	1,568	15.9	475	11.3	759	21.9	507	21.1	95	17.0
Hispanic	2,079	21.1	1,308	31.1	363	10.5	174	7.3	69	12.3
White	3,995	40.5	1,135	27.0	1,950	56.2	1,465	61.1	285	51.0

For the students who met no standards, African American and Hispanic students are overrepresented. For the group of students who met either the Raven or InView standards or who met an assessment standard and one other, the group is overrepresentative of Asian American and White students.

For the students who were identified and did not meet the assessment standards, the race and ethnicity representation is similar to that of all screened students, except for Hispanic students, who are underrepresented (21.1% of all screened students and 12.3% of those meeting three or more other standards).

Discussion and Recommendations

A total of 3,333 students (33.8% of all screened students) were identified as gifted and talented in 2004–2005, compared with 4,503 (44.5%) identified in 2003–2004 (Table 1). Of those students identified as gifted and talented, African American and Hispanic students are underrepresented. While African American students represent 22.2% of all students screened, they account for only 12.3% of students identified in 2004–2005. Hispanic students represent 21.1% of all students screened, but 10.6% of students identified. This underrepresentation also occurred in the number and percentage of students who met the Raven, InView, parent nominations, and Renzulli-Hartman Teacher Checklist standards. Hispanic students are also underrepresented by the standards of being instructed at least one grade level above in reading and mathematics and in being nominated by MCPS staff.

Of the students who were recognized using other criteria and no assessment standards, the race and ethnicity representation is similar to that of all students, except for Hispanic students, who remain underrepresented (21.1% of all screened students and 12.3% of those meeting three or more other standards).

The following recommendations were developed as a result of this report.

1. **Conduct a thorough review of the global screening process in order to provide equity of access for all students to accelerated and enriched instruction.** Identify which components help uncover strengths in underrepresented populations. Use additional non-cognitive indicators (such as leadership skills inventories) to identify students and best match instruction to students' strengths.

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6. **Strengthen parent outreach and training.** Develop multiple methods to inform parents and solicit their involvement in the decision-making process.

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