

Regular Board Meeting – June 16, 2009

**SUBJECT: SPRING 2009 MAP REPORT IN READING AND MATHEMATICS
 OVERVIEW**

The May, 2009 administration of the computerized adaptive test, Measures of Academic Progress (MAP) of the Northwest Evaluation Association (NWEA), completes the third, fall-to-spring cycle in grades 2-7 in reading and mathematics and the first, eighth grade fall-to spring cycle. Prior to this year, eighth graders did not take MAP assessments in the spring due to the number of tests taken for the high school; it was determined that this data point was important for annual growth purposes and curricular analysis for all grades 2-8 and eighth graders were administered the Spring MAP assessments for the first time this year. District 68 administers the MAP tests to all students with the exception of those in the ELL center classes, who primarily are comprised of students learning the English language for two years or less.

Four types of assessments are currently used in District 68: universal screening, diagnostic, progress monitoring, and yearly outcome. MAP assessments provide information to teachers, parents, administrators, and Board of Education members in the latter three areas. As a diagnostic assessment, it helps pinpoint individual and group strengths and weaknesses for targeting instruction. For progress monitoring purposes, it permits examination of how students are doing at three points in the school year for special education populations and those receiving intervention services. As an assessment of yearly outcome, student, grade level, and district performance are examined in relation to national norms and expected annual growth targets. District 68 uses these assessments to see curricular strengths and weaknesses in the content areas of reading and mathematics in relation to ISAT scores.

Individual score reports with accompanying explanations were mailed to OOHJH parents at the end of the school year and were included in K-5 end-of-year packets. Each time a student takes a MAP assessment, the new score is added to the prior data so that students, parents, teachers, and administrators may examine progress over time.

DEMOGRAPHIC CONSIDERATIONS

During the past three years, main demographic shifts included a 10% increase in the Free/Reduced Lunch (F/R Lunch) status of District 68 students, from 29% to 39%, a 2% increase in the number of ELL students, and a 3% decrease in special education students with IEP's. Other shifts included a change in ethnicity with a 2% increase in both Hispanic and Black/Non-Hispanic students, a 4% increase in multi-racial students accompanied by a 1% decrease in Asian/Pacific Islander students and a decrease in White/Non-Hispanic students of 7%. The mobility rate has fluctuated between 7% and 9% during the last three years with approximately an 8% mobility rate in 2009.

These shifts continue to challenge us to serve an increased number of students who have not been a part of our earlier curricular foundation balanced with meeting the needs of those who are ready for the next level of instruction. In grade 2, for example, only 70% of the students have attended schools in District 68 for all three of their years in school; by grade 8, only 50% have been enrolled since kindergarten or grade one. Thirty-four percent of eighth graders have been in the district four years or less.

DISTRICT 68 STUDENT PERFORMANCE IN RELATION TO NATIONAL NORMS

Chart A summarizes results in performance on the MAP reading assessment in Spring, 2009 in terms of grade and ethnicity, and Chart B summarizes results in performance of the ELL, Free/Reduced Lunch (F/R), and special education (with an IEP) groups. The scores are reported in relation to the 2008 NWEA norm group and expressed in Rasch UNITs (RIT), or equal interval units. In reading, District 68 mean scores in each grade closely approximated NWEA national norms for all grades ranging from -1.7 RIT units lower to + 5.5 RIT units above the national mean. None of the differences is at a level of significance. *Over the past three years, mean performance at each grade level has been within this range indicative of stable performance despite the shifting demographics and increase in the Free/Reduced population.*

Specific group performance showed greater variability between and among grade level counterparts. The second grade, IEP group in 2008 had lower performance at a level of significance, and second grade (ELL and IEP) groups had lower performance at a level of significance in 2007.

Racial group performance of students as well as IEP, ELL, and F/R Lunch groups in each grade remained fairly similar from the Spring 2007 to Spring 2009 testing. Black/African American students and Hispanic students begin below NWEA norms in the primary grades. Hispanic students reach the NWEA norms as a group by fourth grade and Black/African American students closely approach the NWEA norm by grade 7. RIT scores slowly increase for IEP and ELL students from grades 2-8 but do not reach NWEA norms at any time. The F/R Lunch population approaches the norm group beginning in grade 3.

**Chart A
Reading RIT Mean Scores by Grade & Ethnicity in Grades 2-8
Compared with District 68 & NWEA Norms for All Students Enrolled in Spring 2009**

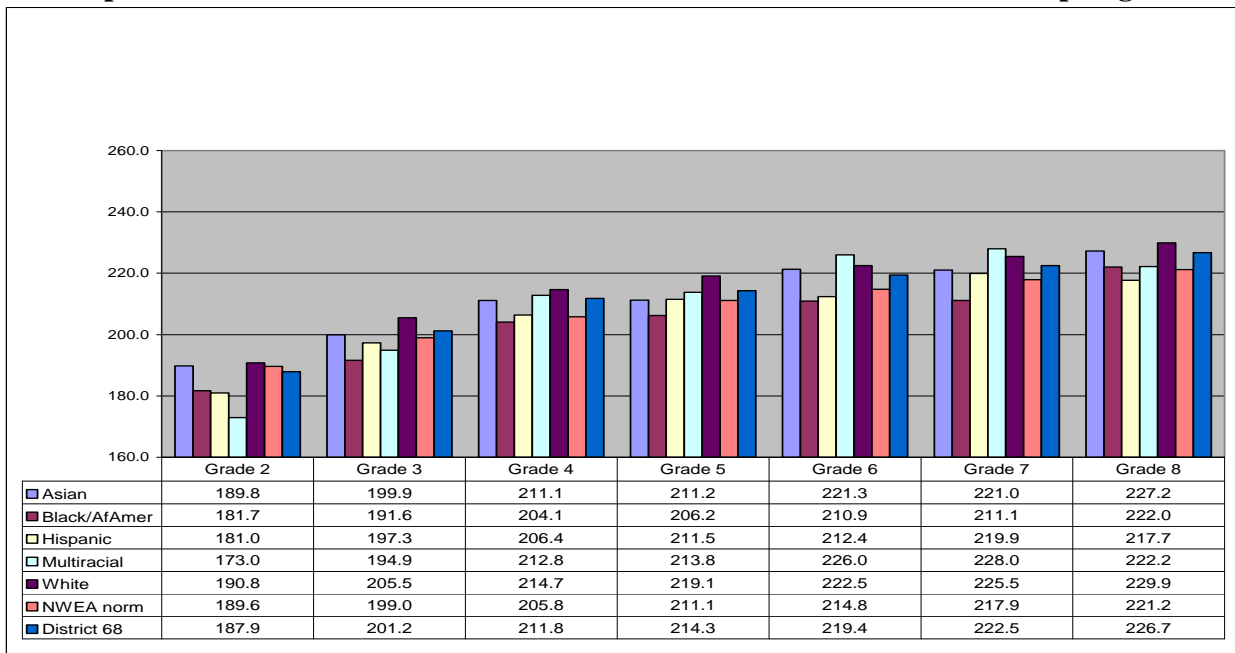
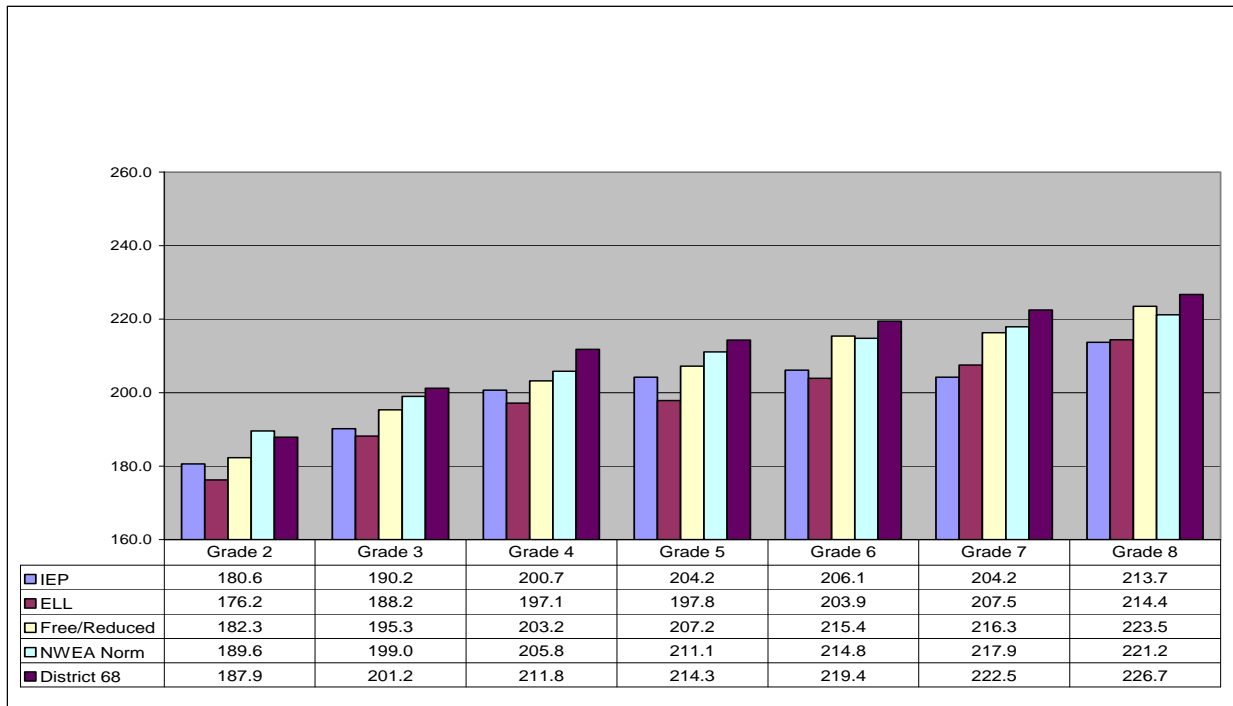


Chart B
Reading RIT Mean Scores by Grade & IEP, ELL, Free/Reduced
Compared with District 68 & NWEA Norms for All Students Enrolled in Spring 2009



Charts C and D summarize results on the MAP mathematic assessment in Spring 2009 in terms of grade, ethnicity, and specific groups. In mathematics, mean scores approximated national norms in all grades ranging from -3.4 units lower to 7.3 units higher. Black/African American students and Hispanic students begin below NWEA norms in the primary grades and come close or just reach the NWEA norm group by grade 8. RIT scores slowly increase for IEP, ELL, and F/R Lunch students from grades 2-8 but do not reach NWEA norms at any time; in grade 8, ELL and FR/L students reach the NWEA norm. Mean scores for each group are fairly similar from 2007 through 2009 with the exception of the Hispanic group in 2008 and 2009 and the Multi-racial group in 2009. All three groups had a slight downturn in the mean score for seventh and eighth grade groups.

Caution is needed in reading multi-racial group data as the mean often represents five or less students in any grade level. *IEP, ELL, Hispanic, and Black/African American group performance still lag behind Asian and White group performance mirroring national trends; FR/L groups appear to catch-up to the NWEA norm by grade 6.*

Chart C
Math RIT Mean Scores by Grade & Ethnicity in Grades 2-8
Compared with District 68 & NWEA Norms for All Students Enrolled in Spring 2009

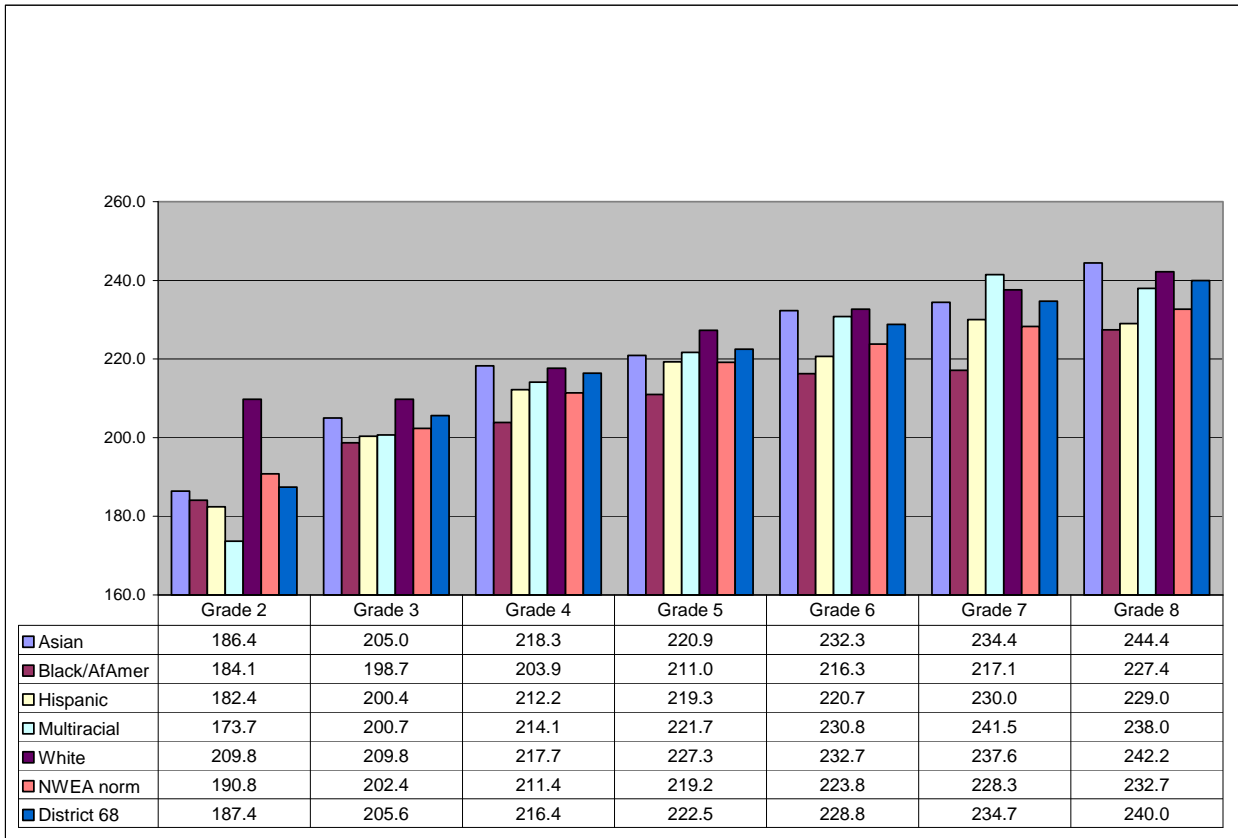
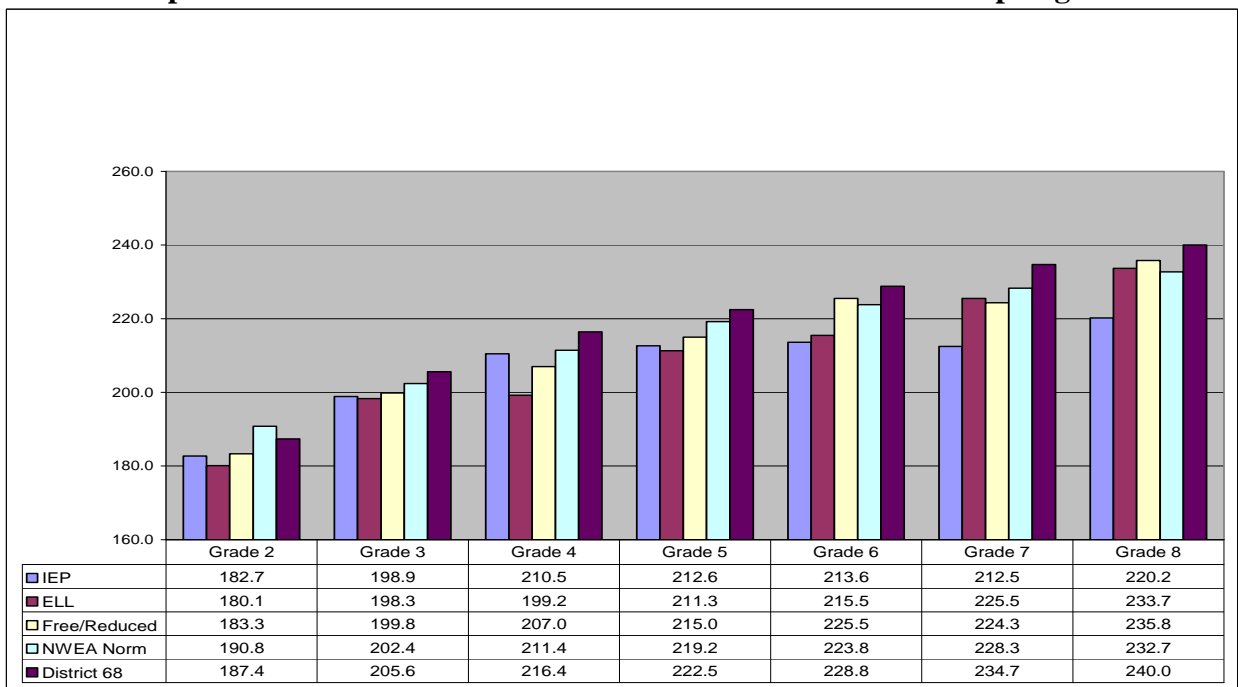


Chart D
Math RIT Mean Scores by Grade & IEP, ELL, Free/Reduced
Compared with District 68 & NWEA Norms for All Students in Spring 2009



DISTRICT 68 STUDENT GROWTH IN RELATION TO GROWTH TARGETS

MAP assessments compare groups and individuals based on growth targets that are calculated for the year after students complete a dynamically adjusted test. Each student has his/her own growth target and each group has its own growth target with which to make comparisons. The points are again measured in terms of a Rasch UnIT (RIT), which is an equal interval scale. In District 68, the growth target is established in the fall, can be checked in the winter, and is analyzed in the spring to ascertain if the target has been met, has fallen short, or has been exceeded.

Chart E reveals the mean growth target for each grade for the 2008-09 school year. Grade 2 and 7 were expected to grow 14.3 and 3.4 RIT points, respectively. These grades did not meet their targets. Grades 3, 4, 5, 6, and 8 were expected to grow 10.8, 8.6, 6.9, 4.6, 4.9, and 4.5 points, respectively and met their targets. NWEA norm group targets are similar to these growth expectations with more growth points expected at the earlier levels decreasing to the 3-4 range by grade 8. The target points are indicated in red and joined by the red line. The yellow bars indicate the means of growth for grades 2-8. The targets for each student in the class are combined and averaged; the growth units for the class are combined and averaged.

Chart E
Student Growth in Reading
Fall to Spring 2009

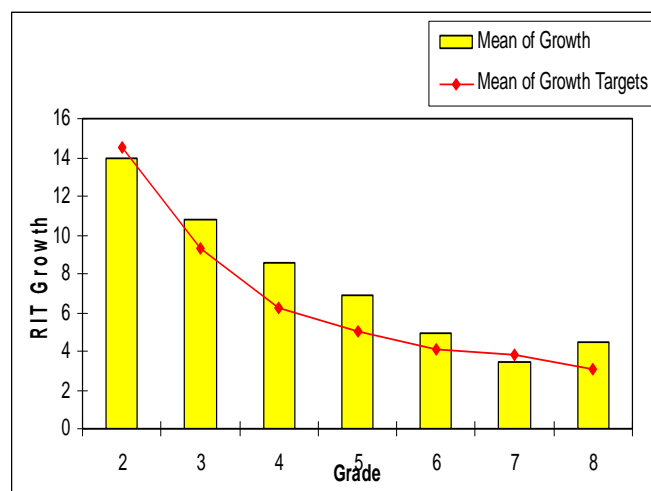


Table 1 presents additional information regarding reading growth in relation to targets and compares the current year to the prior years. *It should be noted that the mean growth expected has increased yearly for almost every group. This means that most groups in 2009 had more RIT points to achieve than students at the same grade level in prior years in order to meet group targets.* The groups met the targets in fourteen of nineteen annual measures during the last three years; the groups did not meet targets in the grades and years indicated in yellow, but approached the target above the ninety percent level. *The content revisions in the main academic areas in the last five years, the honing of research-based instructional practices, the development of intervention programs, and the commitment of the staff to improving the performance of students have resulted in the majority of growth targets for each grade level being met by the group in aggregate.*

Table 1
Student Growth in Reading*
Grades 2-8, Targets for Spring 2009, 2008, & 2007

Grade	Target for Spring 2009			Target for Spring 2008			Target for Spring 2007		
	Mean Growth	Percent Of Target Met	Percent Met Individual Growth	Mean Growth	Percent Of Target Met	Percent Met Individual Growth	Mean Growth	Percent Of Target Met	Percent Met Individual Growth
2	14.0	96.9	51.0	14.3	103.2	50.3	12.3	95.5	51.3
3	10.8	116.8	63.0	8.7	116.1	50.1	8.8	92.6	51.6
4	8.6	140.0	64.4	6.3	128.3	63.4	5.7	126.8	61.1
5	6.9	137.5	62.9	4.6	150.7	67.3	4.8	104.2	52.0
6	4.9	119.5	61.7	3.8	130.8	59.4	3.8	126.3	62.0
7	3.4	91.9	52.2	3.0	127.5	56.0	3.1	93.6	55.7
8	4.5	143.1	58.6						

*Student growth is calculated by analyzing RIT scores of students who completed testing at both the beginning and at the end of the school year.

Another feature of Table 1 is the percent of students within the grade level who met individual targets of expected growth. There appears to be a slow but steady increase in four of the six grades in the percentage of students meeting individual targets over the past three years, with the exception of grades 2 and 7. *In times of changing demographics in a district like ours, this is helpful information in order to place increases and declines in scores in perspective.* Grade 2 appears to be impacted by several factors including lack of experience with the MAP test format and a shift in emphasis from decoding to comprehension. Grade 7 performance has been more varied.

Though MAP performance scores are stable with some slight increase in four grades, the raising of the “meets or exceeds” percentage to 70% for each sub-group on the ISAT this year will probably result in our missing targets for one or more sub-groups this year. Through our data warehouse, *Just 5 Clicks*, the reading performance of students who began in each of four quartiles during the year from highest to lowest was examined. A positive growth pattern despite membership in the highest or lowest quartile is evident in Chart F. Teachers appear to be able to reach students where they are and move them forward whether they are a member of one of the higher quartiles or lower quartiles. Some students are entering at very low levels and moving at slower rates which will impact our ability to make AYP.

Chart F
Percent of Students Meeting Individual Growth Targets By Quartiles in Grades 2-7

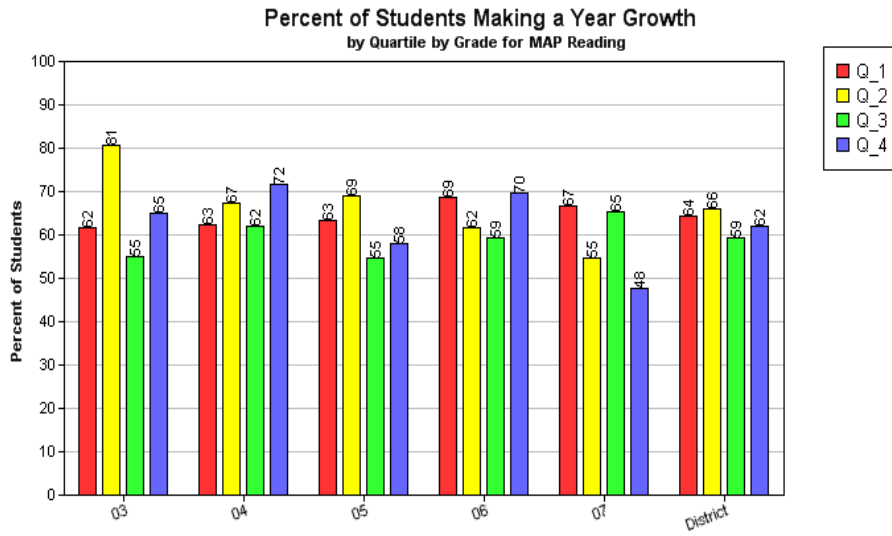


Chart G reveals the growth targets for students in Grades 2-8 in mathematics. Grades 3-8 exceeded their targets; Grade 2 missed the target by 2 RIT points.

Chart G
Student Growth in Mathematics
Fall to Spring 2009

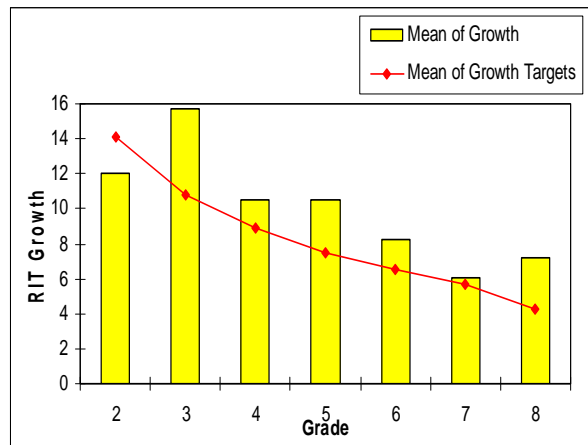


Table 2 displays percentages of targets met and individual growths met by grade. For the third year in a row, grade 2 did not meet its respective targets; Grade 7 met its target for the first time in three years.

Table 2
Student Growth in Mathematics*
Grades 2-8, Targets for Spring 2009, 2008, & 2007

Grade	Target for Spring 2009			Target for Spring 2008			Target for Spring 2007		
	Mean Growth	Percent Of Target Met	Percent Met Individual Growth	Mean Growth	Percent Of Target Met	Percent Met Individual Growth	Mean Growth	Percent Of Target Met	Percent Met Individual Growth
2	12.0	84.8	39.2	14.3	91.4	50.3	13.5	91.5	46.1
3	15.7	144.4	77.4	10.6	126.3	60.1	10.5	95.9	56.8
4	10.5	117.3	61.0	8.5	125.6	63.4	8.2	121.3	64.3
5	10.5	140.4	66.5	8.5	116.5	67.3	8.6	108.4	61.8
6	8.2	127.2	62.0	6.9	97.7	59.4	6.9	122.3	64.0
7	6.1	108.0	54.6	5.8	71.7	56.0	5.5	73.0	48.4
8	7.2	169.3	73.5						

*Student growth is calculated by analyzing RIT scores of students who completed testing at both the beginning and at the end of the school

The three levels of mathematics curriculum in grade 7 were reduced to two in 2007-2008, which exposed a greater percentage of students to both general mathematics and pre-algebra/algebra. For example, while the regular math classes give equal balance to each of the five standards areas, the pre-algebra/algebra classes spend more time in applications of mathematics and algebra which are less the focus of the MAP test. It should be noted that our ISAT performance in math has continually been strong, with scores consistently in the upper 80's for the "meet and exceeds" category and that OOJH aligned the district curriculum very tightly with ISAT when the AYP issue arose four years ago.

The shortfall in grade 2 targets appears to be most related to difficulties with number sense. Increased experiences with quantities and groupings of ones, tens, and hundreds combined with counting manipulatives and coins are needed over time, especially for our lowest performing students. Also, comfort with the addition and subtraction math facts is foundational and needs to be reinforced.

DISTRICT 68 STUDENT PERFORMANCE IN RELATION TO STANDARDS

Another manner in which RIT scores may be viewed is in relation to national standards which include the Illinois Standards. The reading score is divided into four areas representing four reading standards: Word Analysis and Vocabulary (WAV), Reading Strategies and Comprehension (RS/C), Literature, (LIT), and Literary Works (LIT WORKS). Across all grade levels, performance is a bit higher in two of the categories, Literature and Literary Works. In contrast, Word Analysis/Vocabulary, as well as Reading Strategies/Comprehension trail in our scores. Our tiered interventions are targeting these two areas and will continue to do so more scores. Our tiered interventions are targeting these two areas and will continue to do so more intently next year. *The impact of poverty on the vocabulary of students is well documented in research and will take years to overcome.*

RIT Means in Relation to Standards, shows student performance in relation to five mathematics standards: Knowledge and Use of Numbers, Measure and Compare Quantities, Algebra and Analytic Methods, Geometry Concepts, and Statistical Analysis and Probability. A pattern is once again evident as stronger performance is seen in geometry and statistics/probability while use of numbers, measurement, and algebra scores evidence need for greater focus. The present K-5 math program is recognized for its attention to problem solving. A team of grade 3-5 teachers developed a homework packet in the summer of 2008 which targeted number sense more directly including reinforcement of math facts throughout the 2008-09 year. *The use of this packet along with the regular curriculum appears to have helped students because these grades exceeded their growth targets in an increased manner this year.* These efforts will be replicated in grade 2 this summer and the OOHJH math teachers will examine programs for interventions which reinforce number usage more extensively for our lowest students in math to be implemented in 2009-10.

CONCLUSIONS

With the completion of the third, fall to spring MAP cycle in grades 2-7 and the first, fall to spring MAP cycle in grade 8, we have a solid foundation for future trend analysis in relation to group performance and individual student performance based on growth targets. MAP data, along with ISAT and AIMSWEB assessments such as reading fluency and comprehension checks, reveal a comprehensive picture for each student, each class, each school, and ultimately our district, regarding performance in relation to the nation, Illinois, grade level, and the student's personal, academic growth.

Hispanic, African-American, IEP, F/R Lunch, and ELL groups trail other groups although there is gradual improvement in the performance of each group. *Growth targets for the grade levels as a whole are being met at a higher percentage than individual growth targets indicating that there is a greater potential for increasing individual student performance.* An examination of scores by grade level in relation to standards in reading indicates slightly better performance in the areas of literature and literary works and continued attention needed in word analysis/vocabulary and reading strategies/comprehension. More targeted intervention programs are planned in reading for all grades in 2009-10. In mathematics, strength areas appear in geometry and statistics with attention needed in use of numbers, measurement, and algebra/analysis. Plans are being developed this summer for more direct targeting of number use.

Professional staff development activities next year will focus on the alignment of lessons to standards and rigor of lessons in all academic curricular areas and most Encore areas. Having students express what they know in written form will also be emphasized to provide practice in explaining their thought processes. Another focus will be data analysis as leadership teams and problem-solving teams analyze student performance in relation to teaching. By utilizing the *Just 5 Clicks* data management system and progress monitoring through *AIMSWEB*, our efforts will be designed to better meet the needs of our students on an individual, class, school, and district basis.