

**SEVENTH ANNUAL REPORT OF THE CMS EQUITY COMMITTEE
TO THE CHARLOTTE-MECKLENBURG BOARD OF EDUCATION
AND SUPERINTENDENT DR. PETER GORMAN**

January 15, 2009

The CMS Equity Committee is charged by the Board of Education with the task of reviewing how CMS Schools provide “equal access to excellent education opportunities for all of its students in all of its schools.”¹ To that end, the Equity Committee has reported for several years on the disparities in resources given to schools (inputs) as well as the achievement gaps among groups of students (outcomes).

In 2008, the Committee focused on several topics. This report presents accounts of research, interviews, concerns and recommendations for the Board’s consideration. The Committee is hopeful that this approach will allow the Board to take prompt and proactive consideration of these issues.

The following two topics were addressed in depth:

1. Teacher Assignment and the Distribution of Teacher Resources
2. Math Literacy

The committee also reviewed a third topic and provided observations and concerns for the Board:

3. Talent Development

In addition, the Equity Committee continued its tradition of visiting several schools and offering a report of equity findings or issues. School visit summaries can be found in the appendix of this report.

Finally, despite the concentrated focus on a few key topics, we did have some time to discuss and generally weigh-in on other equity topics. A very brief perspective on these matters is offered near the end of the report and includes the Committee’s sincere desire to see the report’s observations given substantive attention and consideration.

I. Teacher Assignment and the Distribution of Teacher Resources

The Committee’s 2007 report to the Board of Education states, “Despite the general consensus that the most important influence on a child’s academic success in school is that child’s teacher, CMS teachers differ in experience and education significantly from school to school”. Specifically, FOCUS schools fail to have a mix of teachers comparable to those in Schools of Distinction and Schools of Excellence.

¹ From the Board of Education’s document outlining the “Establishment and Purpose of the Committee”

The Equity Committee decided to take a close look at CMS's teacher hiring and retention programs and the distribution of experienced teachers among schools. Chief of Staff, Tyler Ream provided the following sources of information. In the process of the Committee's assessment, the following discussions and presentations occurred:

- The Committee heard a presentation on the various bonus and retention programs available in CMS;
- A sub-committee met with Mr. Maurice Ambler, Chief Human Resources Officer, and other CMS staff members to discuss in detail the district's current recruiting and retention goals;
- School visits were conducted to some campuses impacted by the Strategic Staffing Initiative;
- Analysis was done on the experience levels of core subject teachers in middle schools.

Summary of Findings:

1. Our analysis of middle school teacher experience shows that schools with low achievement levels are most likely to have lower core subject teacher experience based on median experience.
2. CMS needs an effective, comprehensive plan for teacher recruitment and retention.
3. Strong leadership is crucial to the success of challenged schools.

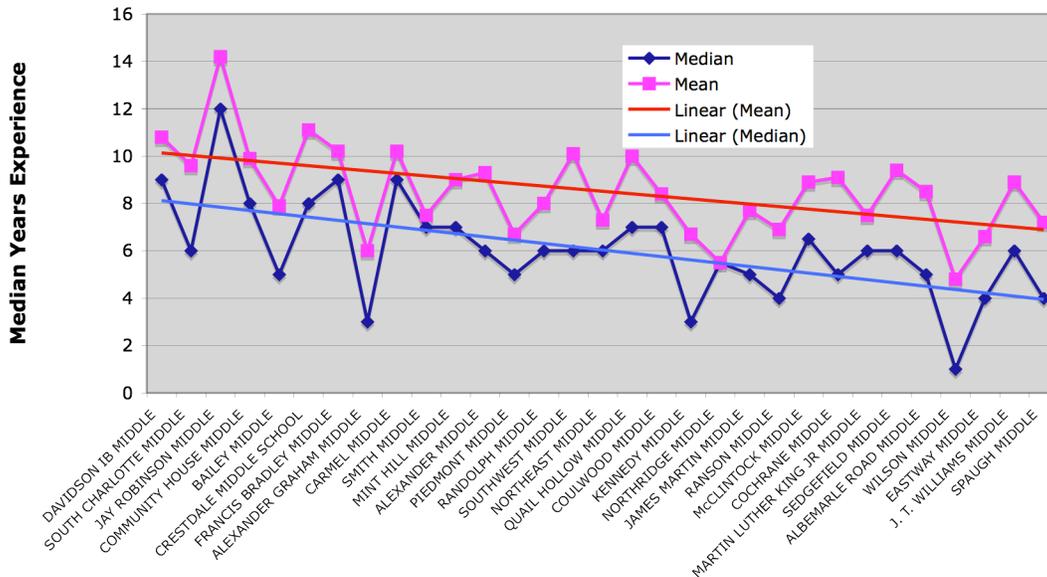
Distribution of Experienced Teachers:

CMS has reported "average" (mean) teacher experience in schools in the annual Equity Report. However, this "average" calculation does not differentiate between a school with 10 teachers, all 5-year veterans, and a school with two 20-year veterans and 8 first year teachers. Both have average teacher experience of about five years. To mitigate this problem, the data below present "median" teacher experience in a school—half of the teachers have more experience and half have less.

The attached charts show the median middle school teacher experience in core subject areas: math, science, social studies, and language arts. For example, at Wilson Middle School, 2007-08 core subject median teacher experience was ONE. Half the teachers had 1 or fewer years of experience. At JM Robinson Middle, 2007-08 core subject teacher experience was 12 years. Half of the teachers had 12 or more years of experience.

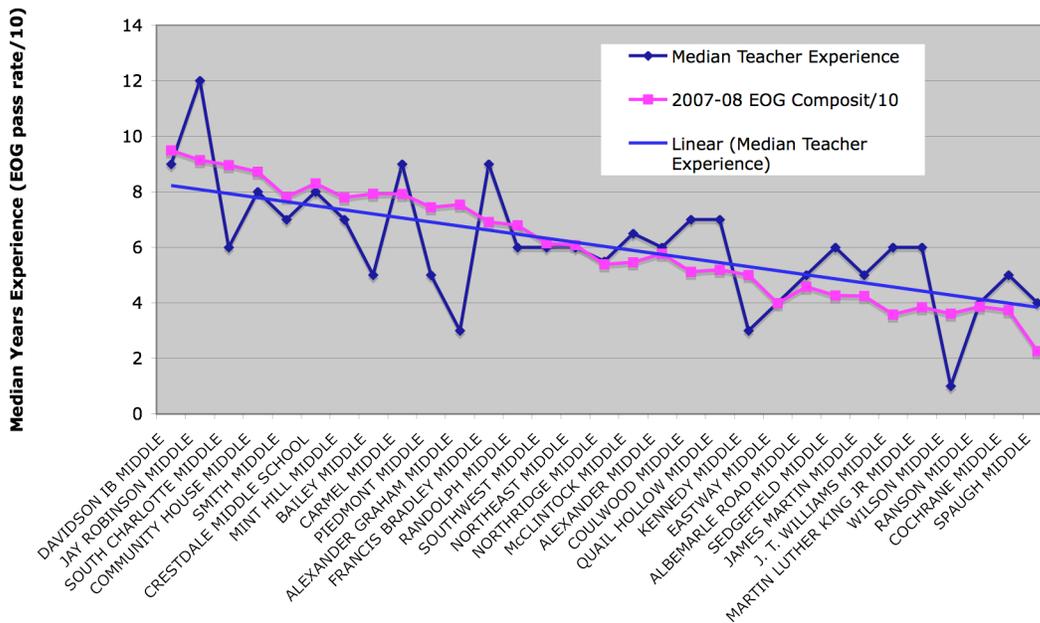
2007-08 Middle School Core Subject Teacher Experience

includes Science, Math, Social Studies, Language Arts classroom teachers



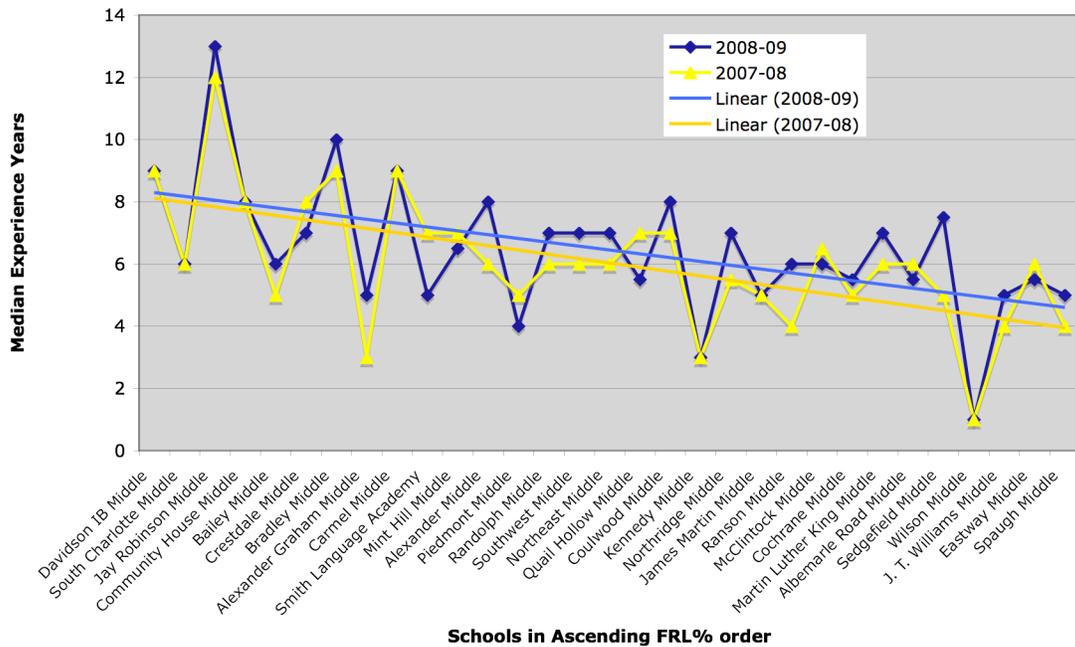
Schools in 2007-08 Ascending FRL% order

2007-08 Middle School Core Subject Teacher Experience includes Science, Math, Social Studies, and Language Arts classroom teachers



Schools in Ascending FRL% order

**Median Core Teacher Experience 2007-08 & 2008-09
Science, Math, Social Studies & Language Arts**



Note: All FRL percentages represent 2007-08 data

Impact of Teach for America Teachers on Median Teacher Experience:

Questions have been raised concerning the impact of Teach for America (TFA) teachers on the median teacher experience. Since TFA teachers teach for two years, they are by definition inexperienced teachers. However, some have argued that these young, enthusiastic teachers might outperform their more experienced counterparts. National data comparing the success of TFA teachers to other non-teachers is thin. At the elementary level, TFA teachers were found to be marginally more effective in boosting math achievement but were no more effective in reading². This study compared TFA teachers to other teachers in these highly-challenged schools—not to a general population of teachers. A study of high school TFA math and science teachers found them significantly more effective than both new and veteran teachers³. There is no data on middle school TFA teachers or non-math and science high school teachers.

The chart below makes the assumption that TFA teachers perform at the level of the most experienced teachers (red TFA Adjustment line). Although we have not looked at

² Decker, Paul T., Mayer, Daniel P., Glazerman, Steven. Mathematica Policy Research, Inc., “The Effects of Teach for America on Students: Findings from a National Evaluation” June 9, 2004.

http://www.teachforamerica.org/research/studies_student_outcomes.htm

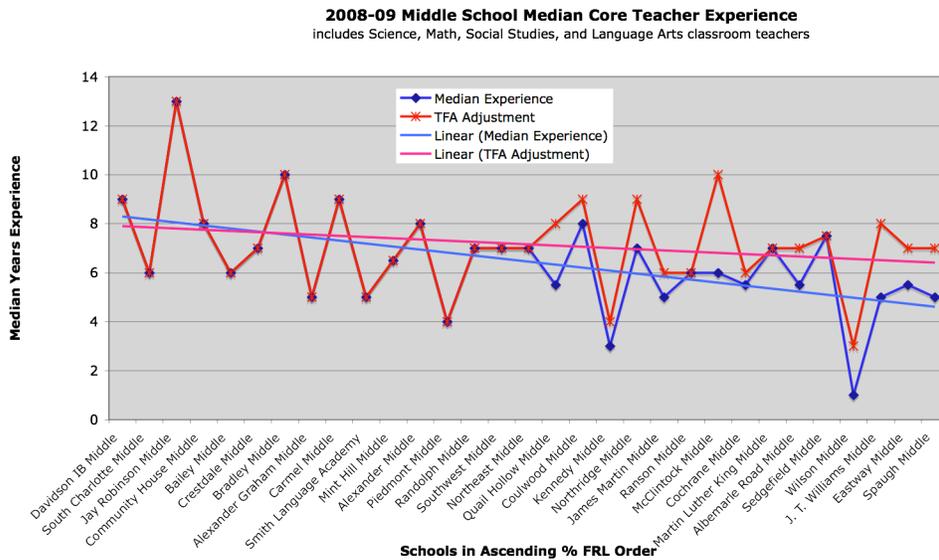
³ Xu, Yeyu, Jane Hannaway, Taylor, Colin. Urban Institute, “Making a Difference? The Effect of Teach for America on Student Performance in High School” March 27, 2008.

<http://www.urban.org/url.cfm?ID=411642>

specific research regarding TFA effectiveness, the chart below gives the benefit of the doubt to TFA teachers. The TFA Adjustment was derived by moving the TFA teachers from the bottom of the experience rank to the top. So, in a school with two TFA teachers, the median teacher experience was moved up two steps in the ranking. To illustrate, in the following years of teacher experience rank the median is 2. If the two red numbers represent TFA teachers, the TFA Adjusted median would be 5.

0, 0, 1, 2, 2, 5, 5, 7, 8 Standard Median 0, 2, 2, 5, 5, 7, 8, 0, 1 TFA Adjusted Median

The chart shows limited impact of Teach for America teachers on the overall teacher experience level at high poverty schools (TFA teachers are only placed at high poverty schools). Even *assuming* that TFA teachers are equivalent to highly experienced teachers (the red line), the disparity in median teacher experience across schools is evident.



School	Median	TFA Adjusted Median	Number of Core Subject TFA teachers
Randolph Middle	7	7	2
Coulwood Middle	8	9	2
Quail Hollow Middle	5.5	8	3
Kennedy Middle	3	4	3
James Martin Middle	5	6	5
Northridge Middle	7	9	7
McClintock Middle	6	10	5
Ranson Middle	6	6	4
Cochrane Middle	5.5	6	3
Albemarle Road Middle	5.5	7	4
Martin Luther King Middle	7	7	1
Eastway Middle	5.5	7	4
Wilson Middle	1	3	8
Spaugh Middle	5	7	3

CMS Hiring and Retention Bonus Programs:

Among many bonus programs, CMS has two new bonus programs in addition to the High School Challenge: The Strategic Staffing Initiative and TIF (pay-for-performance). As grant funded programs, each of these programs addresses the needs of a limited number of schools for a finite period of time.

The Strategic Staffing Initiative implemented in the 2008-09 school year placed seven proven principals in struggling schools. Each principal was allowed to recruit up to five high-performing teachers and other staff. While the Equity Committee is eager to see the results generated in these schools, we are concerned that 79% of the staff recruited to these seven schools came from other FOCUS schools.

The Strategic Staffing Initiative Impact at Two Schools:

Members of the Equity Committee visited two Title I (high poverty) elementary schools affected by the Strategic Staffing Initiative and described below as *School A* and *School B* in October 2008. We observed the intended and unintended consequences of the Strategic Staffing Initiative.

School A's principal moved to the school as part of the Strategic Staffing Initiative. *Principal A* has extensive experience in CMS and other systems. *Principal A* described the condition of *School A* when he arrived in July as “despicable,” citing computers in disrepair, art and music rooms disheveled and full of broken equipment, and instructional materials stored and never opened. *Principal A* said that an experienced principal is key to the success at a school as challenged as *School A*. *Principal A* also described the defeated culture of the school as one in which “teachers stop asking and then stop expecting.” It was clear to the Equity Committee members present that *Principal A* had made great strides in changing that culture and was committed to finding whatever resources teachers needed to be successful.

Principal A's five staff picks as part of the Initiative included the assistant principal and two staff members—all from high poverty schools. *School A's* staff also includes a full-time social worker, parent advocate, full-time nurse, a Child's Place staffer, two Behavior Management Technicians, two literacy facilitators, one math facilitator, and new this year, Communities in Schools support.

Clearly, the Strategic Staffing Initiative offers great hope to *School A*.

The following week, Equity Committee members visited *School B*. *School B's* former principal had departed to another challenged school as part of the Strategic Staffing Initiative. Four additional, highly successful staff had left *School B* as part of the Initiative.

School B's new principal is a first year principal after having served as an assistant principal at a suburban elementary school. Her assistant principal is also in her first year in that position. *Principal B* reported that the school lost five of its strongest staff members to other schools this year because of the Strategic Staffing.

The impact of Strategic Staffing on School B may have been exacerbated by the pre-existing conditions at the schools. In addition to the Strategic Staffing impacts, *School B* lost its custodial staff and gained about 14 new staff members. All but one of these staff were placed at *School B* by Human Resources, not selected and hired by *Principal B*. The HR placements were evidently due to the surfeit of “contingency contracts” offered by HR which guaranteed placements. While *Principal B* did not select her team, she will be held accountable for their performance. Since *School B* failed to make its Annual Yearly Progress (AYP) target last year, it is under the first year of Title I sanctions and particular pressure to improve performance.

Adding to the pressure from No Child Left Behind (NCLB) requirements, *School B* became a SAC placement site this year: three classes of profoundly disabled students. Unlike *School A*, *School B* lacks many student and family services. *B* has a part-time parent advocate and a part-time nurse. According to *Principal B*, the school needs a social worker, a full-time parent advocate, and a full-time nurse. *B*'s nurse is only present at the school on Mondays and Wednesdays. Unfortunately, a part-time nurse cannot meet the full-time health needs of the SAC (some of whom have seizure disorders) and other student populations. The prior, more experienced leadership and accomplished teachers may have been better equipped in the short run to cope with these challenges.

The Strategic Staffing Initiative has had profoundly different impacts on these two schools. *School A* benefits from an award winning, experienced principal who is empowered to build a strong staff team. *School B* lost many talented staff and lacks the student and family support services available at *School A*. While *Principal B*'s talents, enthusiasm, and commitment to her school were clearly evident, we are concerned that the Strategic Staffing Initiative has made her job even more difficult.

Conclusions and Recommendations:

1. *CMS needs to adopt a plan that will make the distribution of teacher experience more equitable.* The analysis of middle school teacher experience shows that teachers are not equitably distributed across schools. Schools with low achievement levels are most likely to have low median teacher experience, especially in core subjects.

The Committee's study only examined middle school core teachers. *We would like to see similar charts of median core teacher experience levels in elementary schools (using classroom teachers) and high schools (looking at EOC teachers).*

The incentive programs developed to date have not eliminated teacher experience gaps.

CMS should carefully monitor academic growth of students in TFA classrooms and compare those scores to the growth scores of first and second year teachers across CMS. Placement of Teach for America teachers in high-poverty, low-achieving schools accounts for only a part of the deficit in core teacher experience. Even assuming that TFA teachers contributed maximum experience to the median calculation, high-poverty,

low-achieving middle schools still had low core teacher median experience levels. While TFA teachers can bring needed energy to a school, no study shows any evidence of improved academic achievement except in high school math and science, and marginal improvement in elementary school math.

2. CMS should adopt a comprehensive plan for teacher recruitment and retention.

Recruitment programs (TIF, Strategic Staffing) are grant funded with different requirements and implementation plans. When the grant funding ends, there isn't secure funding to continue the programs even if they are successful. Human Resources has no system or program to improve teacher retention.

During a CMS National Board Certified Teachers summit in 2007, they identified keys to teacher recruitment and retention in high poverty schools: strong leadership, guaranteed small class sizes, salary increase, and ensuring that there are sufficient numbers of experienced teachers so that a small number of experienced teachers do not become overwhelmed. *CMS should implement practices that respond to these teacher generated suggestions for improving teacher recruitment and retention.*

3. CMS should continue to appoint strong principals to its most challenged schools while protecting schools from unintended negative consequences. Leadership is key to a school's success. A strong principal is crucial to attracting and retaining teachers to challenged schools. *New principals need to be supported such that they can be successful. Increasing principal professional development, and mentoring new principals, could help build a strong principal corps.*

II. Math Literacy

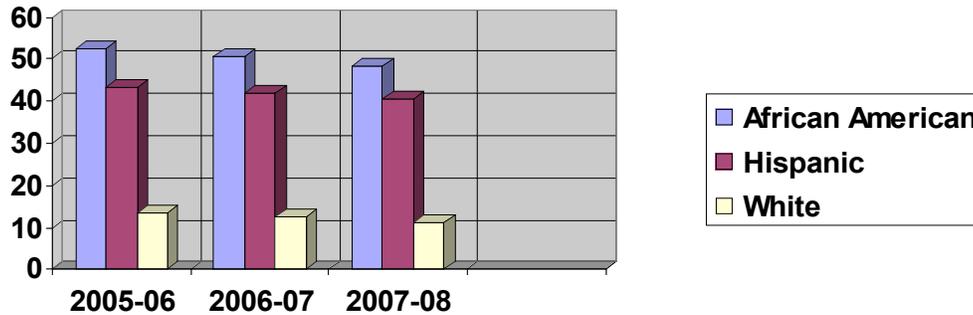
While CMS has improved its overall math EOG test scores in recent years, it is obvious that far too many African American and Hispanic children are not achieving at an acceptable rate in math. According to the 2007-2008 math EOG scores, 48.2% of African Americans and 39.8% of Hispanics scored below Level III (proficient), while the average failing rate for all students was 32.3% and for white students was 11.4%. This report defines "failure" as scoring Level I or Level II. It seems highly unlikely the district will reduce the achievement gap enough to reach its 2010 goals: an 88% pass rate on math EOG's with no more than a 10% disparity in academic achievement based on race, ethnicity or socio-economic status. (See graph below.)

Other district data show that:

- During the 2007-08 school year, 54 of CMS' 92 elementary schools recorded math End-Of-Grade failure rates of 30% or higher.
- Of those 54 elementary schools, two recorded failure rates of 70%. Another 20 recorded failure rates of 45% or more.
- Forty-three of those elementary schools are FOCUS schools serving large numbers of low-income children of color.

Math EOG Composite Scores 2005/2006 – 2007/2008

ELEMENTARY MATH EOG FAILURE RATE GRADES 3RD - 8TH



We recognize that the current disparity is not a characteristic of CMS alone. The math achievement gap is a statewide and nationwide problem. In March 2008, the National Mathematics Advisory Board warned that our national system of mathematics education is “broken” and poses a major threat to America’s international standing.⁴ Statewide and nationally, more colleges are offering remedial math courses. In CMS, it is becoming standard practice for high schools to adopt extra measures in an effort to get students up to speed in math.

The solution, according to the National Mathematics Advisory Board, is to “put first things first” by targeting math fundamentals early on with the goal of building a foundation for students to take higher-level math in preparation for college. That view was echoed in a 2006 article in the *Educational Studies in Mathematics* journal that “the best and surest way to improve secondary school math performance for “at risk” students is to provide them with a solid foundation in basic skills in elementary school.”⁵

The Equity Math Subcommittee has focused most of its attention on elementary math, but acknowledges these issues are complex and affect every grade level.”

Approach:

The Equity Math Subcommittee’s work included:

- Two focus groups with retired, former and current teachers; retired or former administrators; and parents at First Baptist Church-West and Providence Springs Methodist Church.

⁴ National Mathematics Advisory Panel. *Foundations for Success: The Final Report of the National Mathematics Advisory Panel*. U.S. Department of Education, Washington, DC, 2008

⁵ Hook, William, Bishop, Wayne and Hook, John. *Educational Studies in Mathematics. A quality Math Curriculum in Support of Effective Teaching for Elementary Schools*. September 2006.

- An initial meeting with Dr. Cindy Moss, CMS director of Math and Science; Barbara Bissell, Pre-K-5 Math Specialist; and Olivene Roberts, Executive Director of the South Learning Community.
- A meeting of the full Equity Committee with Ann Clark, Barbara Bissell and Bill Scott.

Key Observations:⁶

- One of the most salient points made during our discovery period was a staff comment that many CMS students are “school dependent” for much of their basic educational and social needs. Too many students begin school with little or no “math sense.”
- The National Mathematics Advisory Board, citing a 2007 survey conducted by the National Opinion Research Center at the University of Chicago, found that teachers most often pointed to the need for a greater focus on proficiency in basic mathematical concepts and skills at the elementary level.⁷
- Parents from a high-scoring elementary school pointed to a variety of schoolwide strategies such as students being able to change classes for math, summer math homework, Math Minute drills in class and challenging students with work above their grade level.
- Both national and local voices point to the critical role that teachers play in student achievement. “The bottom line is what we’re asking is for students to be taught well,” said one focus group participant. Unfortunately, many elementary teachers do not have strong math backgrounds. In short, they can’t teach what they don’t know. The national panel called for more pre-service, mentoring and ongoing professional training in math.

Recommendations:

1. CMS should make concerted efforts to create a “math culture” that elevates math literacy into a priority issue both in schools and in the community.

Our research showed that CMS has a number of resources to help students learn math. These resources include the Elementary Math Collaborative, which examines best practices from throughout the United States. CMS should highlight and continue to implement intensive strategies to strengthen our children’s math skills. In addition parents should be made aware of the many teaching opportunities they have for increasing their own children’s math awareness through such options as Parent University, school workshops for parents, parent conferences etc.

2. The automatic (quick and effortless) recall of math facts should be considered equally important to conceptual understanding and problem solving.

We understand that the state sets the math curriculum and that it is CMS’s job to deliver that curriculum to the students. “School dependent” children may need a much more intensive approach than those who come to school imbued with a “math culture.” The

⁶ Detailed observations are provided in Appendix A.

⁷ National Mathematics Advisory Panel. *Foundations for Success: The Final Report of the National Mathematics Advisory Panel*. U.S. Department of Education, Washington, DC, 2008

curriculum should be flexible enough to serve a wide range of children. This involves selecting math books—particularly at the elementary level—and supplements that address key math standards in which math fluency is balanced with conceptual understanding and problem solving. The use—or overuse—of calculators also should be monitored at the elementary level.

3. All FOCUS elementary schools should have full-time math facilitators. In addition, CMS should require elementary teachers to attend its math professional development workshops.

Teacher training is generally recognized as critical to student success but many elementary teachers do not specialize in or feel personally comfortable with math. Teachers must have formal and informal access to hands-on, ongoing training, as well as math mentoring implemented on a schoolwide basis by math facilitators. CMS does provide math workshops for its elementary teachers, but they currently are not required to attend. We recognize that demands upon teachers are many, but we feel that it is imperative that teachers take advantage of math professional development.

06-07 & 07-08 MATH EOG FAILURE RATES (ELEMENTARY SCHOOLS)

SCHOOL	06-07	07-08	SCHOOL	06-07	07-08
Thomasboro*	68.7%	66.2%	Morehead	33%	25.3%
Briarwood*	65.7%	55.6%	Nations Ford*	32.8%	26.1%
Walter G. Byers*	61.7%	70.2%	Tuckaseegee*	32.8%	31%
Allenbrook*	61.5%	46.5%	Reedy Creek	32.7%	34%
Druid Hills*	58.2%	60.7%	Cotswold	31.3%	32.1%
Hickory Grove*	55.3%	57.2%	Idlewild*	31.1%	31%
Westerly Hills*	53.3%	58.6%	Highland Mills	30.1%	36.6%
Billingsville*	53.2%	56.1%	Mallard Creek	30.5%	32%
Hornets Nest*	52%	47.7%	Smithfield	30.5%	27.2%
Reid Park*	51.8%	69.5%	Blythe	30%	30%
Rama Road*	51.3%	39.5%	Winget Park	29.2%	23%
Dilworth	50.8%	44.1%	Greenway Park	28%	26.4%
Devonshire*	49.3%	50.7%	Montclair*	27.8%	34.9%
Oakdale*	49%	40.7%	Pinewood*	26.9%	32.2%
Lincoln Heights*	48%	49.2%	Crown Point	26%	25%
J.H. Gunn*	47.4%	45.2%	Long Creek	25.6%	22.4%
Shamrock Gardens*	47.1%	32.8%	Pineville	23.9%	18.2%
Paw Creek	47.1%	44.1%	Lake Wylie	23.9%	25.6%
Nathaniel Alexander*	47%	50.1%	Park Road Mont.	23.4%	12.9%
Ashley Park*	46.8%	66.4%	Eastover	23.2%	26.2%
Sterling*	46.2%	47.8%	Clear Creek	22.4%	16%
Bruns Avenue*	46%	56.2%	Mountain Island	21%	24.6%
Huntingtowne Farms*	44.7%	36.3%	Lansdowne	19.9%	19.5%
Albermarle Road*	44.6%	42.1%	Elizabeth Trad.	17.3%	18%
Newell*	41.4%	43.1%	J.V. Washam	15.5%	14.3%
Irwin Avenue*	40.9%	46.2%	Myers Park	15.2%	20.5%
Oakhurst	40.8%	37.7%	Bain	14.4%	8.6%
Oaklawn	40.4%	32.1%	Beverly Woods	13.3%	14.5%
Hidden Valley*	40.4%	34.9%	Torrence Creek	12.8%	6.7%
Joseph Grier*	39.1%	33.2%	McAlpine	11.8%	17%
Steele Creek	38.9%	29.2%	Collingswood	11.2%	8.6%
First Ward*	38.6%	47.4%	Cornelius	10.9%	14.8%
Piney Grove*	38.4%	36.6%	Sharon	10.6%	9.1%

Barringer*	38%	38.3%	Matthews	10.4%	8.2%
Windsor Park*	37.9%	43.6%	Olde Providence	9.7%	10.3%
Berryhill*	37.6%	33.5%	Davidson	8.7%	6.4%
Winding Springs	37.6%	36.1%	McKee Road	8.4%	7.6%
University Meadows	37.1%	38.4%	Selwyn	8%	10.1%
Statesville Road*	36.9%	37%	Endhaven	7.4%	9.9%
Lebanon Road	36.2%	38.3%	Hawk Ridge	6%	8%
Winterfield*	36%	47.2%	Villa Heights	5.5%	3.4%
Highland Ren.*	35.5%	41.6%	Elizabeth Lane	3.7%	5.8%
Merry Oaks*	35%	47.4%	Huntersville	3.6%	5.2%
University Park*	34.9%	41.8%	Providence Springs	2.8%	2%
Pawtucket*	33.2%	43.7%			
Sedgefield*	33%	35.7%	*08-09 FOCUS School		

III. Talent Development

The committee reviewed selected aspects of the Talent Development program through interviews with TD teachers and leadership staff. The following is a general overview of concerns and observations that we hope underscore the importance of including high-performing students in the equity equation.

Concerns and Observations:

- The major focus of a school’s goals under NCLB necessarily is attaining student proficiency—reaching grade level. Since the TD students are usually already proficient, there are concerns that at some schools too little attention is focused on the needs of these children for higher-level coursework and continued growth. CMS staff has not analyzed the growth data of TD students. The Equity Committee would encourage them to do so.
- The North Carolina Standard course of study does not include a gifted curriculum. Therefore each individual school system develops its own TD standards and program. This has raised the concern of some about the rigor of the TD program offered. According to staff, CMS uses a distinct language arts curriculum in its TD magnet classrooms. Special Math and problem solving materials are also available to gifted students. Staff has begun a district-wide training to raise the academic challenge for gifted students. The Equity Committee looks forward to seeing the results of that effort.
- CMS provides gifted services in several ways: self-contained TD magnet classrooms, homogenous TD classrooms in non-magnet schools with large numbers of identified students, and through its Catalyst program. The new Freedom and Flexibility program gives principals considerable latitude in how TD services are provided in their school. For example, the principal can decide if gifted students will be homogeneously or heterogeneously grouped. The variety of methods for delivery TD services raises concerns about the consistency of TD services across schools.

IV. Other Equity Committee Observations

Throughout 2008, the Equity Committee did make several observations in its meetings, some of which are shared below. The intention of sharing these observations is to provide awareness of equity concerns without going into specific details of Committee discussions. Equity observations in no particular order include:

- Over the years the Committee has raised many equity concerns. We continue to be concerned at the lack of attention the Board of Education has given to annual equity reports in the past and hope the Board will seriously utilize this year's report to seek information and find options for addressing pressing equity concerns.
- We remain concerned that CMS's efforts to provide tools as a component of equitable instruction remain hampered by inconsistent use of the materials that are funded and distributed across the district.
- We have had several discussions about the importance of measuring equity as both a factor of inputs and outcomes. One concern we have briefly addressed is the new Freedom and Flexibility program and how it could effectively eliminate the ability to measure equitable inputs (because of the freedom to choose unique approaches at each school). This would leave our district with outcomes such as achievement as our only measure of equity. It leaves little chance to assess winning formulas for establishing equity.

V. Acknowledgements

The Equity Committee would like to express gratitude for the support and cooperation we've experienced from so many including the Board of Education and the Office of the Superintendent. Special thanks must be extended to Jose Hernandez-Paris, the CMS Diversity Specialist and staff liaison to the Equity Committee, for his unfailing support and dedication. We also want to recognize several CMS leaders who gave so much time and thoughtful assistance including Tyler Ream, Barb Pellin, and Ann Clark. Finally, we extend our sincere appreciation for the dedication of Rev. Tom Tate, School Board liaison to the Equity Committee.

THE CMS EQUITY COMMITTEE

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APPENDIX A: Math Literacy Detailed Observations

CMS students, according to some CMS experts who were interviewed, are “school dependent” for much of their basic educational and social needs. Both parents and teachers described children who came to school with little or no knowledge of basic math concepts. These are the children who are dependent on schools and their teachers for developing “math fluency” and who have the most math challenges.

“They haven’t been taught,” commented a retired assistant principal who tutors. “They need to know the math facts. There are gaps. If they know the facts, children would perform better on tests when they have the basic things they need.” Another retired principal who tutors said she sees children stumbling over basic facts and counting on their fingers. “One of the things the children will say is ‘do you have a calculator in your pocketbook?’ “

A high school math teacher said the emphasis should be on elementary schools. “Some days I feel like I’m wasting my time. I think they have become so frustrated, they’ve given up. Honestly, because they’re not getting the skills in the younger grades.”

These views are heard nationally. The National Mathematics Advisory Board found that teachers most often pointed to the need for a greater focus on proficiency in basic mathematical concepts and skills at the elementary level.

On the other end of the spectrum, a CMS teacher noted that we should be just as concerned that students don’t understand underlying math concepts. “The question is rote memory versus putting it in context,” he said. “Very often the child has not learned the concept. He hasn’t learned to de-construct what the concept is trying to do. He’s being taught to solve the problem but not the concept.”

That view was voiced by a CMS math specialist who demonstrated to the full committee a hands-on exercise showing how teachers can help children understand the “grouping” math concept.

Both views were embraced by the head of a local remedial tutoring program who said what some see as memorization of facts is actually internalization of concepts.

While the national panel found no high-quality research supporting math coaches/facilitators, CMS has used this approach extensively in reading and, to some degree, in math. In our findings, local parents and educators placed a high premium on strengthening teacher capacity. “We should use systems that work for teachers,” said one. Another called for more master math teachers. “Pay them to mentor in math.” Another parent stated, “When they have reading specialists, they should have math specialists.”

Parent involvement was another key factor heard during our meetings. A former teacher and stay-at-home parent said she has spent many nights online trying to figure out how to solve math problems only to be confronted by her child saying “well, that’s not what my

teacher told me.” Another former teacher/parent advocate who currently tutors said she wonders how parents can help when students often don’t bring home their textbooks and the work sheets don’t provide explanations.

Three stay-at-home mothers discussed working with their children regularly during the summer and after school to help their math skills. “I think they need a lot of practice,” one mother said. Another said they have family homework. Participants at both focus groups spoke of the need for different strategies for advanced and gifted children.

Parents from a high-scoring elementary school pointed to a variety of schoolwide strategies such as students being able to change classes for math, summer math homework, Math Minute drills in class and challenging students with work above their grade level.

Both focus sites also talked about the need for high expectations with one parent saying: “We don’t let the children think math is hard or undo-able.” They suggested parent information nights to provide parents with math techniques, getting parents to stress the importance of math early and making materials easily available so that parents can see what their children are learning. Other suggestions included student mentoring, small-group tutoring sessions and smaller class sizes.

APPENDIX B: School Tour Summaries

School Name: South Mecklenburg High

Date of Visit: September 26, 2008

Facilities (Brick and Mortar)

Needs:

--There was evidence of a patchwork system of renovations that left noticeable gaps in facility upgrades to the 49-year-old structure. On the day of the Equity Committee's visit during a hard rain, we witnessed students jumping over large puddles of water stretched across sidewalks in nearly every area of campus. In other areas, students had to walk in the rain due to the lack of overhead covering to reach their next class.

--Buildings B, D & F have had minor renovations over the years at different stages. As a result, lighting and ceiling packages don't match. For example, some buildings are very dark while others are noticeably lighter. Ceiling heights ranged from high and airy to low. Locker sizes also vary.

--Although undergoing renovation, the Science Building was clearly outdated in terms of built-in equipment and with sloping floors. One classroom had a closet that opened onto a dirt floor.

-- The school has experienced major problems with insects.

-- While the administration building presented a bright and inviting atmosphere, that did not appear to be reflective of the entire school. Storage issues also appeared to be a problem in the administrative wing.

-- Other needs included a larger lunch room, air conditioning for the gym/athletic facilities and bathroom renovation.

Technology Systems

The school experiences power surges that affect computer usage, as well as blown circuits in the Math and Social Studies Building. While the vocational studies program has state-of-the art computer equipment, due to governmental regulations those computers cannot be switched or used in other studies. Concern was expressed about the need for a computer technology position due to the school's growing use of computers, Smart Boards, etc.

Library Books and Media Services

The school's Media Center is run by one person and volunteers. Last school year, the school documented 9,342 visits during the year. The media specialist is often unable to eat lunch because of heavy usage during lunch.

Instructional Programs/Course Offerings

The school is part of a consortium that includes Quail Hollow, Community House Middle, Carmel Middle, Smith Middle and South Charlotte Middle. This has resulted in administrative and staff cross-visits, as well as cooperative meetings on curriculum.

The school has witnessed a drop in the writing test failure rates in the past two years from 30% to 19%. It also has experienced increases of more than 10 points in Geometry and Algebra I in particular, with strong showings in English and Biology. The lowest scores have been recorded in Physical Science attributed largely to a new test.

The school has found that the 4x4 scheduling system affects students who come with marginal mastery of math and “lose ground” when they have to wait until the next school year to take another math class. It would be preferable for most students to take math all year long, some with double blocks, in recognition that some students need more time.

How well are the needs of ESL/LEP students being met?

A counselor has been assigned to ESL/LEP students

Needs: Outreach to all demographics is needed.

Textbooks and Instructional Materials

The school experienced a major delay in receipt of social studies books this school year. The full shipment did not arrive until after Labor Day.

Faculty/Administration

Teacher Retention:

The school has experienced a number of retirements and staff changes. In the math department, only three teachers have been there more than three years. However, this was not considered a major issue based on the stated need for “a mix of seasoned versus new teachers.”

Teacher Recruitment/Reason for Choosing School :

With years of experience in CMS, the principal was able to fully utilize the CMS recruitment system to hire new and experienced teachers from her former assignments.

Teaching Environment: Currently building Department Leadership Teams.

Parental/Community Involvement

SLT/PTA Demographics:

Currently seeking to build up the SLT.

General Narrative/Other Observations:

Of the school’s 1,774 students, demographics were 56.7% white, 21.2% African American, 16.9% Hispanic, 4.2% Asian and 1.5% multi-racial or Native American, representing 37 countries and 24 languages. While language barriers appear to be an issue at the parental level and call for added staffing measures such as counselors, the diverse student body appears to function well as a group. Students were very vocal in their support of the school.

Academic and teacher assignment appear on target, but the biggest need appears to be in the area of facilities. While the school currently has renovation projects, the entire structure appears in need of a major overhaul.

School Name: _Bruns Avenue Elementary
Date of Visit: October 23, 2008

School Profile
Facilities (Brick and Mortar)

Needs:

School appears to be in good physical condition. Current playground is usable, but they are hoping for new equipment to improve the overall usability.

Technology Systems

The following are part of the items considered under this category: Instructional Computers, Administrative Computers; Data Cabling.

(Ratios; printers; High Speed Internet, etc...):

The school has invested nearly \$70,000 of Federal Title I funds in the purchase of new computers, software and advanced interactive “Smartboards” that will be seen integrated into the daily instructional program. In addition, during the summer of 2008 the entire campus gained wireless access to the internet.

Needs:

None indicated

Audio-Visual Equipment

This area relates to the amount of Audio-Visual equipment in each school available in media centers and to classroom teachers.

Needs:

None indicated.

Library Books and Media Services

Needs:

None indicated

Instructional Programs/Course Offerings

How well are the needs of ESL/LEP students being met?

Full time ESL teacher, 10% ESL population

Needs:

None indicated

Co-curricular Activities

Co-curricular Activities was established to create a comprehensive co-curricular program that provides access to all students. This program is designed to establish a natural extension of the school day that would focus on acceleration and academic achievement.

Extracurricular/Afterschool Programs:

GEP (Greater Enrichment Program) provides after school care and tutoring for about 200 students. Parks and Rec has an onsite gym and programs.

Textbooks and Instructional Materials

Material Standards are established for the majority of academic courses and electives in the district. These standards are used as a baseline for determining appropriate resources.

Needs:

Principal did not indicate lack of textbooks or instructional materials

EC Instructional

The Exceptional Children Instructional Materials Baseline Standard proposes that each EC teacher has appropriate materials to facilitate instruction.

2.5 full time EC teachers

Needs: _____

Faculty/Administration

The standards of expertise in a school faculty are: clear licensure, advanced degrees, percentage new teachers; average experience; National Board Certification and percentage of teachers in their fifth year of experience or beyond. The Equity Committee added a few additional areas to examine under this topic (i.e. Reason for Choosing School, Teaching Environment...)

Teacher Retention:

Majority of teachers returned from last year. There is one first year teacher and 7 second year teachers out of 28 classroom teachers. The majority of teachers have 5 to 10 years of experience.

Teacher Recruitment/Reason for Choosing School :

4 teachers joined staff through strategic staffing initiative

Teaching Environment:

New principal promotes very positive teaching environment

Materials/Supplies :

School is well supplied through Title I funds.

Discretionary Funds :

The partnership with AT&T through Community in Schools has supplies funding, volunteers, and material support for both students and teachers.

Needs:

Principal could list no needs.

Teacher/Student Ratios & Staffing Standards

Base Standards have been developed to determine the minimum number of classroom teachers allocated to each school. However, CMS has a differentiated staffing approach to allow additional teachers to be allocated to schools with high populations of low socio-economic backgrounds.

Student per Teacher ratio:

Classroom teacher to student ratio is on average between 17 and 18 students per teacher. The faculty also includes 2 literacy facilitators, a math facilitator, behavior management techs, a full time psychologist, full time ESL teacher, part time TD teacher, a media specialist and assistant, PE teacher, art teacher, music teacher, and a technology specialist.

Parental/Community Involvement

PTA Participation/Budget:

PTA participation had been very low. However, new principal was offering donated Bobcat tickets to anyone who joined the PTA at the upcoming meeting. We later heard that PTA participation had strongly increased.

LT/PTA Demographics :

Many of the children are being raised by grandparents. School population is very transient.

Partners/Volunteers:

Partnership with AT&T through Communities in Schools. According to the principal, the partnership with AT&T through Community in Schools has supplied vastly increased funding, volunteers, and material support for both students and teachers.

Parent Advocate (what type) :

Full time parent advocate, full time Child's Place representative, full time social worker
Overall Student Success

Test Scores/EOG :

Math 43.8% proficient, Reading 18.8% proficient

Additional Student Programs: Talent Development Programs:

10 identified students, TD teacher available Thursdays and Fridays

General Narrative/Other Observations:

When current principal Steve Hall arrived at Bruns this past summer under the strategic staffing initiative, he found the school in disarray. There had been little staff development, supplies and equipment had gone unused, and staff moral was low. This year, according to Principal Hall, under Strategic Staffing Bruns has been provided with "an influx of hand-picked experienced, successful teachers and leadership to supplement its already talented staff".

He is now enthusiastically engaging that staff in intensive staff development programs. He and his staff are working to involve families through innovative PTA events, and the school is enjoying valuable volunteer support through its partnership with AT&T in conjunction with Community in Schools. In addition, as noted under Technology, the school has invested nearly \$70,000 of its Federal Title I funds in the purchase of new computers, software and advanced interactive "Smartboards" that will be seen integrated into the daily instructional program. During the summer of 2008 the entire campus gained wireless access to the internet. According to the school's webpage "technology will be used extensively to support reading and math instruction through the acquisition of an innovative on-line program called "Prescriptive Instruction". This program can be accessed anywhere a parent can find an internet connection ...be it at home, at the public library, or elsewhere. It offers personally designed reading and math instruction for every 3rd, 4th, and 5th grade Bruns student."

Test scores have been very low at Bruns and Principal Hall says the school has long been "underperforming. He expects to see growth with the changes he and his staff have implemented.

It should be noted that Mr. Hall was very positive about CMS's support for its Focus schools. He said that he had no problems obtaining whatever supplies and equipment he requested. The school itself appeared to be very well maintained and equipped.

School Name: Pinewood Elementary

Date of Visit: October 30, 2008

Facilities (Brick and Mortar)

Please Describe...

Needs:

- Accessible bathroom/shower room not near SAC classrooms. The noise of diaper changing, etc. disturbs adjacent 5th grade classroom.
- Playground equipment lacks adequate mulch for safe use.
- School lacks adequate playing fields.
- Newer playground equipment installed at old school inaccessible. Students must cross parking area to access. Staff doesn't have walkie-talkies that can function reliably from the old playground.

Technology Systems

The following are part of the items considered under this category: Instructional Computers, Administrative Computers; Data Cabling.

Staff reported a compatibility problem between administrative and staff computers. Admin. computers use Word, while staff computers use Works. We reported this concern to Tyler Ream to see if this problem could be solved. Tyler contacted the technology department. There is a process to convert Work documents to Word. However, we are not sure if this will resolve the issue.

Audio-Visual Equipment

This area relates to the amount of Audio-Visual equipment in each school available in media centers and to classroom teachers.

The school has used Title I funds to purchase interactive white boards. Pinewood has 17 interactive white boards – two per grade level. The one “portable” white board in the school cannot be easily be used because it must be recalibrated before each use. They are hoping to mount it permanently to make it usable.

Library Books and Media Services

Instructional Programs/Course Offerings

How well are the needs of ESL/LEP students being met?

Pinewood has a large Latino population – 43% of those, 30% are ESL. Pinewood has two ESL teachers.

Needs:

Full-time bi-lingual parent advocate and social worker. Face challenge of working with parents fearful because of their document status.

Co-curricular Activities

Co-curricular Activities was established to create a comprehensive co-curricular program that

Extracurricular/Afterschool Programs:

Pinewood is starting O-Ambassadors, Math Olympiad, and an OM Team. Afterschool transportation is big problem.

Needs:

Afterschool tutoring with transportation.

Textbooks and Instructional Materials

Material Standards are established for the majority of academic courses and electives in the district. These standards are used as a baseline for determining appropriate resources.

Arts/Music Programs:

Pinewood has had a loaner set of Orff Instruments that they will be sad to loose this year. Orff Instruments are percussion (xylophone style) instruments.

Science :

Math :

Pinewood used Title I funds to hire a full-time math facilitator. They are enthusiastic about implementing the Investigations curriculum in 2008-08.

Language:

Needs:

Funds to purchase Orff Instruments.

Staff expressed the need to increase the quality of programs offered at Pinewood.

EC Instructional

The Exceptional Children Instructional Materials Baseline Standard proposes that each EC teacher has appropriate materials to facilitate instruction.

Needs:

Pinewood has three new SAC classes in 2008-09. Pinewood's part-time nurse position needs to be made full-time. The school needs high quality walkie-talkies for emergency communication.

Faculty/Administration

The standards of expertise in a school faculty are: clear licensure, advanced degrees, percentage new teachers; average experience; National Board Certification and percentage of teachers in their fifth

year of experience or beyond. The Equity Committee added a few additional areas to examine under this topic (i.e. Reason for Choosing School, Teaching Environment...)

Teacher Retention:

Pinewood lost 5 strong staff members as a result of the Strategic Staffing Initiative. This year, Pinewood has a new first-year principal and assistant principal.

Teacher Recruitment/Reason for Choosing School :

About 14 teachers were **assigned** to Pinewood by HR for the 2008-09 school year. The principal was not able to hire staff to build a team. Pinewood has two Teach for America teachers.

Teaching Environment:

Pinewood would like to have quarterly planning days. They need substitute teachers.

How does faculty demographics (Gender, ethnic background), compare to student demographics. Is it representative?

Demographics are not representative. School has large Spanish speaking population and few Spanish speaking staff.

Materials/Supplies:

School needs basic supplies – construction paper, toner, etc. Teachers are spending their own money on supplies since there are not discretionary (PTA) funds.

Teacher/Student Ratios & Staffing Standards

Base Standards have been developed to determine the minimum number of classroom teachers allocated to each school. However, CMS has a differentiated staffing approach to allow additional teachers to be allocated to schools with high populations of low socio-economic backgrounds.

Parental/Community Involvement

PTA Participation/Budget:

Handful of PTA parents. No budget.

Partners/Volunteers:

Partnership with Sharon United Methodist – 80 volunteers.

Partnership with Sharon Elementary – donate clothing, serve as pen-pals.

Parent Advocate (what type) :

Half –time

Needs:

Full-time parent advocate, social worker and nurse.

Additional Student Programs: Talent Development Programs:

Pinewood has a very small number of TD identified students - 8. TD teacher comes to the school 2 days/week for pull-out lessons.

General Narrative/Other Observations:

Pinewood is under the first year of sanctions under NCLB. The school faces the challenge of a highly transient, low income student population without sufficient “wrap-around” services—social worker, nurse, Communities in Schools, etc.

**KIPP Academy -- Knowledge Is Power Program Report
Charter School Opened Fall 2007 in Charlotte
Date of visit October 7, 2008**

What makes KIPP successful?

Parental Buy-In- Students do not have transportation provided. Parents need to bring students to school and pick up after school.

Student Buy In- The students in KIPP want to be there.

Teacher Buy-In- Teachers work long ours and are paid about 20% more than CMS teachers.

Charlotte KIPP began in Fall of 2007 with 90 fifth grade students. These students are now sixth graders with a whole new group of fifth graders were getting started. A new grade will be added each year until they have grades 5-12.

The population at KIPP on the day of our visit was 99% minority students, mostly African American but there were a few Hispanics.

Seventy percent of KIPP's students are on Free or Reduced lunch.

There are currently 25 EC students and a total of 10 instructors.

The KIPP budget per student is the same as CMS but their allocation is different because they need to pay for their own facilities. The balance goes to staff and other expenses on their operating budget.

KIPP does not provide text books and there were no computers available for use by the students.

On the day of our visit we were greeted by all students and staff and we were asked to introduce ourselves. They asked for our names and the name of the college that we graduated from. KIPP students have a goal and that goal is college, "KIPP is a national network of free, open-enrollment, college-preparatory public schools with a track record of preparing students in underserved communities for success in college and in life."

KIPP students are in school from 8am to 5 pm on most days. Students also attend school during the summer and two Saturdays a month.

The Equity Committee members that visited the KIPP academy were impressed with the focus that these students showed on their education but it may not be practical to offer this throughout CMS.