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ABSTRACT

This paper describes the method that the Minneapolis Public School system (MPS), Minnesota, uses to measure school and student performance. MPS uses a multifaceted system that both captures and accounts for the complexity of a large urban school district. The system incorporates: (1) a hybrid model of critical indicators that report on level of performance, cross-cohort changes, growth or gain scores, and value-added measures; (2) specific standards, set in a collaborative manner by stakeholders and then aligned with MPS criteria and real-world consequences; and (3) a cycle of continuous school improvement planning. The system is an example of how value-added indicators can be, and should be, included in any fair accountability model designed to evaluate the effectiveness of schools. The expanded growth model addresses the differential balance of student characteristics across MPS schools. Evaluating the overall performance of schools based on a set of indicators allows the MPS to evaluate the effectiveness of the school district in meeting the needs of all its students. Continuous school improvement is based on detailed information reports provided to all school sites, the "School Information Reports." These documents set the stage for site-based analysis and planning. Appendixes contain a chart of the quality performance indicators, the MPS quality performance rubric, a graph displaying quality performance points, and a chart describing the school improvement planning cycle. (Contains 6 figures, 2 tables, and 23 references.) (SLD)

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**Measuring school performance to improve student achievement:
And to reward effective programs**

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Abstract

This paper presents the Minneapolis Public School's (MPS) method of measuring school and student performance. MPS employs a multi-faceted system that both captures and accounts for the complexity inherent in a large urban school district. This system incorporates: (a) a hybrid model of critical indicators that report on level of performance, cross-cohort changes, growth or gain scores, and value-added measures; (b) specific standards, set in a collaborative manner by key stakeholders, and standards were then aligned with MPS criteria and real-world consequences; and (c) a cycle of continuous School Improvement Planning.

The MPS hybrid model includes a set of pre-agreed upon, pre-selected indicators that were established in concert with stakeholders who are internal and external to the Minneapolis Public Schools. Moreover, this paper provides a practical application of how value-added indicators can be and should be included in any fair accountability model designed to evaluate the effectiveness of schools. The expanded growth model, referred to as value-added, addresses the differential balance of student characteristics across MPS schools such as: poverty, race, family composition, special education status, Limited English status, and neighborhood poverty concentration. The value-added approach described here is the backbone of setting up a flexible, yet equitable measurement system that can account for important student characteristics (associated with student achievement) and assist in determining the extent to which teachers and schools "add value" to student performance.

Evaluating the overall performance of schools based upon a set of indicators allows the Minneapolis Public School's system to evaluate the district's effectiveness in meeting the needs of all its students. Moreover, the overall framework allows the district to place schools along a continuum that relies on both rewards and sanctions. In fact, by using the described framework schools can "earn financial rewards" called Quality Performance Awards to maintain and expand upon their excellent performance. Additionally, in extreme cases schools can be identified that "need prescriptive, corrective action," which may include the option of school reconstitution through the district's "fresh start" provisions of the teacher and principal contracts.

Finally, a complete School Improvement Planning cycle is discussed. Continuous school improvement is based on detailed information reports provided to all school sites titled, "School Information Reports." These documents set the stage for important site-based analysis and planning to occur. Samples of these yearly documents are available via the world-wide-web at: <http://www.mpls.k12.mn.us/REA> (click on School Information Reports). Hopefully, this paper will be useful to practitioners, administrators or researchers interested in identifying and combining school performance indicators to make high stakes accountability decisions for school districts.

Measuring school performance to improve student achievement

In order for a school incentive program to be effective, that is, to have motivational impact on schools which results in improved student learning, it must be perceived as fair and worthwhile, and it's criteria must be understandable and readily communicated. (John May, in Manedeville, 1994).

Evaluating School Performance.

No matter where you turn, you cannot escape the pervasive discussions, debates, and hyperbole that surround the topic of evaluating student outcomes. Further, attempting to understand the role schools and districts play in accelerating or decelerating student performance can be daunting. Although evaluating school and district performance is a given in today's educational environment, there are still varying perspectives on how to best meet the challenge (Millman & Schalock, 1997). In fact, an elaborate array of state-wide and district-wide models have been proposed. These evaluation models are often put in place under the guise of addressing such things as: (a) Accountability; (b) Communicating performance to key stakeholder including the community at large; (c) Effecting change for poor performing sites or creating the impetus for self-study and self-improvement among all schools; and increasingly to (d) Identify innovative and powerful programs so that they may be replicated and shared with sites that are performing well below expectations, as well as to reward high-performing schools.

It should come as no surprise that a multitude of systems have been developed to evaluate school effectiveness. Many state and local models rely on reporting level indicators of student test performance (e.g., SAT or ACT scores, or some other mean score). However, as it will be discussed later, these are imperfect methods for determining the inherent value or effectiveness of instructional programming within schools. Recent developments have pushed the frontier toward more sophisticated statistical analyses to help get the answer "right" when trying to attribute school effects v. non-school effects on student performance (Meyer, 1996). The need for more sophisticated analyses has arisen out of the need to account for the complex set of interactions that occur between students who enroll in programs and school and district ability to meet the needs of those students. To this end, more systems are relying on educational outcome indicators to assess the efficacy of educational programming (Meyer, 1996). Thus, student outcomes or student performance on clearly identified indicators have become the primary method for evaluating and holding schools and school systems accountable.

Criteria for performance indicators and accountability systems.

Meyer (1996) identified three critical criteria for evaluating the usefulness of performance indicators. First, school performance indicators that are included in any accountability system must assess the types of skills demanded by society. In the state of Minnesota there are some clear benchmarks all students must meet. In 1996 the state of Minnesota implemented a series of graduation requirements that

have been implemented incrementally within the state. For example, beginning with the graduating class of 2000, students must pass Basic Skills Tests (MBST) in the areas of reading and math. For the class of 2001 and beyond, students must pass MBSTs in the areas of reading, math and writing. Students must reach a passing score in order to be eligible to receive a high school diploma. In addition, the state has put in place a series of high standard tests referred to as the Minnesota Comprehensive Assessment (MCA) at grades 3, 5, 10, and 11¹. These tests cover high-end content and knowledge in the areas of reading, math, and writing. This two-tiered system provides clearly defined outcome measures that have allowed the MPS to align curricula and district assessments to plot student performance and trajectories toward basic and high standard criteria.

The second characteristic of a quality school performance indicator is its ability to accurately measure performance with respect to the outcome it purports to measure (Meyer, 1996). That is, the indicators that are selected must meet a standard in which they cannot be “corrupted.” Thus, the instruments must be valid and reliable for the purpose for which they are selected. The administration of such instruments must occur following rigorous standardized procedures. Meyer (1996) describes additional concerns about the ability to corrupt an accountability system. For example, when level performance indicators are used alone, there may be a disincentive for districts to include students at the lower margins (e.g., special education and ESL students) to avoid “lowering” the overall mean test scores. Obviously this behavior is unethical and creates a system in which some students become “invisible” within the district, resulting in no accountability for their performance. In effect, districts could become disingenuous in setting policies and begin to test only “higher performing” students so as to corrupt student performance reports. Additional policies, such as retention of students at specific grade levels can further distort level performance, as students remain at the same grade-level for a second year and are compared to norm groups based on grade. Collateral damage also can occur as teachers then begin to bid out of “low-level” and into “high level” schools. Finally, very few if any of these level models account for the high correlation of post-test performance based on pre-test performance. Indeed, few systems collect student achievement on a yearly basis to compare actual improvement across time.

Finally, over and above the “corruptible” concern, performance indicators selected must measure the unique contribution schools “add” for each measured outcome. Although many systems rely on average test score performance to rank order or evaluate school performance, mean scores are highly flawed indices of school effectiveness (Meyer, 1994). Despite the flawed nature of equating school performance with point-in-time mean performance, many districts, newspapers, real estate brokers, and families resort to evaluating or making judgements about school effectiveness based on level data.

¹ The state of Minnesota currently has high standard MCA tests at 3, 5, and 10 and will be adding two additional MCA tests in reading (grade 10) and math (grade 11) during the 2000-2001 school year.

For example, take two schools -- School A and School B -- that currently report overall student performance at the 80th percentile (a high performing school). Despite its seductive, simplistic approach, level indicators do not provide adequate information on how a student, school, or district reached such a level of performance. In this example there is no way to account for how these students or schools were performing the previous year, nor is there any accounting of whether student performance has stagnated, accelerated or decelerated to reach this reported level. These are critical aspects that must be addressed in any accountability system. This incomplete view of performance can result in poor decision making at best and all but ensures that school districts will draw false conclusions when trying to determine the effectiveness of school policies on student outcomes (Meyer, 1996).

In addition to the critical criteria for performance indices, Meyer lists four critical deficiencies of accountability systems that rely on reporting only mean test score performance. First, mean test performance is contaminated by factors other than school performance or influence (e.g., student characteristics, family, and community factors). Second, reporting mean performance aggregates information that is out of date and does not address the cumulative, compounding effect of the previous years of instruction. Since reporting mean performance includes all of the students' previous learning experiences, the latest test score actually reflects a summary of a student's achievement to date. The older the student, the more previous instructional efforts account for the student's current level of performance. Third, the mean level of performance is contaminated by student mobility that includes natural breaks in an educational cycle (i.e., elementary, middle, and high school) but also movement between schools depending on the size of the district and city. Fourth, reporting mean performance on a school basis interferes with the ability to localize performance to a grade or classroom level.

What can be done?

Given the well-articulated caveats of an accountability system that relies on mean or median test scores, one must ask: What can be done? Fortunately, Meyer (1995) and others (Sanders, Saxton, & Horn, 1997) have proposed using what are now referred to as student gain scores, where achievement scores for each student are compared to previous year performance. Thus, each child serves as his or her own control (Sanders, Saxton, & Horn, 1997). Meyer posits that growth indicators are good, but an even better model is an extension of the growth model referred to as value-added methodology. In essence, value-added indices are the most appropriate indicators for measuring school performance by using a statistical regression model that includes, to the degree possible, all of the known factors that influence student achievement such as student, family and community characteristics (Meyer, 1996). That is, a value-added methodology attempts to isolate statistically the unique contributions schools "add" compared to other factors related to student achievement. Thus, Meyer and others have argued that failure to account for

external sources of student achievement could result in biased or contaminated indicators of school performance.

To summarize, mean level indicators are commonly used and easily understood metrics. They provide useful descriptive information, but provide minimal and often misleading evaluative information on school performance. Thus, a strong case has been made within the accountability literature to move toward growth measures of student and school performance (Darling-Hammon, 1997; Easton, 1994, Walberg, 1997). A value-added model goes even further than growth models by including additional known variables that are empirically demonstrated to influence student performance outcomes. Accounting for these factors is critical since it is well documented that student and family characteristics account for far more of the variation in student performance than school-related variables (Meyer, 1996).

Clearly, it is imperative for school accountability systems to correctly identify programs and/or schools that “beat the odds” or “add value.” That is, it is important to empirically distinguish between programs or schools that produce results because of their efforts and instruction, not in spite of their efforts and instruction.

The Minneapolis Public Schools Model.

Any accountability system within education today struggles with balancing the simplicity of answering questions such as, “Are programs working?” and “Are desired outcomes being achieved?” with the complexity of accounting for the myriad of factors that influence educational outcomes. For the purpose of this paper, we will introduce and discuss a performance continuum model developed by and currently used in the Minneapolis Public Schools. In the MPS model we examine and report information about:

- Student level (achievement, growth, and student characteristics)
- Grade level (within district, school, and classroom)
- Program level (e.g., special education, ESL, general education, etc.).
- School-wide interventions (e.g., Success for All; Discourse; Accelerated Reader/Math) and,
- System-level (e.g., Elementary, Middle School, High School, District, Adopted curricula, etc.).

The Minneapolis Public Schools has worked extensively to build a more equitable and empirically sound reporting system to evaluate school performance. The accountability system is encapsulated within an entire performance continuum that is described next. The value-added growth model fits into the overall framework of placing schools on a continuum from “earning financial rewards” that assist in expanding or maintaining excellent performance to “needs prescriptive, corrective action.” The latter designation includes the option of school reconstitution through the district’s “fresh start” provisions of the teacher and principal contracts. The first, “earns financial rewards,” has allowed the MPS to develop Quality Performance Awards (financial rewards) that encourage schools to submit applications describing the use

of best practice coupled with the total points obtained on each of the performance indicators described later (see Appendix A).

The MPS model is a hybrid model that includes 33 indicators for elementary and middle schools and 24 indicators for high schools. Both level and growth performance indicators are used. Approximately one-third of the performance indicators are considered level indicators and two-thirds are classified as growth indicators. The level indicators report point-in-time performance and current level of performance on an array of measures. The growth indicators are sub-classified further as: cross cohort, gain, and value-added (see Table 1).

The cross cohort indicators examine change across time, albeit for different groups of students. Cross cohort measures include students enrolled at specific sites and compare, across different groups of students, the change in indicators such as the number of students passing the Minnesota Basic Skills test, change in percent of students performing at certain levels of proficiency on high standard tests (MCA), as well as changes in attendance and suspension rates. The gain indices include: percent of continuously enrolled students making nationally-normed growth, comparisons among the different racial/ethnic groups, accelerated gains at the top and bottom of the achievement distribution, and improvement on oral reading measures. Two value-added indicators examine schools that “beat the odds” based on pre-test scores and student characteristics (Grade 2 Oral reading and NALT reading and math).

The ability of MPS to incorporate value-added and gain indicators into a performance evaluation of school performance sets the MPS system apart from many other districts. Furthermore, there is an excellent literature base to suggest that value-added measures use a more equitable and sensitive analyses for examining school effectiveness. Thus value-added analyses are a more appropriate statistic for urban educational settings. By incorporating value-added measures, school districts may be better prepared to account for important non-school factors that affect student performance and uncover otherwise hidden gains. Moreover, districts are more likely to identify schools that are making gains and headed in the right direction, a finding that might be masked by a level-based system only. The MPS hybrid system is sophisticated enough to isolate particularly effective components so those programs demonstrating gains or changes in student trajectory can be clearly identified and replicated in less successful schools. Essentially, the MPS hybrid model provides a more sensitive measure to identify improved educational outcomes for high-risk students, despite the fact that those students typically exhibit characteristics often negatively correlated with achievement.

Developing a School Performance Continuum

How the system evolved.

Over the past ten years, the Minneapolis Public Schools (MPS) developed a system of data collection and interpretation that provides feedback on academic and non-academic school improvement indicators. Initial reports in the early 1990's included measures of attendance, suspensions, and average test scores for a school as a whole. During the 1992-93 school year, a committee of parents, teachers, principals, research staff and curriculum experts was convened to develop performance indicators on student achievement and indicators on five correlated school improvement areas: school mission and vision, leadership, climate, family/community involvement, and effective curriculum/instruction. Baseline data for each of the indicators was reported school by school for the first time in 1994.

In 1995 MPS comprehensive curriculum content standards and grade-level expectations for academic achievement were established. The school improvement model that evolved over the next five years was developed collaboratively with school district administration, school principal leadership, and teacher leadership. Data collection and analysis procedures (e.g., staff and student survey instruments and standardized performance assessments) were modified to meet the needs of stakeholder groups.

Standards-based Assessments.

Coinciding with these prior events, a team of district curriculum leaders, teachers and research specialists was formed to assess the alignment of the district standardized-tests with the newly written curriculum content standards. One outcome of these discussions was a recommendation to select a different model of standardized assessment. MPS selected the Northwest Evaluation Association (NWEA) bank of multiple-choice reading and math items that are pre-calibrated using a Rasch-model. Minneapolis curriculum specialists, teachers, and researcher chose items from the item-bank that best aligned with district and state curriculum standards. These items were then subject to item bias reviews. Any items that were modified from the original format were piloted and re-calibrated. Eleven tests, referred to as Northwest Achievement Levels Tests (NALT), were built in reading and 10 tests in mathematics that range in difficulty from first grade to 12th grade level material.

Using the NALT, each student is assigned to a level of math or reading test (commensurate with his or her ability) based on prior test history or a brief "locator" test. Each student then takes a math and reading tests where the student is predicted to get 50% to 60% of the items correct. Measurement error is reduced significantly over the typical on-grade level assessment where a large percentage of students take test items that are too difficult (and thus may resort to random guessing) or too easy (where students may rush through simple items and/or be bored with the test).² Only students who are severely disabled and

² There is practically no ceiling on the NALT item bank. Only a handful of students have achieved a perfect score on the highest level test. If a student does get a perfect score on one of the levels tests, they are retested at a higher level.

students with severe English language deficiencies are excluded from these tests. Mathematics test scripts are also available in seven major non-English languages. With the implementation of levels tests, in each grade from 2 through 7 and grade 9, the infrastructure for a growth model of school performance was available to the MPS.

Developing a Quality Performance Framework.

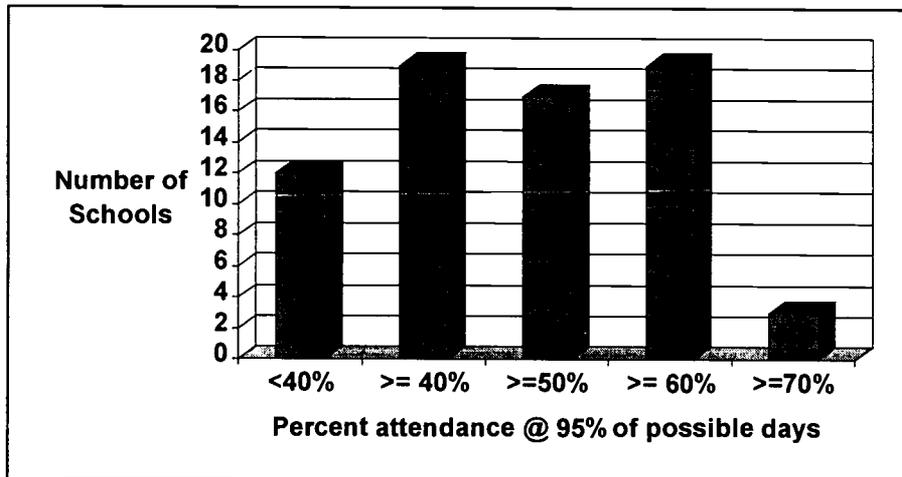
In 1997 the school improvement model was codified and reinforced with performance incentives. A key section of the principal and teacher contracts described the “school performance management continuum” (Minneapolis Public Schools, 1997) which included interventions ranging from monetary rewards to potential reconstitution of the professional staff at the building. The cornerstone of this school performance continuum was a set of indicators designed to be sensitive to growth towards high standards of student performance, school climate, professional practice, and stakeholder satisfaction.

During the 1998-99 school year a Quality Performance Design Team met frequently to determine which elements of the larger school information report should be included in the Quality Performance Awards. This design team included representation from the principal and teacher bargaining units together with District and State accountability experts. After a year of data analysis and discussion, this group proposed a set of accountability indices for review by district and community stakeholders.

In January 2000, a group of district leaders that included the Superintendent of Schools, met with representatives of: the Minneapolis Chamber of Commerce, the Minneapolis Foundation (an independent non-profit organization), the Minnesota Office of Educational Accountability, and the University of Minnesota Department of Education. The primary goal of these meetings was to reach consensus on setting evaluative standard criteria for each of the identified school performance indicators. A rubric (i.e., 1= “well-below expectations” to 5= “well-above expectations”) for each indicator was established. The standard setting process set the current expectation at a “3” (or short-term goal to be reached within the next 2 years) for all indicators. A “5” equated to well-above expectation and was seen as a long-term or stretch goal (i.e., all schools should reach this level within 5 years).

For example, the district standard for attendance at an individual student level was set at 95% of all enrolled days. In other words, a student enrolled for the entire school year may only be absent 8 days if they are to meet the standard. The short-term goal for schools was set at 50% of all students attending 95% of possible days (currently 44% of the students in Minneapolis are absent 8 days or less per year). The long-term goal was set at 70% of students attending at least 95% of possible days. The 1998-99 school year distribution of this indicator is presented in Figure 1.

Figure 1. Distribution of Student Attendance indicator for 1998-99



Standards for each of the 33 indicators used in the elementary and middle school Quality Performance Awards and 24 indicators used in the high school Quality Performance Awards can be found in Appendix A. National norms and state standards were used to set the standards for academic achievement, and discussions among committee members focused on the reasonable length of time to expect all schools to reach the standards. Other standards were established by consensus of the committee with reference to “common sense” and current baseline distributions.

Performance Awards

The Quality Performance Awards (QPA) is an important component of the District’s School Performance continuum. The QPA process allows the district to recognize schools for significant growth and performance on quality measures and award additional funds. Cash awards, known as Quality Performance Awards, were provided to Minneapolis Schools for the first time in 1996. Schools applied for the awards based on achievement growth data, attendance, advanced level course participation, and engagement in individualized staff development planning.

The purpose of the QPA process is to maintain a focus on continuous improvement efforts by school sites. The additional funds available to the district for rewards are based on a grant obtained by the district from the Minnesota Academic Excellence Foundation (MAEF) that in turn is distributed to schools demonstrating performance above the district standard on level, growth, and value-added indices.

The review process required school sites to submit applications to a district committee that included district personnel who have specialized expertise in the designated areas that schools describe within their best practice narrative (e.g., family involvement). Schools qualified for the awards based on their total point value from the 33 indicators listed in Appendix A, in conjunction with a written application submitted by the leadership team at the school. On the written application were narratives and data

documenting school innovation, behavior intervention plans, staff development plans, parent involvement and student activities. The QPA district committee scored the narratives awarding additional points following a pre-determined application format (with a 1-5 rubric, see Appendix B). Awards were determined at all levels of school configurations: elementary, middle and high schools. A graph depicting the distribution of QPA average points for the 71 elementary and middle schools appears in Appendix C.

In March of 2000, monetary awards from \$8,000 to \$24,000 were presented to 38 Minneapolis Public Schools (approximately 40% of the district schools), depending on the size of the school. The indicator framework is a work in progress, but it is also the result of an extensive collaborative process that included district principals, administrators, teachers, community members, parents, business partnerships, and various community agencies. It is expected that by placing schools along this performance continuum—comparing schools to mutually agreed upon standards for each indicator—schools will conduct self reviews to: (a) take stock of where they are in comparison to the expected standard (i.e., Do they measure up?³), (b) critique the list of indicators, and (c) evaluate the standard-setting process and how standards were codified. It is assumed that this process of internal review, as well as external review (by the community) will help validate the established criteria for evaluating school performance, which is essential for the process to be trusted, open, and embraced by all school sites and staff.

Indicators for Identifying Effective Schools

As described previously, the Minneapolis accountability system includes a variety of important educational variables. The core indicators include: (1) Student achievement level compared to state and district high performance standards; (2) Change in achievement level compared to performance standards (i.e., cross-cohort analysis); (3) Student achievement gain compared to expected national norm growth (i.e., continuous membership post test – pretest); (4) Student achievement compared to predicted levels of performance based on pretest score and student demographics (i.e., value-added analysis); (5) Student Attendance & Graduation rates; (6) School climate, including safety and respect based on student and staff survey responses; (7) Student participation in advanced coursework; and (8) Sufficient course credits by year in school for High School students.

³ Measuring up is the name of the community report card that was released to the community in February 2000 in collaboration with the Minneapolis Foundation.

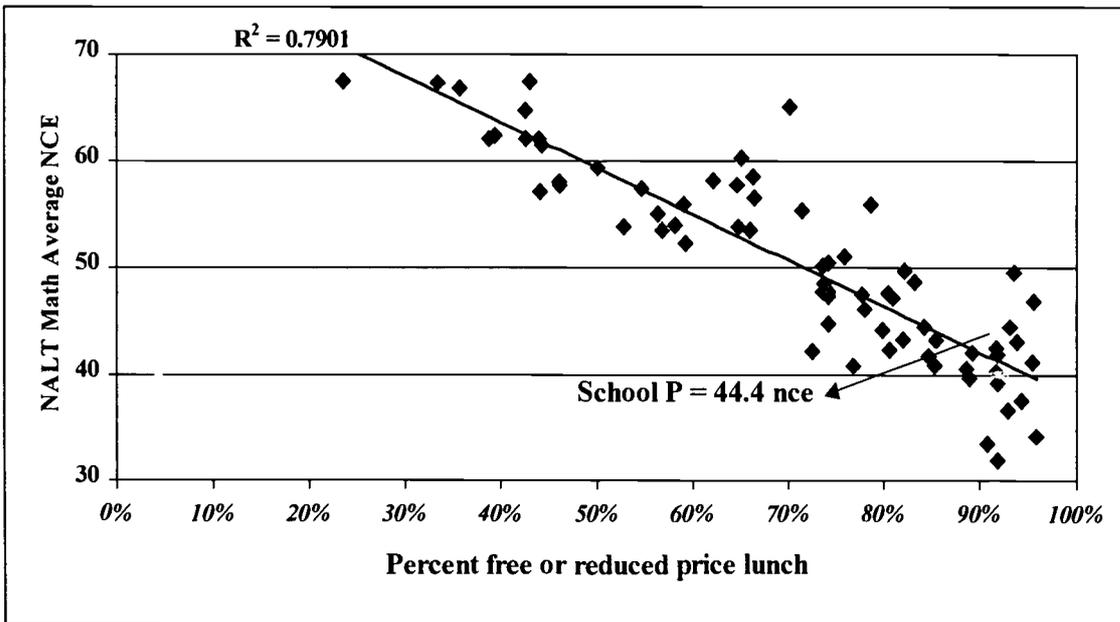
Table 1. Elementary and Middle School Achievement Indicators

Assessment Tool	Current Achievement Level	Cross-Cohort Change in Achievement Level	Achievement Gain & Value-added
	Indicators	Indicators	Indicators
Northwest Achievement Levels Tests in Reading and Math in Grades 2-7 and 9	Percentage of students on course to pass the Minnesota Basic Standards Tests		<ul style="list-style-type: none"> • Percent of students making national norm growth for 1yr and 3yrs • Equity of growth rates across racial/ethnic groups • 20/20 Analysis of growth at the top and bottom of the achievement distribution • NALT Value-added: Spring scores compared to prediction based on previous spring test scores and demographic factors
Oral Reading words read correctly per minute in grade level text			<ul style="list-style-type: none"> • Grade 2 oral reading rate versus prediction based on Grade 1 oral reading scores and student demographics
Minnesota Basic Standards Tests (reading & math) 8th - 12th grade	Percent of students passing the tests (given in 8th grade & High School until students pass)	Change in the percent of students passing the test from year to year	
Minnesota Comprehensive Assessments (in Reading, Math & Writing) Grades 3 and 5	Percentage of student in four competency levels converted to a point system. Points compared to state and district high standards.	Change in points for movement of students from one competency level to another (includes new students)	
Attendance	<ul style="list-style-type: none"> •Percent of students attending 95% or more of possible days •Percent of students attending summer school 	Yearly change in percent of students attending 95% or more of possible days	
Suspensions	Percent of students suspended for aggressive behavior	Change in percent of students suspended for aggressive behavior	
Climate	Student & Staff Survey responses for safety and respect		
Gifted and Talented	Number of quality components found in audit of the program		

Current Level of Performance Indicators and Poverty Levels

Level indicators from point-in-time assessments of academic achievement are confounded with entry level achievement of the student. It has been well established that achievement test scores without consideration of the entry-level scores are highly correlated with poverty levels. In Minneapolis, correlations between point-in-time Northwest Achievement Levels Test (NALT) scores and the percentage student receiving free or reduced price lunch have been consistently very high. Figure 2 presents the correlation between the 1999 NALT test of mathematics and the percentage of students receiving free or reduced price lunch in Minneapolis elementary and middle schools (n=71). It shows that 79% of the variance in school average test scores is accounted for by the percentage of students on free or reduced price lunch. Also noted in the graph is School P that has 93% students on free or reduced price lunch and an average NALT score at about the 40th national percentile (nce=44.4). Using a level system approach this school would be in the bottom 1/3rd of the distribution. Thus, school "P" is actually performing above the trend line, a fact that would be masked without closer inspection and appreciation of the effects of poverty on entry level skills.

Figure 2. Distribution of school average 1999 Northwest Achievement Level Test mathematics scores by free or reduced price lunch percentages.



Growth Measures

Cross-cohort change.

Cross-cohort indicators are the first of three growth indicators used within the MPS performance continuum. This type of indicator is typical for assessments that are given periodically at certain grade levels. For example, the Minnesota Basic Standards Tests are given for the first time in 8th grade. Scores

are reported each year for the district and schools, comparing the current year 8th-grade cohort to the previous year 8th-grade cohort. Arguably, while cross-cohort measures may be a better school performance indicator than the average test score at one point in time, they too can be prone to misinterpretation. For example, when entry-level skills of students vary from year to year or when a specific site experiences a dramatic shift in its student population, cross-cohort analyses can be highly misleading. Additionally, large changes in the percentage of students passing a test from one year to another may occur when special programs are added to a school, when school attendance boundaries change, or due to random fluctuations in the preparedness of students enrolling in the school. Obviously, cross-cohort analyses require more sophisticated interpretation. Despite these caveats, the Minnesota Comprehensive Assessments are reported only at grades 3, 5 and 10, and the Minnesota Basic Standards tests at grade 8, thus a cross-cohort analysis is the only form of growth data available at this time⁴.

Gain Indicators.

Student pre-post gain measures and value-added indicators are the backbone of the district accountability model. NALT scaled score gains are followed longitudinally for each student enrolled in the school district, and form the basis for judging whether each student is making adequate yearly progress toward district and state high standards of performance. This accountability indicator is one of the most frequently cited indicators of school performance within School Improvement Plans. Simply stated, schools can report on the percent of students making at least one-year's gain in one-year's time. By comparing each student's yearly scaled score gain versus the Northwest Evaluation Association growth norms, school effectiveness can be measured "one student at a time." In fact, this indicator has been found to be easily understood by most stakeholders compared to average scaled score growth or NCE gain.

The scaled scores obtained from the district NALT administration are used to determine individual student growth curves and to report the percentage of students making gains equal to or greater than the grade level norms. The NALT developers provides information on rate of growth in reading and math compared to the user group norms for over 500,000 continuously enrolled students. Obtained scaled score growth is compared to these national user norms to aggregate the percent of students in the school who make at least one year's growth in one year's time.

Additionally, scaled scores from the NALT have been equated with Minnesota Comprehensive Assessments (MCA) in grades 3 and 5 and the state graduation test in grade 8. The obtained correlation between state test scaled scores and NALT scaled scores at the same grade (i.e., concurrent validity coefficients) and at previous grade (i.e., predictive validity) are very high as shown in Table 2. All correlations are for the same subject (i.e., NALT reading test with MCA reading test, etc.).

⁴ However, the vendor for state testing in Minnesota is doing vertical equating so that gain scores can be reported on a continuous scale in the future

Table 2. Northwest Achievement Levels Tests (NALT) Concurrent and Predictive Validity Coefficients for all students assessed with Minnesota Comprehensive Assessments (MCA) in Grades 3 & 5 and the Minnesota Basic Standards Tests (MBST) in Grade 8.

Grade/Measure	Grade 3 Reading MCA	Grade 3 Math MCA	Grade 5 Reading MCA	Grade 5 Math MCA	Grade 8 Reading MBST	Grade 8 Math MBST
Grade 2 NALT ^a	(n/a)	.80 (n= 3219)				
Grade 3 NALT ^b	.87 (n=3785)	.87 (n=3640)				
Grade 4 NALT ^a			.85 (n= 3153)	.86 (n=3097)		
Grade 5 NALT ^b			.88 (n=3533)	.89 (n=3484)		
Grade 7 NALT ^c					.82 (n= 2608)	.88 (n= 2631)

^aNALT April, 1998 correlation with MCA March, 1999 for same subject area (predictive validity)

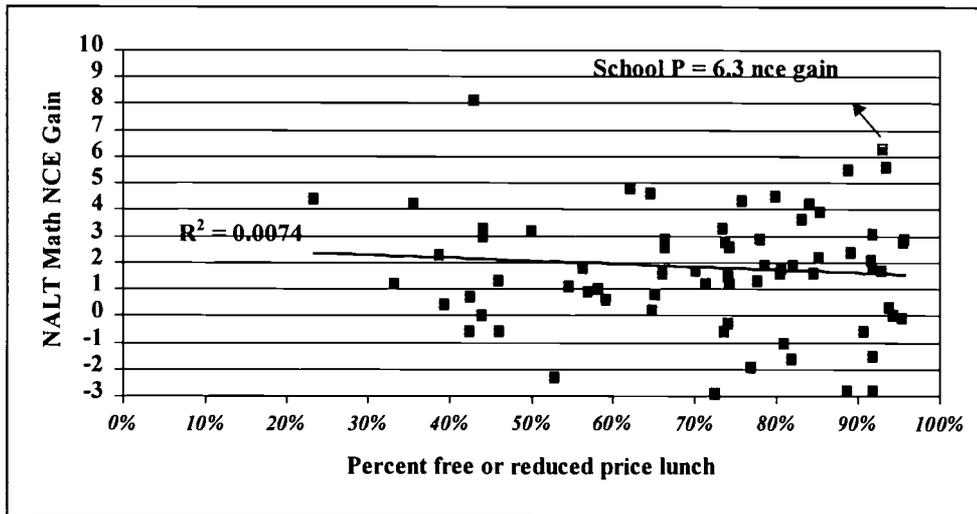
^bNALT April, 1999 correlation with MCA March, 1999 for same subject area (concurrent validity)

^cNALT April, 1998 correlation with MBST February, 1999 for same subject area (predictive validity)

Moreover, student performance on district measures can also be converted to normal curve equivalents for purposes of reporting overall school mean gains. Normal curve equivalent (NCE) scores are non-linear transformations from the percentile distribution that provide an equal interval scale for cross grade aggregation and comparison to national norm expectation. In the standard normal distribution the mean NCE = 50 and the standard deviation is 21.06. Mean NCE gains have been used in Minneapolis since the early 1990s for comparison among schools, racial/ethnic groups, and family income levels (e.g., free or reduced price lunch). While current level of performance by school is highly correlated with free or reduced price lunch percentages (Figure 2), one-year gains on the Northwest Achievement Level tests are relatively uncorrelated with measures of SES at the school level as indicated in Figure 3.

For example, additional analyses indicate that the free and reduced lunch percentage indicator accounts for less than 1% of the school by school variance in average mathematics gain. Please note that School "P" referenced earlier (see figure 2) had the highest average gain in math scores from 1998 to 1999.

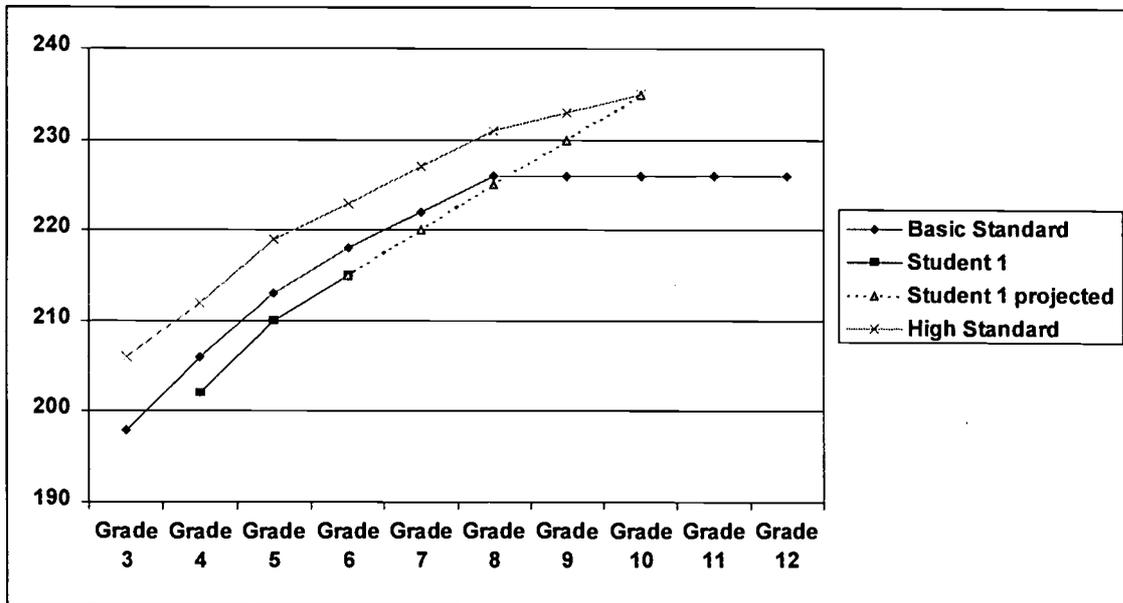
Figure 3. Distribution of school average mathematics gain scores on the 1999 Northwest Achievement Level Test by free or reduced price lunch percentages.



Program success, as noted here for School “P” (Figure 3) becomes unmasked by accounting for student characteristics associated with performance and then examining gain that “beat the odds.” Data for the past three years of testing are reported as one of the performance indicators as well. Thus, schools that have made significant progress over three years, but due to normal fluctuations in scores are credited for overall school performance.

Individual and group growth curves (Figure 4) depict student progress towards the Minnesota Basic Standards Test, a test necessary to graduate (that are roughly equivalent to the national norm in 8th grade) and high standards tests (MCA, which are approximately equivalent to the 80th national percentile rank at each point of administration).

Figure 4. One student's achievement on Northwest Achievement Level Reading Test versus the growth curves for the Minnesota Basic Standard (graduation test) and Comprehensive Assessments (high standard) estimates

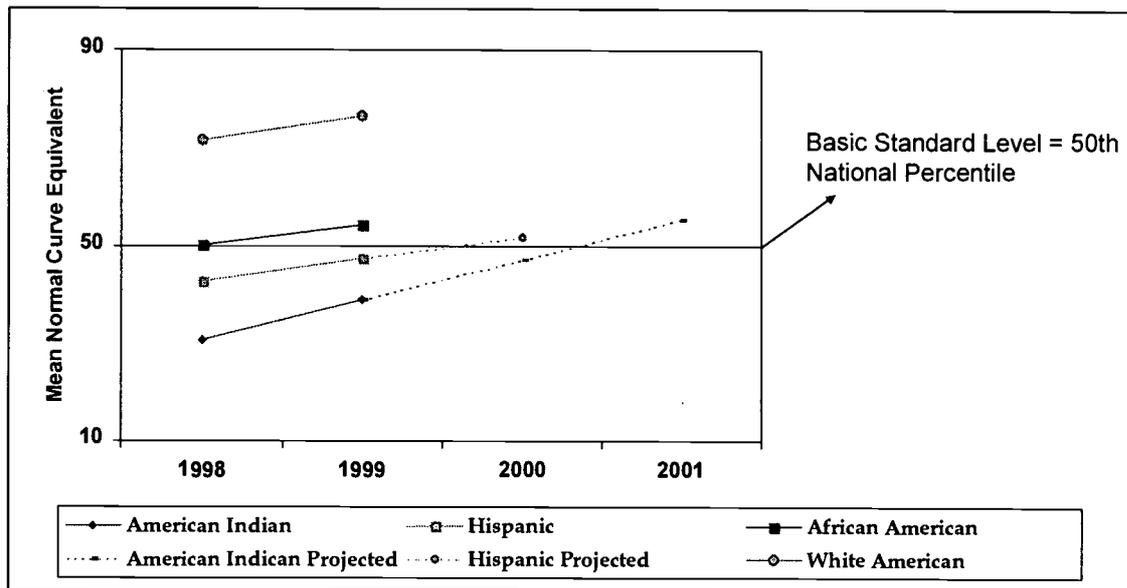


Finally, gain scores on the NALT (grades 2-7) are disaggregated by racial/ethnic group and growth rates analyzed to determine whether the growth rate for each group is sufficient to reach the basic standard level within five years. This approach addresses disparities of achievement by emphasizes "gaps to the standards" rather than the traditional approach of gaps between different racial/ethnic groups. In the traditional approach, it is possible to narrow the racial/ethnic gap by reducing growth for one group of students. Instead maximum points are awarded to schools who show accelerated growth toward high academic standards for all groups of students (see figure 5).

In this example, Emerson earned all five points on the indicator for achievement equity since all racial/ethnic groups enrolled recorded average reading gains that are sufficient to reach the Minnesota Basic Standard level in 5 years or less⁵.

⁵ Note that expected growth in nce units = zero; A straight line indicates that students on average have maintained their relative status versus the national norm, which in this case is approximately equivalent to the state 8th grade standard.

Figure 5. Northwest Achievement Level Gain 1998-99 and projected linear progress for Emerson Spanish Immersion Elementary School.



20/20 Analysis

The Minneapolis Public School's Research, Evaluation, and Assessment department also employs a 20/20 analysis, coined by Reynolds and Heistad (1993). Since schools are given the laudable charge to ensure all students learn, it is critically important, if not imperative, that schools are provided with measures of student performance that address the full continuum of student skill and ability level. Thus, schools need information that ensures all students are "visible" within any devised accountability system that reports on student performance. Therefore, a 20/20 analysis ensures that students at the margins, as well as for students who are performing at the central tendencies, are included in data analyses and available for school-level planning.

A 20/20 analysis is the examination of continuously enrolled students⁶ across time that isolates students performing at the top and bottom (1/5th) margins of a distribution, as well as students at the "average" or median level. The rationale for focusing on students at these identified margins is that these are the students who most clearly require adaptation in instruction that accounts for their exceptional status high-above or well-below grade level norms (Reynolds & Heistad, 1997; Reynolds, Zetlin, & Wang, 1993).

By having information at hand that allows schools to examine the trends for each of these student levels of performance, it can be determined if a program, school, or district has become "specialized" in the

⁶ For school-level accountability it is imperative to examine the performance of students who had the opportunity to benefit from or the misfortune of being enrolled at a specified site.

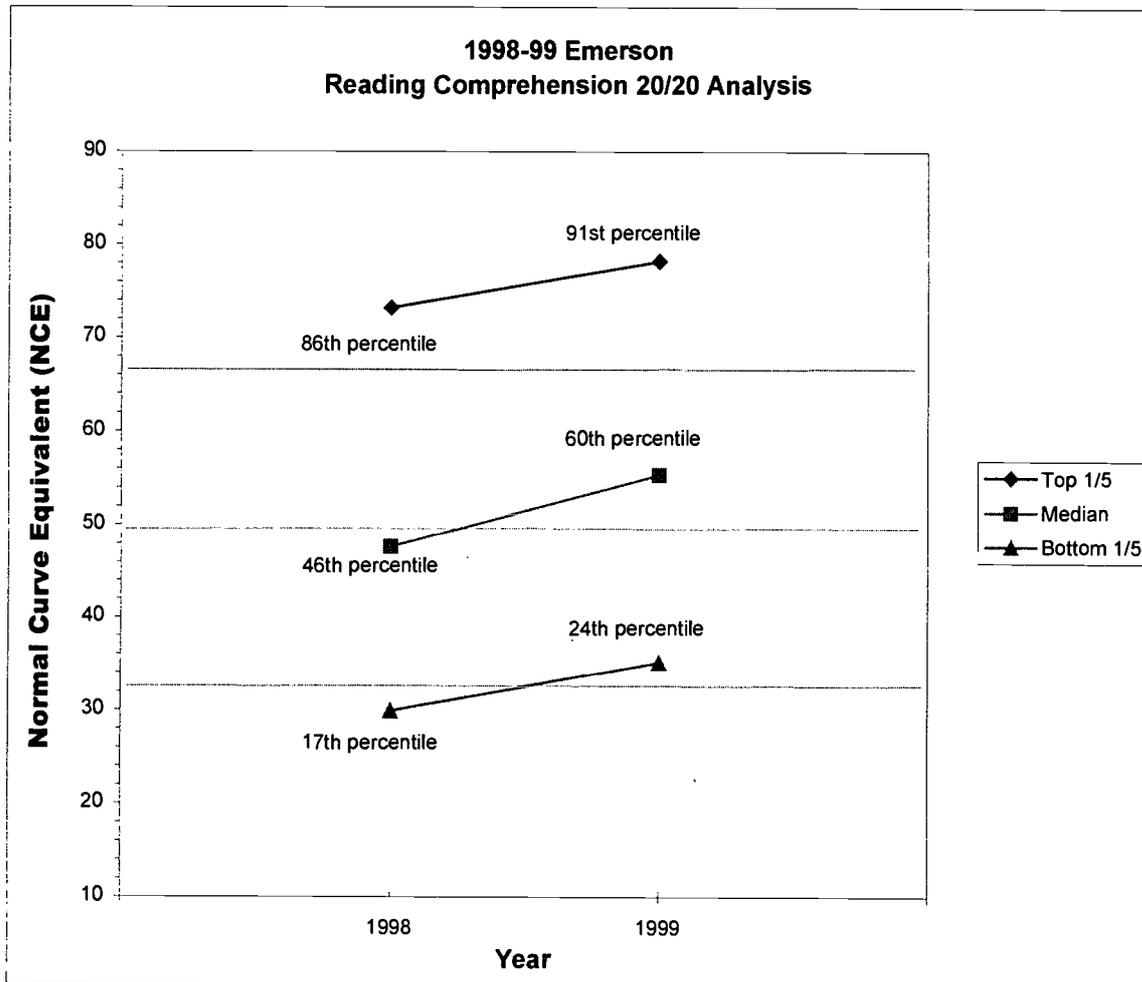
sense of accelerating learning within one level of student performance. For example, it is conceivable that a school program, building, or district could become so focused in their deployment of resources and delivery of instruction that they become overly specialized in meeting the instructional needs of low-achieving students. This in effect would create an unintended negative consequence of failing to meet the instructional needs of high-achieving students. Thus, a 20/20 analysis maintains the focus and reporting of student performance across the full continuum of student ability and skill level and avoids creating a reporting system that masks discrepancies in student performance among different skill levels.

Furthermore, the 20/20 analysis has been used as an excellent tool to review additional programming opportunities for students at the extremes. For example, Reynolds, Zetlin, and Wang (1993) conducted an examination of students who were performing at the extremes and the types of programming being afforded to students (e.g., gifted and talented, Assurance of Mastery, Title I, ESL, or special education, etc.). In Minneapolis Schools, 85% of the students in the bottom 1/5th of the score distribution were receiving special programming, and 75% were enrolled in special education (Heistad & Reynolds 1995). Moreover, this type of exploration revealed additional information on characteristics highly related to student performance, such as student attendance. In fact, students in the bottom 1/5th of the distribution had an absenteeism rate two times higher than the school average. In sum, the 20/20 analysis provides a unique metric for evaluating the effectiveness of programming established to address student exceptionalities.

In the 20/20 example that follows, information is reported for one school Emerson Spanish Immersion Learning Center (SILC). Data are reported by identifying specific cut-points in the achievement distribution that separates out the top 1/5th and bottom 1/5th. The greatest number of Quality Performance points (5 points) are awarded to schools where the top and bottom cut points have shifted upward compared to the national norm.

For example, in Figure 6 the distribution of NALT scores for continuously enrolled students (N=186) at Emerson SILC is depicted by plots for the bottom 1/5th cut score, the median, and the top 1/5th cut score in 1998 and 1999. In the case of Emerson SILC, the entire distribution of scores shifted from 1998 to 1999. The cut point for the bottom 1/5th increased from a normal curve equivalent (NCE) of 30 to 35 and the cut point for the top 1/5th increased from a NCE of 73 to 78. This amount of growth in one year is about 1/4th of a standard deviation on the normal curve, which is a substantial gain (note: the NCE distribution has a standard deviation of 21).

Figure 6. Emerson Spanish Immersion 20/20 Analysis NALT Reading Scores Continuously Enrolled Students (N=186) From spring 1998 to spring 1999



	<u>1998</u>	<u>1999</u>	
Top 1/5	73.18	78.20	168 Students
Median	47.65	55.30	
Bottom 1/5	29.90	35.10	

Overall, the 20/20 Analysis has been established as an efficient and useful metric for analyzing the progress of students and of evaluating the programs provided for them (Reynolds & Heistad, 1997; Reynolds, Zetlin, & Wang, 1993). It is our assumption that this analysis, in conjunction with the additional analyses described in this paper, can enhance instructional approaches for all students, as well as maintain a wide perspective in analyzing the effectiveness of these approaches.

Value-Added Indicators.

In Minneapolis Public Schools, “value-added” multiple regression analyses are conducted to determine school effectiveness. Like gain measures, value-added indicators report average growth from pretest to post-test for students enrolled in the school for at least one year.⁷ Unlike simple gain, the value-added corrects for the problem of correlation between initial test score and gain by using the pretest as a predictor of posttest performance. The value-added regression procedure used in Minneapolis also includes the following predictors⁸:

- 1) Free or reduced price lunch
- 2) English Language Learner (ELL, formerly LEP) status
- 3) Special Education status
- 4) Gender
- 5) African American and American Indian status
- 6) Lives with both parents status
- 7) Lives in high poverty zip code status

One method of calculation of value-added school effects computes the average residual from the simple regression across schools. This method is coined the “beat the odds” approach. All coefficients are centered around zero and represent the contribution of the school to student achievement greater than predicted. Another method of calculation substitutes actual district percentages of free or reduced lunch, ELL, Special Education, etc. into the obtained regression equation to estimate school by school performance for the “typical classroom” in the district.

Value-added indicators are the most equitable indices in comparing schools with differing populations of “at-risk” students. However, they are also the most difficult indicators to explain to the general public. As the public becomes accustomed to the presentation and interpretation of value-added effects it may be more feasible to add more value-added indices.

The Minneapolis Public School’s Improvement Framework.

Increasing accountability among schools within the Minneapolis Public School system (MPS) is the primary goal of the performance continuum framework. Inherent in any system as detailed and

⁷ Minneapolis is working with Rob Meyer at the University of Chicago to incorporate students with less than one year attendance into the value-added model. Pretests given to students at the time of admission to the school will allow a computation of partial year growth. These tests are currently in the pilot stage.

⁸ All of these factors are “dummy coded” with “0” or “1” in a single stage multiple regression with all factors entered simultaneously. For example “1” = current special education IEP; “0” non-special education.

complex as described here is the need to provide schools with a continuous cycle of information relative to the performance indicators, and then a method for reviewing, evaluating and setting new goals. The MPS district is building a multifaceted accountability system that encompasses individual, school, and system accountability to improve student learning. At the individual level, student accountability is being forged in the form of curriculum content and performance standards that are aligned with standards-based assessments. The district uses a standardized item bank with multiple test levels for each grade-level, which maximizes the opportunity to include most if not all students in the accountability system. The purpose is to measure student growth toward high academic standards as well as current status relative to those standards.

Next, we describe the Minneapolis Public Schools accountability cycle in relationship to the academic calendar year.

Accountability Components.

The district accountability model consists of six main components:

- School Performance Continuum
- School Improvement Reports (SIR)
- School Improvement Plans (SIP)
- School Improvement Plan Feedback (SIF)
- Quality Improvement Process (QIP)
- Quality Performance Award (QPA)

These accountability tools are different facets of a single continuous improvement process for each school site⁹. The framework is aligned with the Strategic Direction of the Minneapolis Public Schools, the District Improvement Agenda, curriculum and performance standards for learning, and school quality standards. This integrated system should help to enhance and maintain consistent feedback to schools about expectations for improvement related to clearly articulated District standards. In addition, the performance continuum should help to guide the work of those providing feedback to schools, such as school improvement feedback (SIF), school visits by a quality cadre (QIP), school improvement reports (SIR), and monetary performance awards (QPA).

The Accountability cycle.

The MPS model of provides continuous feedback on student performance, attendance, building climate, etc. and supports teachers and the site leadership teams to openly discuss priorities for allocating resources and adapting instruction to enhance student achievement. This process is called the School Improvement Planning Cycle, depicted in Appendix D. Beginning in August, critical data regarding student performance is included in an annual School Information Report (SIR) provided to principals, teachers, parents and other leadership team. These reports include data such as:

- student performance on state high-stakes graduation assessments, the Minnesota Basic Standards Tests (MBST).
- student performance on high standards measures, referred to as the Minnesota Comprehensive Assessments (MCA).
- scaled score information on the Northwest Achievement Levels Test and school- and grade-level information on the percentage of students “on-course” to pass the MBST in the content areas of math and reading.
- staff and students responses to a district administered survey.
- staff and student characteristics.

The school Information Report also provides math and reading gain scores by grade level, referenced to national growth norms for students who are continuously enrolled across two testing periods (e.g., spring to spring from one year to the next).

At the school-level, each site is encouraged to recruit key stakeholders from inside and outside of the school building (e.g., staff, parents, administrators, site council members, business community, etc.) to critically review the reported progress of the school in relationship to the identified indicators. These critical reviews are a way to report back to interested stakeholders about school performance and to examine the strengths and weaknesses of the current programming so that areas of need may be prioritized. Once areas of need are prioritized, school teams are assigned the task of developing a SIP. SIPs are used to carefully craft the short-term and long-term goals and objectives a school will put in place to affect change. Additionally, SIPs address how resources will be allocated to support the identified initiatives at each site. Finally, schools must identify a system of continuous measurement to ensure that mid-course corrections can be made --if sufficient progress is not made-- as well as to allow definitive statements about overall school outcomes. The SIP, in essence, becomes the school’s “road map” for charting an academic path and documenting how information will be gathered and used to evaluate overall performance.

After each school site completes their SIP, they submit the document to the district office where a team of objective readers is convened to review the documents for clarity, cohesiveness of school-based initiatives, and appropriateness of the methods selected related to the target goals and objectives. Written feedback is provided by the external reviewers and is provided back to the building site teams in a face-to-face meeting referred to as School Improvement Plan Feedback (SIF). The SIF meetings occur throughout the academic year beginning in late fall. In addition, schools are encouraged to provide progress reports and up dates on student progress at these meetings.

⁹ See appendix for a flowchart of the linkages among accountability processes.

In the spring of each academic year, district assessments in reading (grades 1-7, 9) and math (grades 2-7, & 9) are administered along with district-wide staff and student surveys. Information is reported back in late spring to allow individual reports to be generated for students, families, teachers and staff. These reports allow schools to review the progress made to date in relationship to the SIP developed earlier in the academic year.

The MPS Research, Evaluation, and Assessment department then begins the task of aligning and reporting on all 33 or 24 indicators for the August SIR released to the schools and community. The REA staff work to ensure information is reported using the identified level and growth indicators and to study the relationship to external measures of progress (State high stakes measures and measures of high standards, and national exams). MPS is working on maintaining the SIP cycle and helping schools to extend their focus toward more long-term planning, and to provide assistance to schools in trouble so that they may make more immediate corrective actions. The school improvement cycle is a framework that empowers leadership at individual schools to maintain and expand innovative programs and to make corrective action when necessary. The performance continuum described within this paper describes the ability to reward schools with stellar performance. In extreme cases, when schools fail to demonstrate expected levels of performance or gains, the district will step in and become more prescriptive, providing more intensive support services to affect school improvement.

Much of the discussion up to this point has focused on school and district indicators as well as processes of accountability. However, Minneapolis has begun to expand their use of value-added analyses to focus attention on teachers “who beat the odds.” In this way, the district can begin to cast an eye towards replicating successful practices rather than using these indicators to identify “low performing” teachers. A study of teacher value-added effects in second grade reading provided feedback on the instructional methods associated with exceptional instruction (c.f., Heistad, 1999). The goal is to help identify exceptional practices and provide opportunities to replicate these effective practices across the district.

The primary goal of developing and deploying a performance continuum of school performance has been to ensure continuous improvement among all Minneapolis Public Schools as well as to ensure continuous improvement in student learning. The performance continuum described in this paper is obviously a work in progress. The critical question for any district to answer is this: Are the identified set of indicators providing a substantially better measure of school performance than other affordable indicators? And do the indicators in concert make a net, positive contribution to the school improvement process, relative to other possible indicators and school accountability systems available? (Meyer, 1999, p.8-9). As a district committed to high standards and good academic progress of all its students, we affirm that indicators of school performance which include growth and value-added indices are essential metrics to include in any fair, equitable, and non-biased system of evaluation.

Findings and Further Discussion

At the school level, no one would disagree that student characteristics such as poverty and prior achievement levels are related to mean school performance. Furthermore, previous analyses indicate at the student level, that prior test scores, racial/ethnic background, and special educational needs (LEP and Special Ed.) affect student learning. However, some models of school performance evaluation do not explicitly account for student demographic differences in their value-added model (e.g., see a review of the Tennessee Value-Added Assessment System, Bock, 1996). In MPS previous experience and extensive statistical modeling (Du & Heistad, 1999; Meyers 1999, 2000) has indicated that a multiple regression approach that accounts for poverty, race, special education, and English language status does provide more precise estimates of school performance, compared to a model of post-test performance controlling for pretest. Additional studies and comparisons of the different statistical models are currently underway (Meyer & Heistad, in progress).

This paper describes Minneapolis Public Schools accountability system and presents the indicators used in the system. Moreover, this paper provides a practical application of how value-added indicators can and should be included in any accountability model designed to evaluate the effectiveness of schools. The Minneapolis Public Schools model proposed here reflects school performance relative to pre-agreed upon, pre-selected indicators and clearly articulated standards of performance. These standards include State of Minnesota Comprehensive Assessments and graduation tests reported each year. The cross-cohort analyses compare changes in the percent of students performing at different proficiency levels or passing graduation tests. Yet, we have argued in this paper that current level of performance and "cross-cohort" analyses of achievement are relatively weak indicators of overall school performance and should be supplemented with indicators that follow students progress across time. The variety and number of gain indicators and value-added indicators of academic performance are what we believe distinguish the Minneapolis Public Schools accountability system from those that largely focus on current level of performance.

Current level of performance and cross-cohort indicators are typically unfair to schools with high mobility and school enrollments with larger percentages of at-risk students. As large number of language minority students and students with other special needs enter the school district, certain schools are much more likely to receive disproportionate numbers of students with low entry-level skills. In comparison other schools might have different enrollment patterns and be more likely to receive students with high entry-level skills. Current level accountability systems would not be equitable in providing unbiased evaluations of school performance.

The present set of indicators used in MPS is based on extensive collaboration among community stakeholders, district leaders and research staff. The MPS hybrid model that was approved for this year's

performance awards includes more growth indicators than some stakeholders wanted and not enough for others. Similarly the balance between academic and non-academic indicators was the result of compromise among the stakeholders. Each indicator that was chosen also needed to pass the “gas pump” criteria. That is, could the indicator be explained to an ordinary tax payer in five minutes, while filling up the gas tank. Some indicators, like the 20/20 analysis and value-added approaches need to be summarized with communication “sound-bites.”

For example, in the 20/20 analysis “we are making sure that all students, not just average performing students, are making progress towards the high standards.” When describing the value-added analysis, we talk about “acknowledging schools that beat-the-odds: schools who are doing an exceptional job with students in poverty, students of color and special needs students.” Clearly some high stakes accountability systems have failed to pass the “gas pump” test in the eyes of their critics (Fisher, 1996).

Ultimately, the value of this accountability system will be measured in terms of its consequences. That is, we must evaluate the extent to which interventions can be matched to the information provided to schools via the indicator system to improve student learning. To this end, a multiple indicator system may again be helpful. Not only do multiple achievement indicators provide increased reliability of measurement, each of the indices provides some form of diagnostic feedback to the school.

Furthermore, there is reason to believe that effective accountability systems emphasize reward rather than punishment. Principles of behavior intervention suggest that punishments are likely to result in emotional behaviors (e.g., fear and resentment) and are unlikely to advance learning of new behaviors (Skinner, 1953). In the extreme situation, school leadership and faculty may react very aggressively towards the accountability system where the school actually expects that they should be receiving a reward for their efforts and instead receive threats of or actual punishment. Consider the case of School “P” depicted in Figures 2 and 3. At the end of the 1998-99 school year their average level of mathematics achievement placed them well below the basic standard level -- they are in the bottom third of all elementary schools in the district. However, this school demonstrated one of the highest mathematics learning rates over a one-year period. Under some accountability systems school “P” might have been reprimanded, in Minneapolis this school had multiple indicators of value-added and received a Quality Performance Award.

Finally, the “hard data” from summative assessment should not be the only thing that matters. When schools receive detailed school information reports from the research department in the fall of each year, they revise goals and strategies for the coming year. However, they bring a wealth of school level data to the table as well. If the accountability system indicates a weakness in one particular area of mathematics, the school may turn to building level performance assessments and permanent products of student work to localize the deficiencies in certain grade levels or classrooms. If reading scores are down,

formative assessments of individual student growth rates on classroom level assessments may provide a framework for evaluating new strategies.

When the MPS Area Superintendent engages in a "performance conversation" with the leadership team at a particular site, school level data on such things as the degree of program implementation and formative evaluation data must play at least as prominent a role as the summative data on indicators of progress. If reconstitution¹⁰ of the school is to be considered, a detailed audit of variables underlying the accountability indices should also be undertaken. This is a time when professional judgment needs to supersede the statistical index. Hopefully, this paper will be useful to practitioners, administrators or researchers interested in identifying and combining school performance indicators to make high stakes accountability decisions for school districts.

¹⁰ Further studies need to examine the efficacy of reconstitution a popular, but unproven intervention for increasing student achievement.

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Appendix A

Minneapolis Public Schools

Quality Performance Indicators 2000

QPA Indicators

INDICATORS	CURRENT LEVEL (OK Measure)	CROSS-COHORT GROWTH (Good Measures)	GAIN AND VALUE-ADDED (Best Measures)
READING	#3 On Track for passing MBST	#14 Increase in MCA points from 1998 to 1999	#1, #8 Percent of Students making at least 1 year gain (across one year 1998-99; across three years 1996 to 1997, 1997 to 1998, 1998 to 1999)
	#11 MCA points	#18 Increase in MBST Pass rates from 1997 to 1999	#5 1999 NALT scores greater than predicted based on 1998 pre-test score and demographic variables
	#16 % Passed MBST		#7 1999 Grade 2 Oral Reading rate greater than predicted based on 1998 pre-test score and demographic variables
MATH	#4 On Track for passing MBST	#15 Increase in MCA points from 1998 to 1999	#21, #23 Shift in NALT scores for students in the top and bottom 1/5 of the achievement distribution (20/20 Analysis)
	#12 MCA points	#19 Increase in MBST Pass rates from 1997 to 1999	#24 NALT gain by racial/ethnic group
	#7 %Passed MBST		#15, #17 Percent of students making at least 1 year gain (across one year 1998-99; across three years 1996-1997, 1997-1998, 1998-1999)
WRITING	#10 MCA points	#13 Increase in MCA points from 1998 to 1999	#6 1999 NALT scores greater than predicted based on 1998 pre-test score and demographic variables
	#31 Attended 95%	#32 Increase in Attendance at 95% from 1998 to 1999	#21, #23 Shift in NALT scores for students in the top and bottom 1/5 of the achievement distribution (20/20 Analysis)
ATTENDANCE	#33 Percent of recommended students attending summer school		#24 NALT gain by racial/ethnic group
	#26 Safety Survey Items		
SCHOOL CLIMATE	#27 Respect Survey Items		
	#28 Suspensions for Aggression	#29 Change in Suspensions 1998 to 1999	
GIFTED PROGRAMS	#12 Quality Rating		

Appendix A: Quality Performance Award Points for Emerson Elementary

Indicators 1 & 2		Indicators 3 & 4		Indicators 5 & 6		Indicator 7		Indicators 8 & 9	
Students making national norm growth in reading and math		Current Student Achievement Levels compared with 8th grade pass cut-off		Growth in reading and math greater than predicted ("beat the odds")		Growth in early reading proficiency greater than predicted ("beat the odds")		Long term productivity	
Growth Measure Percentage of students making greater than one year growth in reading and math on NALT		Standard Measure Percentage of students "on-course" to Pass the MBST Reading & Math on the first attempt in 8th grade (Based on NALT scores)		Growth Measure Average NALT NCE gain greater than predicted for the typical classroom (controlling for pretest level ELL, Special Ed, poverty)		Growth Measure Grade 2 Oral Reading words correct per minute (wpm) greater than predicted for typical classroom		Growth Measure Percentage of students making at least one year growth over the past 3 years (1996 to 1997; 1997 to 1998; 1998 to 1999)	
Results		Possible QPA Points		Possible QPA Points		Possible QPA Points		Possible QPA Points	
		Read Math		Read Math		Oral Reading		Read Math	
≥70%		5 5		5 5		≥15wpm		≥70%	
60-69%		4 4		4 4		10-14 wpm		60-69%	
50-59%		3 3		3 3		5-9 wpm		50-59%	
45-49%		2 2		2 2		0-4 wpm		45-49%	
<45%		1 1		1 1		<0wpm		<45%	
Pts. Awarded		4 4		4 5		Pts. Awarded		4 4	
Indicators 10,11 & 12		Indicators 13,14 & 15		Indicators 16 & 17		Indicator 18 & 19		Indicators 20 & 21	
Student performance compared with State high standards		Student performance compared with State high standards		Student performance compared with Minnesota Basic Standards		Student performance compared with Minnesota Basic Standards		Performance for students who are above the basic standard level	
Standards Measure State Points for MCA : Level I=0 points; Level II=50 points; Level III = 100 points; Level IV = 125 points		Growth Measure Difference in State Points for MCA 1998 to 1999: Level I=0 points; Level II=50 points; Level III = 100 points; Level IV = 125 points		Standards Measure Percent of students passing the MBST in Reading and Math on first attempt in 8th grade		Growth Measure Increase in percent of students passing the MBST in Reading and Math on first attempt in 8th grade 1997 to 1999		Growth Measure Shift in the NALT scores for the top 1/5 of continuously enrolled students (i.e. 20/20 analysis)	
Results		Possible QPA Points		Possible QPA Points		Possible QPA Points		Possible QPA Points	
		Writ. Read Math		Read. Math		Read. Math		Read Math	
65 +		5 5		5 5		≥15%		≥5nce	
55-64		4 4		4 4		10-14%		2.5-4.9nce	
45-54		3 3		3 3		5-9%		0-2.5nce	
25-44		2 2		2 2		0-4%		<0nce	
<25		1 1		1 1		<0%		<-2.5nce	
Pts. Awarded		4 4		4 4		Pts. Awarded		5 4	

Quality Performance Awards for Emerson Elementary

Indicators 22 & 23		Indicators 24 & 25		Indicator 26		Indicator 27		Indicator 28		Indicator 29					
Growth Measure		Growth Measure		I Feel Safe in this school		Staff and Students Respect for each other		% of students suspended for aggressive behavior		Change in suspension rate for aggression 1998 to 1999					
Shift in the NALT scores for the bottom 1/5 of continuously enrolled students (i.e. 20/20 analysis)		Equity of achievement. 5 year growth rate deficit to the standard for all racial/ethnic groups on the NALT		Percent of students and staff who agree with the statement on staff & student surveys		Percent of students and staff who agree with the statement on staff & student surveys		Results		Possible QPA Points					
Results	Possible QPA Points	Read	Math	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points				
>=5nce	5	5	5	95%+	5	95%+	5	<2%	5	>5% decr.	5				
2.5-4.9nce	4	4	4	90-94%	4	90-94%	4	2-5%	4	1-5% decr.	4				
0-2.5nce	3	3	3	85-90%	3	85-90%	3	6-9%	3	same	3				
<0nce	2	2	2	71-84%	2	71-84%	2	10-14%	2	1-5% inc	2				
<-2.5nce	1	1	1	<=70%	1	<=70%	1	>15%	1	>5% inc	1				
Pts. Awarded	5	5	4	Pts. Awarded	5	Pts. Awarded	3	Pts. Awarded	4	Pts. Awarded	4				
Indicator 30				Indicator 31				Indicator 32				Indicator 33			
Standard Measure				Standard Measure				Growth Measure				Standard Measure			
Quality of Gifted and Talented Program (rated on 1-5 scale)				Percent of students attending 95% of enrolled days				Change in percent of students attending 95% of enrolled days				Percent of recommended students who attended summer school.			
Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points		
5 points	5	>=70%	5	>=10% incr	5	>=70%	5	>=70%	5	>=70%	5	>=70%	5		
4 points	4	60-69%	4	5-9% incr	4	60-69%	4	60-69%	4	60-69%	4	60-69%	4		
3 points	3	50-59%	3	0-5% incr	3	50-59%	3	50-59%	3	50-59%	3	50-59%	3		
2 points	2	40-49%	2	0-2% decr	2	40-49%	2	40-49%	2	40-49%	2	40-49%	2		
0 or 1 pts	1	<40%	1	> 2 % decr	1	<40%	1	<40%	1	<40%	1	<40%	1		
Pts. Awarded	3	Pts. Awarded	2	Pts. Awarded	3	Pts. Awarded	3	Pts. To be Awarded	1	Pts. To be Awarded	3	Pts. To be Awarded	4		
Total Points (based on possible indicators)				Points for best practices indicators				Points for best practices indicators				Best Practices Indicators			
EMERSON				(Determined by review of QPA application) =>				Indicator QPA Participation SIP Goals				Indicator Parent Involvement Standards			
possible indicators = 32								School Innovation Behavior Plan				Community School Classroom Student Activities			
Total points = 134								Staff Dev. Plan				Total Best Practice			
Average rating = 4.2								PDP Alignment QPA Plans				80			
								QPA Prev. Award				5			
								10				5			
								15				5			
								10				5			
								5				5			
								5				5			
								5				5			
								5				80			
								5				5			

Appendix A: Quality Performance Award Points for Lincoln High School

Indicators 1 & 2			Indicators 3 & 4			Indicator 5			Indicator 6			Indicator 7	
Students making national norm growth in reading and math			Current student achievement levels compared with MBST pass cut-off			Current student achievement levels compared with MBST pass cut-off			Current student achievement levels compared with MBST pass cut-off			Participation in High Standards assessment	
Growth Measure			Standard Measure			Standard Measure			Growth Measure			Standards Measure	
Percentage of students making one year growth or more in reading and math (8th Grade MBST to 9th Grade NALT)			Percentage of students passing Reading & Math MBST in 9th Grade (students who failed in 8th grade or new to the district)			Percentage of students passing Writing MBST in 10th Grade (i.e. score of "3" on 1-4 rubric)			Average Writing Scores for typical 10th grade classroom compared to prediction (i.e. controlling for ELL, Special Ed, poverty, & prior MBST)			Percentage of students assessed with ACT PLAN	
Results	Possible QPA Points		Results	Possible QPA Points		Results	Possible QPA Points		Results	Possible QPA Points		Results	Possible QPA Points
	Read	Math		Read	Math		Writing	Writing					
>=70%	5	5	>=50%	5	5	>=80%	5	5	>=3.2	5	5	>=90%	5
>=60%	4	4	>=40%	4	4	>=70%	4	4	>=3.0	4	4	>=80%	4
>=50%	3	3	>=30%	3	3	>=60%	3	3	>=2.8	3	3	>=70%	3
>=45%	2	2	>=20%	2	2	>=50%	2	2	>=2.6	2	2	>=60%	2
<45%	1	1	<20%	1	1	<50%	1	1	<2.5	1	1	<60%	1
Pts. Awarded	4		Pts. Awarded	3		Pts. Awarded	2		Pts. Awarded	3		Pts. Awarded	3
Indicator 8			Indicator 9			Indicator 10			Indicator 11 & 12			Indicator 13	
Participation in High Standards Assessment			Student performance compared with High Standards			Student performance compared with High Standards			Student performance compared with Minnesota Basic Standards			Equitable participation in High Standards classes	
Growth Measure			Standards Measure			Standards Measure			Growth Measure			Standard Measure	
Increase in percentage of students assessed with ACT PLAN			Average ACT PLAN Composite Score – in standard score (ss) units with national mean = 50			Increase in Average ACT PLAN Composite Standard Score from 1998 to 1999			Increase in the percentage of 9th Grade students passing the Reading and Math MBSTs in 9th Grade.			Percent of students of color enrolled in AP or IB classes	
Results	Possible QPA Points		Results	Possible QPA Points		Results	Possible QPA Points		Results	Possible QPA Points		Results	Possible QPA Points
	Read	Math		Read	Math		Read	Math					
>=5%	5	5	>=70	5	5	>=3ss	5	5	>=10% incr	5	5	>=30%	5
>=2%	4	4	>=60	4	4	>=1ss	4	4	>= 5% incr	4	4	>=15%	4
>=0%	3	3	>=45	3	3	>=-1ss	3	3	>0% incr	3	3	>=10%	3
>=-2%	2	2	>=35	2	2	>=-3ss	2	2	0	2	2	>=5%	2
<-2%	1	1	<35	1	1	<-3ss	1	1	<0% incr	1	1	<5%	1
Pts. Awarded	5		Pts. Awarded	3		Pts. Awarded	1		Pts. Awarded	3		Pts. Awarded	3

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High School Quality Performance Awards for Lincoln High School

Indicator 14		Indicator 15		Indicator 16		Indicator 17		Indicator 18		Indicator 19	
Growth Measure		Standard Measure		I Feel Safe in this school		Staff and Students Respect for each other		% of students suspended for aggressive behavior		Change in suspension rate for aggression 1998 to 1999	
Increase in Percent of students of color enrolled in AP or IB classes		Percent of students of color enrolled in Magnet Programs		Percent of students and staff who agree with the statement on staff & student surveys		Percent of students and staff who agree with the statement on staff & student surveys					
Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points
>=10%	5	>=50%	5	95%+	5	<2%	5	>20% decr.	5		
>=5%	4	>=40%	4	95%	4	2-5%	4	1-20% decr.	4		
>=2%	3	>=25%	3	85%	3	6-9%	3	same	3		
>=0%	2	>=10%	2	80%	2	10-14%	2	1-25% inc	2		
<0%	1	<10%	1	70%	1	>15%	1	>25% inc	1		
Pts. Awarded	3	Pts. Awarded	3	Pts. Awarded	2	Pts. Awarded	3	Pts. Awarded	3	Pts. Awarded	5

Indicator 20		Indicator 21		Indicator 22		Indicator 23		Indicator 24	
Growth Measure		Growth Measure		Standard Measure		Growth Measure		Standard Measure	
Increase in percent of students of color enrolled in Magnet Programs		Change in percent of students of color "on course" to graduate based on course credits		Percent of students attending 95% of enrolled days		Change in percent of students attending 95% of enrolled days		Percent of students of color "on course" to graduate based on course credits	
Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points	Results	Possible QPA Points
>=10%	5	>=10%	5	>=70%	5	>=10% incr	5	>=70%	5
>=5%	4	>=5%	4	60-69%	4	5-9% incr	4	>=60%	4
>=0%	3	>=0%	3	50-59%	3	0-5% incr	3	>=50%	3
>=-5%	2	>=-5%	2	40-49%	2	0-2% decr	2	>=45%	2
<-5%	1	<-5%	1	<40%	1	> 2 % decr	1	<45%	1
Pts. Awarded	1	Pts. Awarded	4	Pts. Awarded	4	Pts. Awarded	4	Pts. Awarded	3

Best Practices Indicators					
Indicator	Poss Pts	Awd	Indicator Parent Involvement Standards	Poss Pts	Awd
QPA Participation	10	---	Community	5	---
SIP Goals	15	---	School Classroom	5	---
School Innovation	10	---	Student Activities	5	---
Behavior Plan	5	---	Total Best Practice	80	---
Staff Dev. Plan	5	---			
PDP Alignment	5	---			
QPA Plans	5	---			
QPA Prev. Award	5	---			

Total Points (based on possible indicators)
 for
 Lincoln High School
 = 68
 Average rating = 2.8



Appendix B

**Quality Performance Rubric:
Minneapolis Public Schools**

Quality Performance Award Criteria

(Possible points shown in right column, awarded points in lowermost right.)

Cover Sheet

Leadership Sign-Off	Pts
Represents all stakeholder groups (parents, community rep, students, if age appropriate), teachers, principal) on site team; staff comprises 50% or less of team	5
Represents all stakeholder groups (parents, community rep, students, if age appropriate), teachers, principal)	3
Leadership Team Chair, principal, teacher and parent represented, some stakeholder groups not represented	1
Points Awarded	

Participation of Others in Application	Pts
PDP Coordinator, Staff Development Coordinator, community representatives and others in collaborative roles	5
PDP Coordinator and Staff Development Coordinator	3
Others in collaborative roles	1
Points Awarded	

Professional Development Plan Alignment	Pts
Alignment, active teams and an array of activities	5
Alignment, with active teams (meet more than 6 times/year)	3
Alignment with School Improvement Plan	1
Points Awarded	

Written Application:

A. 1 & 2 School Improvement Goals	Pts
Surpassed "stretch" goal aligned with DIA	15
Surpassed goal	9
Achieved goal	3
Points Awarded	

A. 3 Behavior Plan	Pts
Behavior Plan completed and submitted, with data and strategies clearly linked	5
Behavior plan completed and submitted	1
Points Awarded	

A. 4 & 5 Staff Development Plans	Pts
Plan clearly aligned with SIP with goals that include clear, well-defined indicators	5
Goals clearly related to SIP	3
Plan developed, inconsistent alignment with SIP	1
Points Awarded	

A. 6 Community/Parent Involvement	Pts
Significant increases in community and parent involvement demonstrated using multiple measures promising strategies implemented, frequent monitoring	5
Increases in community and parent involvement shown on more than one measure	3
Planning and strategies implemented to increase community and parent involvement	1
Points Awarded	

A. 6 School/Parent Involvement	Pts
Significant progress demonstrated on multiple indicators of school level Family Involvement Standards	5
Progress demonstrated on multiple indicators of school level Family Involvement Standards	3
Evidence that some indicators of school level Family Involvement Standards monitored	1
Points Awarded	

A. 6 Classroom Parent Involvement	Pts
Significant progress demonstrated by a number of classrooms on indicators of classroom level Family Involvement Standards	5
Progress demonstrated on multiple indicators of classroom level Family Involvement standards	3
Evidence of a some indicators of classroom level Family Involvement Standards monitored	1
Points Awarded	

A. 7 Student Involvement in Activities	Pts
Significant progress demonstrated on indicators of student participation in co-curricular (i.e., after school) activities	5
Progress demonstrated on indicators of student participation in co-curricular (i.e., after school) activities	3
Evidence that levels of participation in student activities is monitored	1
Points Awarded	

A. 8 Innovation	Pts
Promising strategy developed and implemented; networking potential evident; funded from site allocation	5
Promising strategy implemented, networking potential evident, funded from grant or district source	3
Promising strategy implemented	1
Points Awarded	

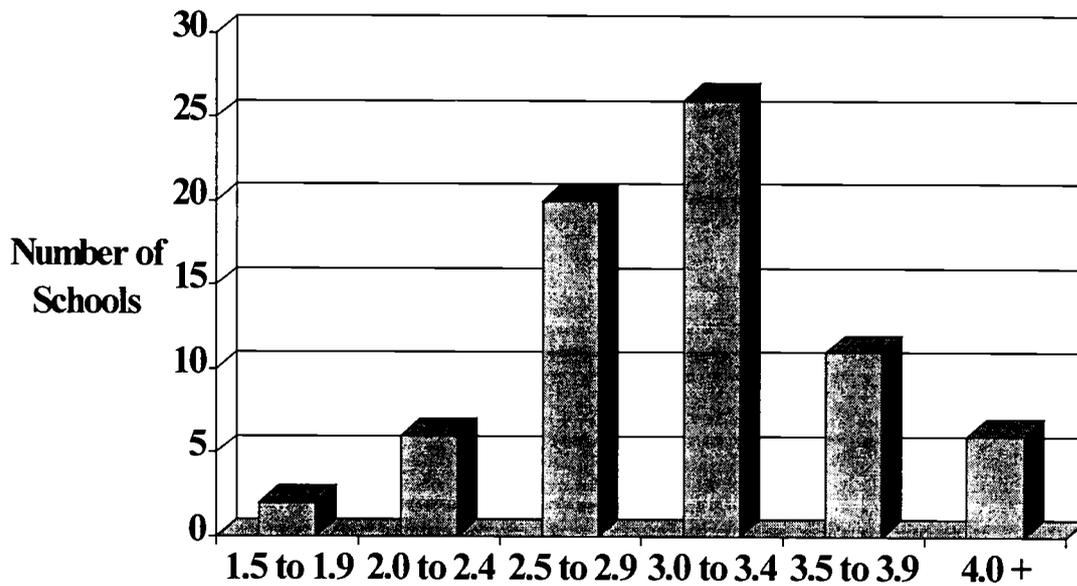
B. 1 Plans for Use of QPA Funds	Pts
Includes specific plans to collaborate with other sites and networking shows promise to deliver on outcomes aligned with district's priorities, e.g., middle school redesign, transitions	5
Plans to share promising practices with staff and community, e.g. open houses, fairs, electronic presentations on web, or products will be produced for presentations	3
Plan is integrated with SIP and DIA	1
Points Awarded	

B. 2, C. 1 Previous Award Use & Networking	Pts
Networking impacted another site's improvement	5
Award used to support continuous improvement goals at recipient site, e.g., student work activities provided, PDP supported, leadership developed	3
SIP goals supported	1
Points Awarded	

Appendix C

**Distribution of Minneapolis Schools and
Quality Performance Points**

Average QPA Rating for 71 Minneapolis Elementary and Middle Schools



45

Appendix D

School Improvement Planning Cycle

School Improvement Planning Cycle

August

Review Critical Data

- ◆ District's Strategic Direction
- ◆ District's Improvement Agenda
- ◆ School Information Reports
- ◆ Other pertinent data used by your school

Communicate to and with stakeholders

August-September-October

Have a performance conversation and identify areas for Improvement, linking school target areas to District goals

Communicate to and with stakeholders

September-October

Develop School Improvement Plan

- ◆ Develop measurable goals and objectives
- ◆ Identify strategies/actions that clearly support objectives, align PDP and staff development activities with SIP goals
- ◆ Link budget to actions, strategies and personnel
- ◆ Identify person(s) responsible
- ◆ Determine timeline
- ◆ Identify indicators of success
- ◆ Determine evaluation process
- ◆ Monitor progress throughout the year

Plans due October 30

Communicate to and with stakeholders

October-June

Implement the School Improvement Plan (strategies/activities)

Communicate to and with stakeholders

December-January

School Improvement Plan Feedback (SIP)

November-June

Monitor Progress

- ◆ Check indicators of success
- ◆ Adjust action plan, as needed
- ◆ Second performance conversation

Communicate to and with stakeholders

Communicate to and with stakeholders

Fall 1999

Quality Performance Award Review

Communicate to and with stakeholders

August 1999

Final Report to Community

Communicate to and with stakeholders

April-May

Evaluate

- ◆ Measure outcomes
- ◆ Compare outcomes to anticipated results
- ◆ Problem solve
- ◆ Celebrate achievements!

Communicate to and with stakeholders

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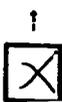
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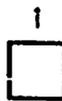
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