Focused on Student Success:
A Five-Year Research Study of Models, Networks, and Policies to Support and Sustain Rigor and Relevance for ALL Students

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The grant supported key aspects of the Model Schools Conference hosted each year by the International Center for Leadership in Education. Preconferences provided state and national education leaders a unique venue to connect with local school agencies, conference attendees were connected to high-performing schools from across the nation and the 10 focus states, and schools learned valuable implementation strategies for bringing best practices back home. For details of additional support individual schools received, see the "Overview of Grant and Goals" section.

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Overview of Grant and Goals

Models, Networks, and Policies to Support and Sustain Rigor and Relevance for ALL Students 2005–2009

The Successful Practices Network (SPN), the International Center for Leadership in Education (International Center), and the Council of Chief State School Officers (CCSSO), with support from the Bill and Melinda Gates Foundation (Foundation), embarked on a five-year high school initiative to identify, analyze, enrich, and disseminate the nation's most successful schoolwide practices and policies as a way to achieve a rigorous and relevant curriculum for all students, with a particular focus on classroom instruction and effective learning. The Quaglia Institute for Student Aspirations partnered with this group in 2009–10 to provide research support for the initiative.

Building on the 2004 initiative Bringing Best Practices to Scale, this initiative was designed to bring state education leaders to the forefront in providing professional development support to up to a hundred highly successful high schools and, based on the lessons learned from them about effective curriculum and instruction, to identify policy and regulations to support fundamental, systemic restructuring of all of our nation's high schools.

One phase of this project was to focus annually on the attributes, instruction, and classroom practices in 25 schools with proven success to identify what sets their classrooms apart: the teaching practices, curricula, and assessment strategies that make them successful. The initiative was to then help replicate these successful practices in 75 promising schools. The student populations in all of these public schools were to reflect the diversity of students in the district; socioeconomic status would range from high need to average need.

The promising schools, selected from the Bill and Melinda Gates Foundation's 10 focus states, were to receive targeted technical assistance and resources related to the best practices of the proven schools. Special emphasis was to be placed on instructional tools/strategies to achieve a rigorous and relevant curriculum and on using data to align standards and community expectations with curriculum. The purpose was to transform these promising schools into proven models of success.

These were the goals of the initiative:

1. Develop comprehensive criteria (a) to identify and evaluate high schools that are proven models of success based on student achievement, attainment, and other measurable data,

and (b) to identify and monitor promising models of success that represent a variety of approaches and instructional and curricular philosophies.

2. Use these criteria to select up to 25 proven high schools annually from across the country that best exemplify the achievement of academic rigor and relevance for all students.
3. Conduct site visits and develop case studies for up to 25 proven models of success.
4. Create a national repository of best practices for wide dissemination.
5. Use criteria to select up to 75 *promising* schools from the Foundation's 10 focus states and provide support and assistance through the SPN, which will also provide guidance for continuous improvement to the *proven* schools.
6. Support additional schools in SPN.
7. Bring effective practices to scale through the Model Schools Conference, organized involvement with other Foundation grantees, and participation in statewide meetings and commissions.
8. Study selected high schools through a five-year trend analysis.
9. Develop policy recommendations and white papers for national and state leaders based on a five-year trend analysis.

Annual Services and Support Provided to the 75 Promising Schools

- Strategies to ensure a rigorous and relevant curriculum.
- Data to align standards and community expectations with curriculum.
- Tools, guidance, targeted technical assistance, and resources related to best practices of proven schools.
- Support, materials, and professional development to become a proven model of success with a culture of continuous improvement and sustained initiatives featuring:
    - Use of cutting-edge curricula and innovative classroom practices.
    - A nurturing culture of shared values, such as setting high expectations for *all* students and creating a common vision of what constitutes high-quality teaching and learning.
    - A safe, supportive, and validating learning environment.

  - Strong relationships created between adults and students.

- Site visits to provide additional technical assistance.
- Two-day training session prior to the annual Model Schools Conference, plus participation in a three-day conference for five instructional leaders from the school (conference fees paid for all; lodging/travel expenses paid for one).
- Five-year SPN membership, which provided:
  - Personalized service: School is assigned a member of the International Center staff as its personal Network liaison to guide action planning and to facilitate requests for information, advice, and best practices from other members and from master teachers/senior consultants.
  - Members-only communications and information through three monthly technical assistance bulletins, a monthly newsletter, white papers, reports, and public relations materials about the school's involvement in the Network.
  - Regional meetings and online professional development focusing on the Rigor/Relevance Framework®, developing Gold Seal Lessons, and applying the Learning Criteria.
  - Podcasts on a variety of professional development topics and webcasts featuring Bill Daggett, Ray McNulty, and senior consultants.
  - Network-secure website that offers a virtual coaching component to help find solutions to issues related to curriculum, teaching methodology, and school organization. The website also provides articles, announcements, and opportunities to engage in discussions with other members and Network staff.

Executive Summary

Almost immediately after *No Child Left Behind* was enacted in 2002, educators realized its focus on outputs would narrow the education agenda to high-stakes assessments and teaching effective test-taking strategies. Judging the quality of a school on test results became an instant reaction.

In 2003, representatives from the Bill and Melinda Gates Foundation, SPN, CCSSO, and the International Center for Leadership in Education sought to expand school quality measurement

beyond traditional "state testing requirements." This research grant, "Models, Networks and Policies to Support and Sustain Rigor and Relevance for ALL Students," was also to investigate the critical factors that influenced the improvement on those measures over time. Finally, these results would influence decisions of policymakers when the *Elementary and Secondary Education Act* (ESEA) is reauthorized in 2010. The Quaglia Institute joined this partnership to bring additional research expertise and experience in qualitative data collection and analysis.

Three questions drove this inquiry:

- Using multiple measures that are balanced for state levels of proficiency, what factors contributed significantly to success?
- What common experiences or opportunities exist across the highest performing schools?
- What replicable cultural factors emerged that impact student performance?

Ten states were identified to participate, and 75 schools were selected to engage in the foundational research and dissemination of the grant findings. Schools selected for this study were chosen on the basis of their ability to rise above the singular expectation of high performance on state tests and set an example for others on how to redefine "proficient" for all students.

Key Findings

The researchers found five key themes in each of the schools that emerged from the data analysis and subsequently refined in the qualitative research.

Leadership: A clear sense of purpose that empowers staff to engage with students, colleagues, and community toward a clear purpose and common vision.

High expectations: For both academic performance and student opportunities for college and workforce readiness.

Relationships: A school community that explicitly values, nurtures, and develops relationships as an integral part of its successful learning environment.

Student opportunities: Successful schools had a myriad of academic and personal skill development opportunities for students.

Professional culture: Teachers, administration, and staff work to consistently collaborate toward goals with a clear focus on continuous improvement, often finding unexpected solutions to complex problems.

The research team was surprised to find that many other traits did not emerge as critical factors. These included class size, the middle school feeder system, and technology resources. The top schools showed the full range of these variables, preventing any from emerging as a critical factor.

Methodology

To understand the successful practices and cultures of high-performing schools, a mixed method multiple-case study research design was used. A multiple-case study was used to gather more reliable data. "The evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being more robust" (Yin, 2009, p. 53). To first establish criteria for measuring school performance, partners of the grant built the Learning Criteria model, designed to help schools turn their beliefs about education, students, and learning into priorities that could be measured and monitored over time.

The Learning Criteria has four dimensions:

1. **Foundation learning:** How well students learn in English language arts (ELA) , mathematics, and science

2. **Stretch learning:** The degree to which students experience rigorous and relevant learning beyond minimum requirements

3. **Learner engagement:** The extent to which students are motivated and committed to learning; have a sense of belonging and accomplishment; and have relationships with adults, peers, and parents that support learning

4. **Personal skill development:** The level to which students develop personal, social, service, and leadership skills, as well as positive behaviors and attitudes

SPN staff and coaches gathered data on the 75 targeted high schools from the inception of the project and began the process of classifying data into each of the four areas. All data procured was

maintained in organized databases or spreadsheets, with the most comprehensive spreadsheet containing scores on the Learning Criteria indicators. The other databases contained scores from three project-administered instruments measuring school processes: the Organizational Health Instrument (OHI), the My Voice™ student survey, and the School Improvement Rubric (Rubric). Given the volume of existing data, one of the first tasks confronting our researchers was to examine the databases to better understand what was available across all the schools and what additional information would be needed to answer the research questions. To this end, we conducted an Evaluability Study, undertaking a series of preliminary analyses including frequency runs for all outcome indicators and an exploratory factor analysis of the process variables. The primary goal was to select the final variables for the study and, in particular, the variables that would comprise the Learning Criteria Index (LCI).

Ultimately, the data collection efforts resulted in a fairly complete data set for the following six outcome variables:

- State assessment test scores in reading/ELA: percentage of students at or above proficiency
- State assessment test scores in mathematics: percentage of students at or above proficiency
- SAT scores: total score: verbal plus math
- Attendance rates: average daily attendance
- Graduation rates: cohort rate
- Dropout rates: total grades 9–12 dropouts ÷ total 9–12 enrollment

A major issue for the selection process, then, was how to summarize data across all SPN schools to make meaningful statements about change and overall school performance. The method selected relies primarily on *z* scores, which measure the distance of a score from the mean in standard deviation units. The use of *z* scores facilitates comparisons across states by putting all test scores on a common scale, regardless of the original metric used. However, *z* scores do not take into account the relative difficulty of state tests and standards. To deal with that matter, we converted the *z* scores to a National Assessment of Educational Progress (NAEP) metric based on a methodology used by the National Center for Education Statistics (NCES) in a comprehensive study of the U.S. educational system. The NAEP, also known as the Nation's Report Card, provides a uniform measure of student achievement that is independent of state tests. By applying the NAEP conversion, we were able to place state test scores and standards on a common scale, in effect, and

thus provide a more credible indicator of state-by-state assessment results.

The following indexes were calculated to identify the top-performing schools in the project and to guide the selection of the schools that are included in the qualitative portion of the research study:

Process LCI: Six variables comprise the Process LCI: 2007 scores from the OHI, My Voice™, and Rubric, and 2006–07 change/progress scores from the same three instruments. To combine the scores and thus form the composite, we converted each school's score on each variable to a *z* score relative to other schools in the data set; the *z* scores were then averaged to create the final process index. Given the underlying factors measured by the OHI, My Voice™, and Rubric, we can say that the Process LCI assesses three essential preconditions for learning: organizational health, school membership/belonging, and implementation of exemplary teaching and learning practices. The Process LCI comprised 15% of the Final LCI.

Outcome LCI : The Outcome LCI also consisted of six variables: 2007 scores from the ELA/NAEP, Math/NAEP, and SAT; and 2007 attendance, graduation, and non-dropout rates. As with the Process LCI, the outcome scores were combined by converting each school's score on each variable to a *z* score and then averaging the *z* scores to create the final outcome index. The outcomes conceptually align with the *Learning Criteria* categories of Foundation Learning and Learner Engagement. This component constituted 30% of the Final LCI.

Progress LCI: The Progress LCI measures the ability of schools to enhance the performance of students from one year to the next in areas of achievement, attendance, graduation rates, and non-dropout rates. As such, the index consisted of five variables: school progress from 2005 to 2007 on the ELA/NAEP, Math/NAEP, school attendance, graduation rates, and non-dropout rates. All progress scores were combined by using *z* scores in the same manner previously described. This Progress LCI constituted 55% of the Final LCI. It received more weight in the final composite to recognize growth and improvement.

Ranking Process: All the schools were ranked in the data set according to the Final LCI. In addition, the school lists were organized for the three components of the final composite (i.e., Process LCI, Outcome LCI, and Progress LCI). Within these four sets of rankings, we identified the top and bottom quintiles, that is, the highest ranking 14 schools and the lowest ranking 14 schools. We then developed the following decision rules to arrive at the final designation of proven schools:

1. A top performer on the Final LCI must *not* appear in the bottom quintile on any of the LCI components.

2. A top performer on the Final LCI must have data on at least 12 of the 17 variables (75%) that comprise the LCI components (i.e., minimal missing data).

3. A top performer on the Final LCI must have been engaged with the assigned school coach and resources supplied by the partnering organizations.

From these criteria, nine schools emerged as candidates for further study. The research team evaluated the group of schools for the subsequent qualitative study and sought to narrow the study to a group that was diverse in school size, demographics, and resources.

Qualitative Study

After schools agreed to participate in the research study, four-person research teams conducted extensive fieldwork over the course of three days. Data collection involved four techniques: document analysis, semistructured interviews, classroom observations, and student shadowing. These techniques were used as a method of triangulation and a way to increase the trustworthiness of the study (Maxwell, 2005).

The interview process involved focus group and individual interviews with separate student and staff groups. This technique allowed for both the observation of participants interaction on a topic as well as an in-depth understanding of a person's opinions and experiences (Morgan, 1997). Each school arranged for random focus group interviews with four groups of students. Students were divided according to grade level. Researchers also conducted one on one interviews with two students at each school. Principals were asked to choose students who struggled in school yet did not drop out. Some students struggled academically; others struggled socially. Over the course of three days, researchers spoke with a minimum of 35 students per school. The selection of staff focus group participants was random. Researchers conducted five to six teacher focus groups per school, as well as two individual teacher interviews. The leadership team at each school also participated in a semistructured interview.

All focus group interviews followed a semistructured interview protocol to add consistency to the process. The interview process involved two researchers, one of whom conducted interviews in all five schools. All interviews lasted 60 minutes. Interviews were audio recorded and transcribed.

A third researcher shadowed students over the course of the three days. A minimum of two students were shadowed per school. Students were chosen to be shadowed based on the following criteria: a student who attended the school all four years, was not considered an exceptional student for academic achievement, and one whose experience at the school was varied.

A fourth researcher conducted classroom observations. These observations sought to understand the types of instruction common in the school, the types of learning activities students were engaged in, and the dynamics of effective learning. Classroom observations lasted anywhere from 10 to 30 minutes depending on the lesson. The number of classroom observations per school ranged from 20 to 40. Immediately following the completion of the three-day visit, all researchers shared and discussed their ideas to assist in the coding. Documents were collected at each school site. The documents included schedules, websites, handbooks, course brochures and descriptions, and student handbooks, as well as examples of student work. In addition, teachers and counselors gave the researchers material they believed was relevant to understanding their school.

After each school visit, all researchers submitted their notes and summary findings to allow the lead researcher to craft a 10-page individual case study of each school. Individual case studies were presented to school leaders as a member check.

Data Analysis

Data analysis was iterative throughout the process. Researchers continually read notes, discussed findings, and asked questions. Researchers' input, transcripts, and documents were used to develop codes. The first-level coding consisted of creating a matrix to ensure that all interview questions were answered. Any missing data was requested from school leaders. When necessary the researchers asked for student or teacher input on questions that were not fully explained. The second level of coding was deductive and involved codes developed from the research questions. Specifically, codes were developed related to practices, relationships, professionalism, leadership, and classroom rigor. A third level of coding was concept driven (Gibbs, 2007). The concepts originated from the LCI and the construct of rigor, relevance, and relationships. Finally, pattern coding was used to pull together all the levels of coding. For the cross-case analysis, a matrix was used to organize individual schools according to the cross-case themes.

Trustworthiness

The researchers followed Creswell's (2003) strategies for ensuring the trustworthiness of this study. These strategies include triangulation, member check, rich thick descriptions, clarification of

researcher bias, peer review and debriefing, negative case analysis, and external audit. The only strategy not employed in this study was an external audit. The strategy of negative case analysis is significant for the trustworthiness of this study (Maxwell, 1994). When the researchers found a theme in one of the school's case was different from the others, it was analyzed rather than dismissed.

Saunders Trade and Technical High School, Yonkers, New York

Saunders Trade and Technical High School (STTHS) is one of five high schools in the Yonkers City School District. A large city incorporated in 1872, Yonkers is often referred to as a suburb of New York City but actually is the fourth most populated city in the state. Today Saunders is open to male and female students from all sections of the city. Except for the Technological Sciences program, there are no special entrance requirements. Students and parents choose Saunders, and admission is granted on the basis of a citywide lottery. Currently, there is a waiting list to enter the school.

The school has received numerous awards and recognition including designation as a New American High School and a National Blue Ribbon School by the U.S. Department of Education and designation as a New York State School of Excellence by the New York State Department of Education. It was also awarded Exemplary Status by the Middle States Association. Most recently, Saunders received the bronze status from *U.S. News and World Report* for its ability to serve all students well, its college readiness programs, and for its student performance on standardized tests.

For the school year 2009–10, the school enrolled about 1,400 students, 53% boys, 47% girls, with about 114 teachers employed. Whites constitute 31% of the student body. There is one Native American student; 7% Asian American; 45% Hispanic, and 17% of African American heritage. Only 2% are English language learners; 76% qualify for free or reduced-price lunch. Those with disabilities comprise 8% of the student body. Attendance rate is 97%.

Nationally, the average performance of African American, Hispanic, and Native American students is lower than that of white and Asian American students on state assessment tests. Similarly, students from low-income families do not usually perform as well as students from higher income families. However, when the subgroups of race, ethnicity, disability status, gender, English proficiency status, and income are examined at Saunders, these trends do not hold.

Withrow University High School, Cincinnati, Ohio

Withrow University High School (WUHS), a four-year college preparatory high school of approximately 750 students, is a magnet school of choice in the Cincinnati Public Schools (CPS) system. Withrow currently operates two academic programs: Withrow International High School and Withrow University High School. The Withrow University program opened up to high school freshmen in the fall of 2002. This class became Withrow University's first graduating class on May 19, 2006. The International Program at Withrow University dates back to the 1980s.

WUHS is an urban institution with a student population that is 94.9% African American, 1.8% white, and 2.2% multiracial; 17.6% of the students have disabilities, and 59.4% qualify for free or reduced-cost lunch. Over the past five years, the attendance rate has risen from 89.9% to 97.7%. In the past year, 91.3% participated in the American College Testing (ACT) exams.

Withrow has a six-period schedule with 55-minute periods. Teachers teach five classes and have one period for planning. A Saturday program provides students with a variety of options including Ohio Graduation Test (OGT) preparation, remedial work, and tutoring. The annual five-week Summer Bridge Program provides freshmen with social and life skills training, literacy skills, algebra preparation, and the Bridge Assessment (a pretest of grades 9 and 10 skills). The end product is a student profile for every freshman.

This year, 20% of the seniors are taking dual-enrollment courses. Honors-level classes are available to all students in the core areas; a third of the student body is enrolled in such classes. The next step in offering a rigorous curriculum will be the addition of Advanced Placement (AP) classes and increasing the number of students securing State of Ohio Honors Diploma credentialing.

High expectations for academics and social interaction are clearly in place. The commitment by the administration and staff to establishing an environment conducive to learning is initiated with the Summer Bridge Program for freshmen and continues through the completion of the Graduation Audit Binder. Curriculum and instruction are driven by ongoing efforts to create a foundation of rigor. The offerings have been enhanced each year, and the next steps will include a strong focus on increasing rigor and relevance in the curriculum. A special focus in the past two years has been in literacy across the curriculum.

Withrow University High School is a mission- and vision-driven school. Its mission statement, "We will empower students to be life-long learners by promoting high expectations, rigorous instruction,

CPS academic standards, community service, and family support within a safe environment. No Excuses," applies to all facets of the school. Principal Sharon Johnson is the "guiding spirit" for the mission. She expects that the mission will be lived daily.

All stakeholders are aware of and committed to the school's mission. Teachers are highly supportive of it and participate in professional development activities that assist them with its implementation. Parents are included via a variety of strategies, and students see their administration and teachers as family.

WUHS is a "school of choice" that has demonstrated that students who are socioeconomically at risk can complete a rigorous high school curriculum and demonstrate academic proficiency. The high school administration has been given the opportunity to truly lead, evidenced through hiring motivated staff, establishing rules and regulations, and setting high academic and behavioral expectations for students. In 2007, the school received the Bronze award from *U.S. News and World Report*, earning recognition nationally for its dedication to its students and providing high rigor and high relevance and expectations for all their students. The school supports a very active alumni association with more than 25,000 members.

Newport High School, Bellevue, Washington

The largest of four high schools in the Bellevue School District of Washington, Newport High School (Newport) continues to grow, due in part to its excellent reputation. Currently, this comprehensive high school has a student body of approximately 1,678, most of whom are white and Asian American. There are 33 languages spoken at the school, with 25% of the students speaking a first language other than English. To receive a diploma, students must earn 23.5 credits with a minimum cumulative 2.0 grade point average (GPA) and at least 40 hours of community service. Newport was recognized as a National Blue Ribbon School in 2003–04, was a finalist for the Intel/Scholastic Academic Excellence Award in 2004–05, and continues to rank in the top 40 high schools in the nation according to *Newsweek* magazine. Last year's four-year graduation rate was 96%; the dropout rate was 2.2%. Approximately 95% of graduating seniors go on to college, with 81% enrolling in four-year universities. Newport, the district, and the entire school community are committed to the goal of preparing all students for successful experiences in college, a realistic objective in light of the fact that nearly all district graduates enroll in college within a few years after high school graduation.

Raleigh Charter High School, Raleigh, North Carolina

Raleigh Charter High School (RCHS) was founded in 1999 in the heart of downtown Raleigh, North Carolina. The charter school is based on a college preparatory program that combines a rigorous honors-level curriculum with relevant, real-world field experiences. In its first year, the school attained the state's highest End-of-Course test scores, and in 2001 RCHS became the first high school in North Carolina to be named a School of Excellence. Since its inception, Raleigh Charter High School has received numerous honors and awards for its academic achievements, including being ranked number nine in the United States on *Newsweek's* Challenge Index in 2005 and making the list again in each following year. All students are encouraged to attain their own level of excellence in academics and to discover how to make contributions as citizens of the world. A strong emphasis is placed on student participation in community service programs. Experiential education is stressed and facilitated through planned "Flex" and "Ex" days.

Colton High School, Colton, Oregon

Colton High School (Colton), a small rural high school in northwest Oregon, has been at the forefront of high school reinvention efforts in Oregon. The dynamic staff works closely with the 258 students, 88% of whom are white, with the remaining 12% comprising a mix of cultures; 15% of the total population are eligible for free and reduced lunch. The student-to-teacher ratio of 16.8% has been instrumental in achieving an attendance rate of 91.3% and a graduation rate of 96.1%. Math, science, English, and social science teachers have participated at the state level in developing common curriculum goals, content standards, grade-level benchmarks, scoring guides, and writing questions for Oregon Assessment of Knowledge and Skills (OAKS) tests. In 2008–09, 82.1% of Colton sophomores met or exceeded the OAKS assessment levels in reading, an unprecedented 16% higher than the state average. This same year, 62.5% of Colton's sophomores met or exceeded the OAKS assessment levels in mathematics, exceeding the state average by 8.9% and their own 2007–08 scores by 19.7%. In science, the gains were an outstanding 21.3% in 2007–08 and 10% in 2008–09. Colton staff uses data to evaluate curriculum, improve teaching practice and assessments, and embrace technology enhancements. In addition, they actively participate in setting improvement goals and action plans for the school.

Cross-Case Analysis

The qualitative study supports the finding of the LCI that these five schools are among the top schools in the five-year study. The extensive interviews and observations into the schools in this study revealed five common themes. Although not all of the particularities that contribute to the effectiveness of each school are replicable, the themes that emerged as we looked across the schools are applicable to any school, anywhere. These themes were as follows:

- **Purpose:** Having a mission and or vision statement that is deeply held, widely known, and liberally applied
- **High expectations:** Extending high expectations of everyone by everyone with commensurate levels of support to help meet expectations
- **Relationships:** High levels of trust and respect among students and staff
- **Student opportunities:** Mission-driven opportunities for students to be engaged in their classes and in the life of the school
- **Professional culture:** A deeply held commitment to collegiality and peer support among the administration and teachers

Purpose

School leaders have known for a long time that effectiveness is a function of having a coherent and cohesive purpose. Whether the personal effectiveness of "beginning with the end in mind" (Covey, 2004), the business effectiveness of companies that go from "good to great" (Collins, 2005), or the organizational effectiveness of systems that have a "shared vision" (Senge, 2006), effective people and institutions spend energy, time, and resources developing a common purpose and ensuring that all stakeholders "own" that purpose. An organization's purpose can be variously expressed in vision statements, mission statements, founding documents, and publicly stated objectives and core values. Thus it comes as no surprise that the foremost characteristic of the high-performing schools studied is a coherent and cohesive sense of purpose. Each school's purpose, based in part on its students, its community, and the common beliefs of the educational professionals in that school, is unique. What the schools in this study *share* is the evidence of the importance of having a purpose that is genuinely and widely shared, lived, aligned, and dynamic.

Whether referred to as "ownership," "buy-in," or "enrollment," the purpose the schools in this study have set for themselves are collectively held by all stakeholders. Students, classroom teachers, administrators, parents, school safety officers, cafeteria workers, and custodians all know their school's vision or mission statement and all wholeheartedly assent to it. Although the development of each school's purpose (i.e., by committee or consensus) or the way enrollment was achieved was not sought, the study did find in each school, a widespread comprehension of the goal they together are trying to achieve. On the My Voice™ student survey, 61% of students at Withrow University High School agreed that "I know the goals my school is working on this year." This is 24% higher than the national average *(Figure 1)*.

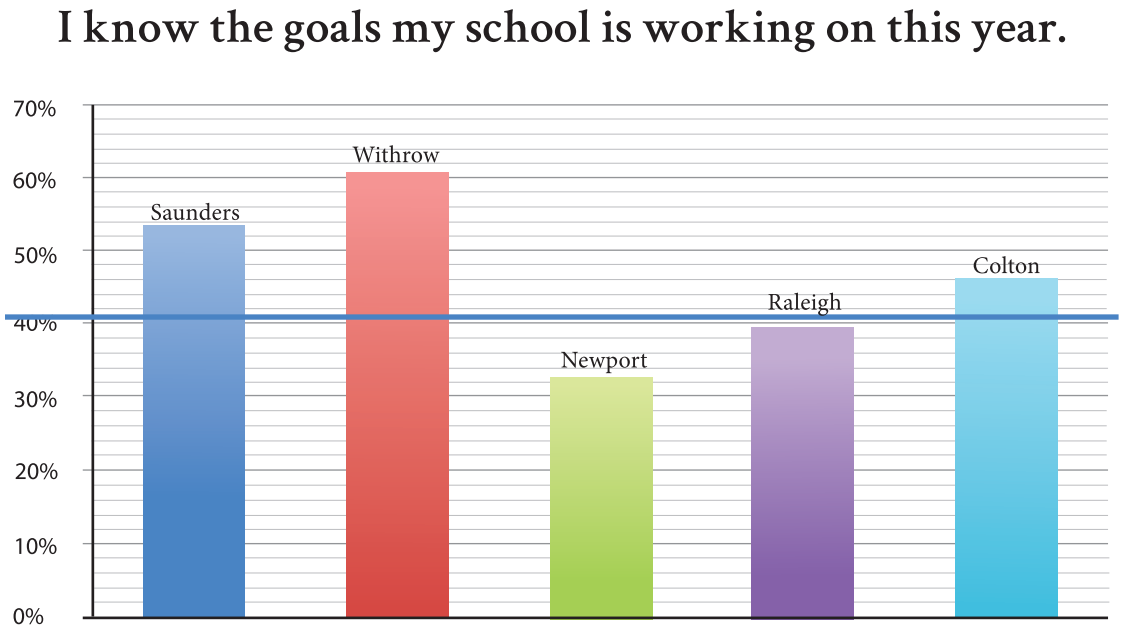

Figure 1

Students we spoke to at Withrow were clearly focused on the mission of getting into college. When asked what motivated him to do well in school, a male senior at Withrow related,

> *My dad. He did attend college but did not finish. He went until his junior year. And my mom never attended college. When I came here as a freshman they told me that I was college-bound and I was all 'whatever.' But now when I look at my life and look at the way they were brought up and the way I am being brought up, I look at my little brother and sister, and it motivates me to be more. I don't want to be struggling like my mom and dad. I am going to college.*

At Raleigh Charter School in Raleigh, N.C., the mission includes the statement "We graduate citizens of the world by creating an interconnected learning environment that combines a demanding college-preparatory education with a curriculum that teaches and models citizenship skills." Again, the significance of this mission was not only in its lofty words — "citizens of the world" — but that *everyone* knew it and lived it. Raleigh Charter's mission statement is active in both of its primary purposes: (1) developing contributing citizens of the world and (2) creating a challenging and interconnected learning environment. We found these two aspects of school life at Raleigh to be so much a part of the fabric of daily existence that it was challenging for staff and students to articulate *how* and *why* Raleigh is the way it is. Teachers who had been at the school since the beginning said, "It's a bit mysterious to me." When pressed, others said, "I really don't know. It just sort of happens." This did not stop anyone and everyone from referencing the mission statement, however, and explaining how they are living it. At Raleigh, practicing the mission was more important than having a complete grasp of its meaning.

What is also significant is that *whatever the common cause* — whether keeping students in school and safe as in Saunders or having students get into a first-choice college as in Newport — *the purpose itself is an active force in the daily experience of school.* Far from the dead documents framed in many principals' offices, the schools studied have mission statements they *live*. Colson High School's newly developed mission statement — "Rigor, Relevance, Relationships: Preparing for Excellence, Preparing for Life" — is evident in the depth of relationships between students and teachers, in the personalized and relevant instruction that emerges from those relationships, and in the academic challenge posed by relevant instruction. As one Colton student shared, "The best teachers understand that different people have different learning styles. They try to find ways for everyone to understand the material in their own way."

Withrow's mission statement ends with two words: "No excuses!" In many schools, this would make for a nice hallway banner or punchy brochure caption. At Withrow, "No excuses" is on the minds and lips of every student and staff member as they move through their day. It *drives* them. Students at Raleigh Charter High School frequently referenced the school's mission statement "to graduate contributing citizens of the world" as accountable for academic success, high levels of participation in co-curricular activities, and as the rationale for their service learning program. Each of these schools is purpose driven in that same way.

In these schools, *an outcome of having a shared and lived sense of purpose is a high degree of systems alignment.* Having all participants assent to and live the school's mission statement is one thing. Ensuring that the resources, schedules, professional development, student services, curriculum,

co-curricular activities, and all other school systems are functioning in support of the school's mission is another. A significant finding in these high-performing schools is that all of the oars are in the water and rowing in the same direction. We uncovered little to no evidence of departments or areas working at cross-purposes. Guidance departments and administrators support classroom teachers who support students. Schedules are at the service of learning and the school's mission. The athletic program is fully supportive of classroom teachers. For example, all of Raleigh Charter High School's field trips are oriented toward the mission of teaching students to make a contribution to their community and the world. There were no field trips that were simply end-of-year time fillers. Raleigh's curriculum and schedule were direct expressions of its mission's critical importance of having an interconnected learning environment. At Withrow where many students are involved in sports, students told us their coaches had a common message that they were students first and athletes second.

This does not mean there is no disagreement about how to achieve the agreed on goal. It does mean that all appeals to one approach over another must stand on the merit of being in greater alignment to the school's larger purpose. We also found that *where the system is lacking in reference to the stated purposes of the school, interventions are promptly put in place to create greater alignment.* In Newport, data suggests that a small minority of students are struggling with the school's mission of high academic achievement due to a lack of personal relationships with teachers. The school is in the process of addressing this concern through Professional Learning Communities and is looking for ways to improve relationships with students to better help them excel academically, Newport's stated purpose.

Finally, the schools studied have a dynamic sense of their purpose. *Having set their sights on a common target that they successfully achieve, these schools are not content. They embody the notion of continuous improvement by frequently reexamining and raising the goals they set for themselves.* Despite the focus on citizenship and service, several staff members at Raleigh Charter School told us, "We are still learning what citizenship means." Saunders's consistent ability to form relationships with students who typically do not do well in school has become the foundation for considering new ways of challenging students academically. Now that Withrow has had success in helping students pass the OGT, staff are looking into ACT and AP as the next level of performance assessment. Newport's vision of rigor currently has an effective and strong college preparation focus, but they continue to pursue innovative programs to exceed college readiness standards.

High Expectations

The shared and lived purpose of each school as articulated in their vision and mission statements is largely transmitted to all members of the community in the form of high expectations. More than setting a bar and simply waiting for success, these schools make clear their expectations *and* their willingness to help all members achieve the goals they have agreed on. There are actually four interrelated findings here:

1. *Expectations are closely related to the school's purpose.* For example, expectations in Newport are related to its mission of providing students with a "top-of-the-line college preparatory education," whereas in Saunders the expectations are connected to the mission of forming relationships with students. Colton's expectations are a weaving together of relationships, relevance, and rigor.

2. *Expectations are held of everyone by everyone.* Administrators have high expectations of staff, and they in turn have high expectations of their administrators and one another. Administrators and teachers have high expectations of students, and the students feel free to have high expectations of their teachers and administrators. Students have high expectations of one another.

3. *Expectations, whether hierarchical or peer, are accompanied by an equal level of hierarchical or peer support*.

4. *High expectations are internalized by each group.*

Administrators in these high-performing schools have explicitly high expectations of their staff. A teacher at Withrow made clear that the "No excuses" tag line in their mission statement applied to teachers as well as students. When asked, "What distinguishes this school from others where you have worked?" she replied, "High expectations. We are treated by the principal as professionals, and it's made clear that there are no excuses as professionals." A first-year teacher at Withrow when asked, "What factors contribute to the success of this school?" responded, "The level of accountability expected. If you are going to fail a student you have to be able to back it up. Did you call a parent? Did you offer makeup work? Teachers have to work harder not to allow students to fall through the cracks. You get called to the principal's office and asked, 'What steps did you take to keep this student from failing?' If a student fails, you don't get to just shrug your shoulders at end of the quarter." Not yet halfway through her first year, this newly minted teacher is fully immersed in a culture that expects her best from the outset.

At Saunders, the administration's high expectations of teaching staff are lived out in monthly observations of all classrooms. One teacher reported that observations are such a regular part of the professional culture at Saunders that at times he did not know he had been observed until he received an evaluation in his mailbox. As noted, Saunders's mission also highlights the importance of staff-student relationships. As a result, there is an *expectation* at Saunders that staff foster these relationships. The librarian shared a story of when she was first hired. When told she needed to get to know her students, the librarian replied, "I have 1,500 students!" The front office promptly handed her a yearbook and responded, "You better get started then."

The flip side of high expectations of staff is a low administrator tolerance of failure to strive toward expectations. The study revealed administrators' unwillingness to let staff slide for any reason (e.g., whether new or near retirement). At Colton, teachers noted the administrative focus on knowing students as individuals beyond performance in classes: "It is a constant here at Colton. Everyone is expected to know kids. It is modeled everywhere you go, and if you want to be a part of the faculty, you have to keep up." The staff in each of these schools made it clear they do not feel the administration has any higher expectations of staff than administrators have of themselves. The administrative teams we interviewed, from principals to assistant-principals to the administrative assistants supporting them, are all, in a word, "driven." They clearly have reserved the highest expectations for themselves. Their sense of professional pride, long working hours, and willingness to go an extra two miles are an unspoken signal to their staff that they are not asking anything of their staff that they are not willing to do themselves.

The general effect of this is to create what Greenleaf termed "servant leadership" (1977). Interestingly, administrators' expectations of teachers *combined* with their on-display expectations of themselves create a model of leadership that is thoroughly supportive rather than authoritarian. There is a sense that given their high expectations, administrators know they have to do whatever they can to support staff. At Withrow, a science teacher shared,

> *I have taught in elite suburban schools. Coming here to an urban environment, I was very impressed with the amount of support I get here in terms of equipment. It doesn't matter what it costs, administration will get it for you. A while back I mentioned — I didn't put in a request, I only* mentioned *— that we had too few microscopes, and in a month we had fifty. [Ms. Johnson, the principal] got them. I walked into my lab one morning and there they were.*

In these schools, this high level of expectation is not merely a hierarchical phenomenon. Each school has an atmosphere of collegial expectation that is no doubt influenced from above but obviously is fully invested in by peers. Both teachers and students are aware that a teacher's commitment to Saunders is a commitment to longer days and an expectation that you will stay after school, oversee clubs, and be there for students. When teachers at Withrow were asked, "How does this school's definition of an excellent teacher translate into the way teachers are evaluated?" a teacher replied, "Well, the district doesn't have an evaluation that measures that. So there is nothing formal that takes it to that level. We are talking about the climate here, the expectations we have for one another." In a later interview, another teacher corroborated this when asked about decisions regarding how and what to teach are made. She responded, "We base it on data. Mostly test scores. The district gives us a guideline, but we have higher expectations." As with administrator expectations, this peer expectation in each school is accompanied by an equally high level of collegial support (see the finding in the section "Professional Culture"). At Raleigh, nearly every teacher we spoke with shared the pressure they feel being in such an elite teaching corps *and* the enjoyment they felt at having it motivate them. Everyone at Raleigh Charter, including the administration, is on a one-year contract. One teacher said, "I like being on a staff where I know I can be fired for no other crime than being a mediocre teacher." Another said, "I left a tenured position in a public school to come teach here. I like not having tenure. I want to be worthy of still teaching here each year."

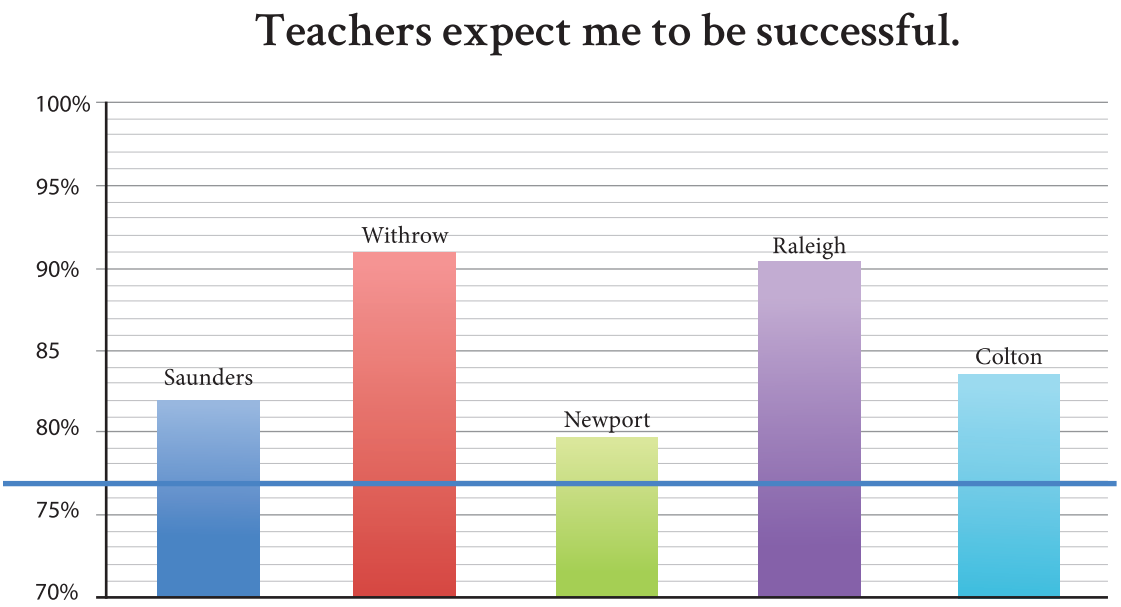

Figure 2

Ultimately, the expectations administrators and teachers have of their students has the greatest impact on their success as schools. On the My Voice Survey™, the students of all five schools studied agree in greater percentages than the national average that "Teachers expect me to be successful" (Figure 2). This agenda of high expectations was referenced in all schools by students, teachers, and administrators as a major factor in their success. In Newport, students report they are expected to take at least three AP courses. Typically, students take four years of math and three years of science, although this exceeds state requirements. At Withrow, when students were asked about how school prepares them to be a leader, a student responded, "They set high expectations. When you meet them, they reward you, and if you are struggling they help you." A teacher remarking on what defined an excellent teacher at Withrow said, "Having high expectations of students from their first year here. I am not going to dumb down my curriculum for these kids, it's insulting to them if I expect less." At each school, administrators also communicated their expectations directly to students. Withrow students regularly attend pep-talk assemblies led by Ms. Johnson. According to one student, "Ms. Johnson gives us a speech. Plus, she has college banners hanging up in the hallways. She has high expectations."

Expectations of students in these schools include behavioral expectations. The average attendance rate in Yonkers, N.Y., high schools is 91%, and the New York State average is 93%. Saunders Trade and Technical High School boasts an attendance rate of 97%. The administrators' commitment to the school and students is evident by the fact that if students don't show up at school, the assistant principals go to their homes. Withrow has a school uniform that includes a shirt, tie, and jacket or cardigan. The uniform is praised by staff and students alike and for many is a source of pride. Students shared that they enjoy being recognized by members of the community as Withrow students because of the uniform. Seventy-six percent of Withrow students report being proud of their school as compared to the national average of 49% (Figure 3). When asked about factors contributing to the success of the school, a Withrow teacher shared, "Discipline is pushed. It starts with the uniform, but it extends to everything." At Newport, discipline issues simply do not affect the learning environment. Teachers express that students want to be at school, and they spend very little time correcting student behavior. The expectation is that "things don't escalate here."

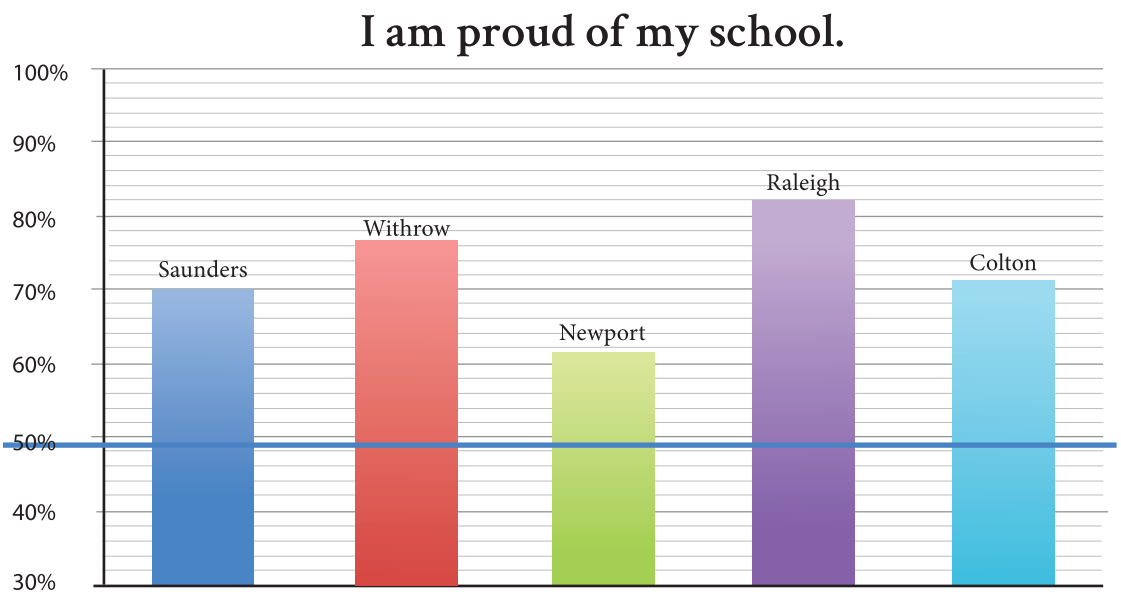

Figure 3

As with the administrative support that accompanies their expectations of teachers, these academic and behavioral expectations of students by adults are matched by a high degree of student support. In all the schools, this is experienced on a personal level in the form of care. At Saunders, where the expectation to develop student relationships is considered part of their purpose, a student shared, "I say that our school is outstanding because our teachers care about us. I know from experience that teachers support you. It feels like a family. I was intimidated coming here, and now I love the environment. Teachers dedicate a lot of time to their students. If you need help, they will help you." Many at Withrow also used the term *family* to describe the environment. When asked how the school was helping students be the type of person they want to be, a senior and captain of the school's drum line related, "Teachers put pressure on you to be the best you can be. No matter what you do, they tell you that you can do your best. But it's good pressure in the form of showing you they care. When people show you they care, you can be like them." In describing the "seriously high expectations" Ms. Johnson had of students who attended Withrow, one student remarked, "We call her the Queen Mother. She expects a lot, but you know it's because she cares."

The support provided to students so they can meet their schools' high expectations is not limited to the emotional support provided by teachers and administrators. Each school has structural elements that support student success in all areas. To assist students in their academic endeavors, the last 30 minutes of every school day at Newport are dedicated to tutorial time. Students can seek out teachers to provide extra support or help. Students expressed that this time was very important and

allowed teachers to get to know them as individuals. Twice a week the school has an extended tutorial until 5:30. Similarly, Withrow academic support came in the form of "7th Bell." Both teachers and students are required to be in school for the last period of each day, but the time is discretionary; no classes are scheduled. Students are expected to seek out the extra help they need, make up missed assignments, see guidance counselors, and so on. The number and scope of support services at Withrow is extensive. Families Forward, an in-house social services agency, helps students with a variety of personal and home-related issues. Many responsibilities that would typically fall on a guidance department are handled by Families Forward, freeing counselors to provide academic- and college-related support.

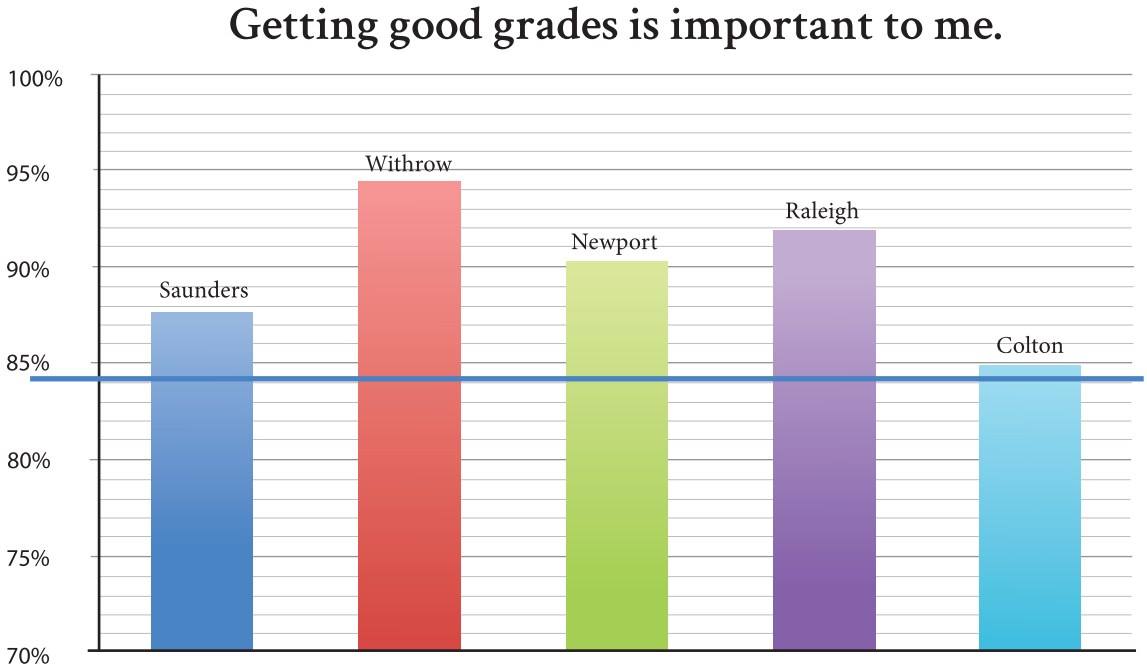

Figure 4

A final consistent finding in each school is that students have internalized these high expectations, resulting in high personal expectations as well as peer expectations and peer support. In all five schools, students respond to the statement "Getting good grades is important to me" at a rate far higher than the national average (Figure 4). At Newport High School, students push each other to take AP courses and are actually embarrassed to tell their friends if they decide *not* to take an extra AP course. At Raleigh, 79% of students agreed with the statement "Students are supportive of each other." The national average is 38%. When asked what motivated them to do well in class, many Raleigh students told us it was their peers. We heard, "You see other students engaged, and that helps you get engaged." Another student shared, "There is a positive peer pressure here. We

support each other. We discuss books. Everyone wants everyone else to do better."

At Withrow, we heard the following exchange a number of times:

RESEARCHER: What motivates you to do well in class?

STUDENT: My peers.

RESEARCHER: How do your peers help you?

STUDENT: They push me do better, to keep doing my work. They just keep pushing me to keep going. If I don't understand something they show me how to do it; they push me until I get it right.

RESEARCHER: Can you give me an example of that?

STUDENT: Like, my friend was helping me with this math problem. I did not understand it at all; we were not getting the same answer. He showed me how to do it to get the right answer. I tried it over again and got the same answer he did.

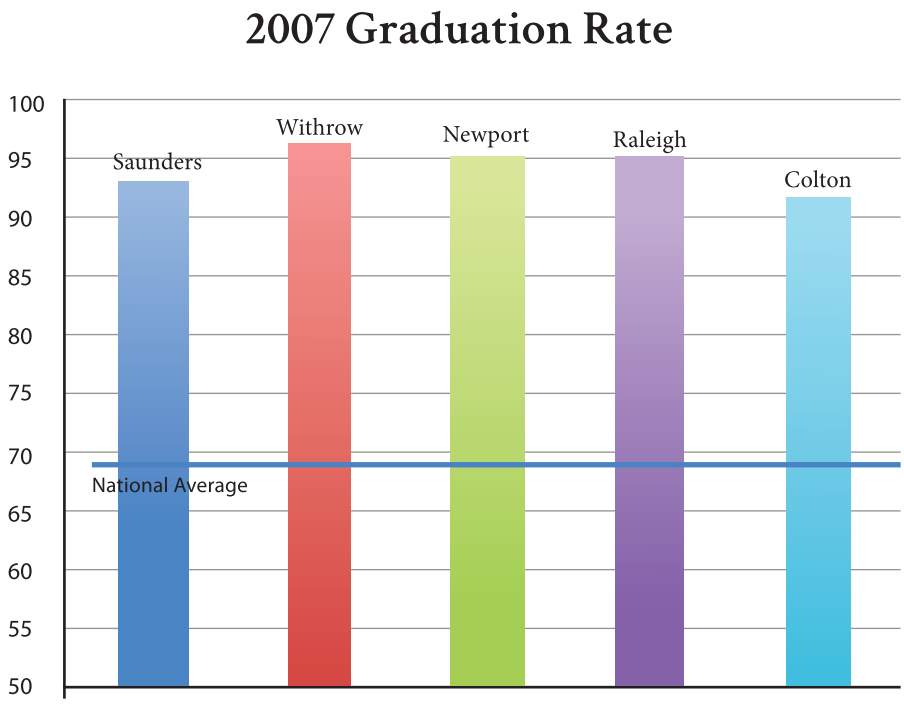

Figure 5

This conversation is paradigmatic of what we heard in each school at all levels and in every direction. First, expectations held of students had been internalized. Second, again and again we heard the frequent mention of positive peer pressure/expectations in the same breath as support/help: "If I don't understand something, they show me how to do it; they push me until I get it right."

A fundamental underlying assumption of our entire educational system is the expectation that students will graduate from high school prepared for college or a career. Perhaps there is no greater indicator of the successful attainment of high expectations in these secondary schools than their four-year graduation rate. Each school has a graduation rate that exceeds that national average by over 20% (Figure 5). Especially noteworthy is Saunders Trade and Technical School, which raised its graduation rate from 77% in 2005 to 93% in 2007.

Relationships

If a shared purpose as communicated through high expectations represents one pole of the efforts of these high-performing schools, the effort to accept, understand, and know their students for who they are is the other. The phrase "meeting students where they are" suggests understanding the needs and hopes of a student. In these high-performing schools, it is necessary to add the

phrase "and get them to where they need to go." The school studied accept responsibility for not only embracing the challenges that come with empathy and understanding, but also for designing a program of studies that is responsive to an empathetic and understood student need and that truly prepares students for a world they will encounter when they leave. Some may fear that a relationship-oriented approach leads to a decline in academic rigor. We found the opposite to be true in these schools. The effort to genuinely connect with and know students inspired teachers and students alike to expect the best of one another academically. More importantly, it gave teachers insights into how to challenge and motivate their students to do their best work.

Once again this is lived out by each school in the personal efforts of its staff and through programs and policies that intentionally establish and nurture these relationships. As we have seen, students at all of these schools believe that teachers care about them. According to the My Voice Survey™, 72% of Saunders seniors indicate they have a teacher who is a positive role model for them. When students were asked, "Does at least one adult in the building know you well?" students overwhelmingly responded, "They all know us well."

Relationships at Withrow are shaped by the focus on academics. When asked the same question, nearly all Withrow students answered in academic terms:

> Student 1: They know how hard I work, what my [academic] weaknesses are.
>
> Student 2: My history teacher. She knows how to get down to my level and teach me what I don't understand.
>
> Student 3: My biology teacher. Sometimes I want to give up, but she won't let me. She breaks it down so that every kid can understand it, not just a few.

From their side of the desk, teachers at Withrow characterized their relationships with students in this same way. One teacher reported, "I don't let them or myself off the hook. I have to do everything I can. I had a student passing with A's and B's in all subjects except algebra. I physically walked him to tutoring." Although the relationships described at Withrow do not have the same personal quality they do at Saunders, what they share in common is an intentional, respectful, and consistent connection between teachers and students. In fact, the average in agreement of these five schools to the statement "Teachers respect students" is 12% higher than the national average of 54%.

As with other findings, the individual efforts of the staff are supported by systems for creating and sustaining relationships with students. Entering Withrow students spend two-weeks in a summer

bridge program designed to orient them to the school, its expectations, the staff, and one another. This is especially important because Withrow is a school of choice in the city of Cincinnati, taking students from a number of feeder schools. Saunders, which of the five schools studied placed the most emphasis on positive student-teacher relationships, has what they call "magnet" classes. These serve as a home base for students and provide a small learning community where teachers connect with their students for a three-year period, three hours a day. According to the magnet teachers, they get "a lot of face time with students." Saunders also recently developed a mentoring program for 9th and 10th graders. Twice a month, teachers meet with small groups of students intentionally designed so that students meet with teachers they do not have for any of their classes. This provides an opportunity for students to connect with more adults. Mentors follow students' academic and personal progress throughout the year.

This finding was most highly expressed at Raleigh Charter and discussed in their case study under the theme "Accepting Adolescents as Adolescents." Everything at Raleigh from the discussion-oriented pedagogy and late start time to the lack of power struggles and informal relationships of trust and respect enjoyed by teachers and students, was keyed into the fact that teenagers are a work in progress. The simple policy of holding no grudges revealed a willingness to accept, understand, know, and work with adolescent students for the experiment in identity formation that they are.

Student Opportunities

Related to the preceding, but standing apart in its own right, a fourth finding in each school is the impact that knowing their particular students has on the opportunities the school provides for students. At Newport, the staff's knowledge of students leads to a student-driven schedule. The school day consists of seven periods to maximize electives. Recently students have expressed a desire to take more racquet sports, and the physical education department has adjusted its course offerings accordingly. At Saunders, after exposure to all majors as freshmen, students "ballot" for a major during their freshman year with the hope of being placed in their first choice. Subsequently, each student fulfills state academic requirements, but also completes a three-year technical, vocational, or occupational major along with related courses to earn a specialized Saunders diploma.

At Colton, students repeatedly spoke about the experience of teachers adapting for them what was being taught to the full group. Students consistently indicated that teachers gave them the time they needed to complete assignments. This was seen both as a way of empathizing with

students' difficulties and as a way many teachers held students accountable for their work with the expectation that they would complete all of their assignments. Students characterized the extra time and effort teachers put in before school, during unassigned time, and after school as "common." Additionally, in certain classes that are known to have a teacher for multiple years (e.g., Colton has one Spanish teacher who teaches all levels), the students expressed how teachers continually start fresh and resist comments such as, "Last year . . ." That is not to say teachers do not build on experiences with students. Rather they recognize that personalized learning adapts positively to students as they grow and does not hold them back because of what they may have done in the past. One student expressed this best when he said, "I wasn't a very good kid my first two years here. But now I want to go to [the nearby community college], and my teachers keep encouraging me. It's like I got to start again."

Withrow, although coed, has gender-separated classes. This allows teachers to employ pedagogy and content that engages the genders differently. In math classes, boys work on sports statistics. In language arts, girls read "chick books." Boys and girls alike also praised the social benefits of this approach, equally affirming that they learned better without members of the opposite sex as a distraction. A quarter of students nationally say they are not involved in co-curricular activities. At Newport this number is 13%; at Raleigh Charter, 9%. Because so many of Raleigh's co-curricular offerings are developed and led by students, 58% of students at Raleigh selected the "Other" category for co-curricular. The national average for "Other" is 22% (Figure 6).

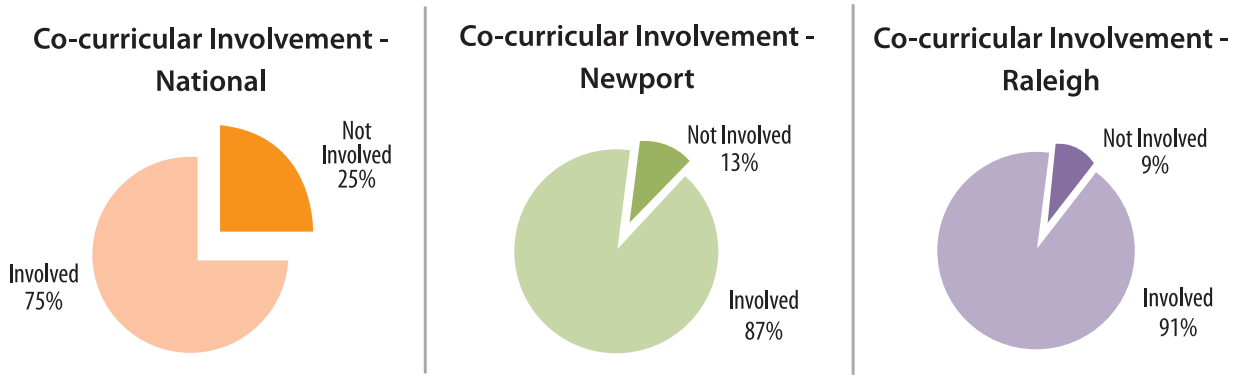

Figure 6

Professional Culture

The fifth finding in these high-performing schools, and the one that, in a sense, binds the others together, is a strong sense of professionalism among the staff. This is manifest in the above-and-beyond efforts of the entire staff in each school, as well as the collaborative learning community

each staff member has come to enjoy. This professional culture is something we found administrators deliberately foster. As one administrator at Withrow told us, "We work hard at changing the mindset of some teachers. High school teachers can sometimes act as if their classroom is their little domain. We work at getting them to see the bigger picture." Although cultivated in this way by sound instructional leadership, staff in these schools consciously choose to be colleagues to one another on a day-to-day basis. If there were outliers, those who did not buy into this culture of peer cooperation and accountability, we did not meet them either in interviews or observations. Missing were the separate "camps" that sometimes inevitably flock together in a high school or any sense that veterans and newcomers were somehow at odds. Again this does not mean we found no disagreement among professionals in these buildings. It does mean that we found a professional culture willing to deal with differences face to face, rather than with blame or gossip.

The first factor Principal Humble mentioned when asked to what he attributed the success of Raleigh Charter was the staff. He repeated again and again throughout conversations, "We have a great staff." When we asked him what defined a great teacher, he said, "A mind at work. Our teachers are kind, caring, and *smart*. I know those first two words are redundant, but the redundancy is important. Our teachers are really, really smart and they really, really care." The hiring process at Raleigh is rigorous. Once hired, there is an equally careful orientation and mentoring process. Even for veteran teachers, there is ongoing peer observation both formal and informal.

At Newport, department collaboration is endemic in the school culture. Teachers expressed their willingness to share materials, ideas, and advice with colleagues. One teacher summed up how this affected his teaching: "I don't have to do everything myself. I can focus on the curriculum." Collaboration is evident through sharing lessons and planning. On Wednesday afternoons, teachers have a curriculum release day to plan and work together. The district does not direct this teacher time. This type of trust and empowerment from both district and building administration is also a hallmark of these high-performing schools.

At Withrow, teachers meet weekly in teams. Teams are free to use the time in whatever way they find most productive. A science teacher related that team meetings are used to evaluate each other. They reflect on past or proposed lessons and ask, "Is this rigor? Is it inquiry?" They discuss misconceptions. Another teacher said that team meetings are used to check progress with one another and to collaborate across the curriculum. "The English teacher reads what the history teacher is doing in her class, and they discuss it so both can connect the dots for the students." Yet another teacher said meetings are used to "keep challenging one another to move to a higher

level." In addition to teaming, teachers report that if no students need help, teachers frequently use 7th Bell to seek help from other teachers. Withrow also develops collegiality through cooperative learning. Staff meetings are used to have teachers present professional development and share best practices. One practice that surprised us but that staff members seem to appreciate is having a class of students' test scores put up in meetings for everyone to see. The entire staff reviews how a particular English teacher's students fared on a recent standardized ELA exam. According to one new staff member, "It's a little nerve wracking, but the competitiveness drives you. You want to see who won, and you know that if you are not doing well, someone in that room is going to help you." At Withrow, all new teachers are also assigned a mentor. When asked how her teaching has changed since being at Raleigh Charter, a teacher said, "There is more of a willingness to fail. I used to want all my ducks in a row, you know, never show mistakes. Now I see the students are relieved when I make a mistake, and I am human. We are working together. I used to be scared to death if I didn't have every minute covered."

Similarly, teachers at Saunders shared there is a positive peer pressure to do the best job they can, and they work together to make this happen. To better understand each other, last year the vocational, technical, and occupational teachers held workshops for academic teachers to learn more about their specific programs. This event resulted in academic teachers making soup in the culinary program, wading in streams for the environmental magnet, and taking photos with the graphics department. Collaboration is also evident through cross-disciplinary work. Currently, all magnet classes include writing activities as part of a school-wide focus on writing. Both magnet and academic teachers regularly inquire about what the others are doing in their classes. Collaboration is a necessity for the senior projects, which require students to show their learning through a project or demonstration. For example, a student who was working on a senior project related to biodiesel fuel worked with a teacher in the heating lab to help complete her senior project, even though she did not take any classes from this teacher. This process included generating biodiesel fuel in her major, then bringing fuel to the heating teacher and students to measure its efficiency in the furnace.

One measure of a school's professional culture is the outcome of its Organizational Health Inventory (OHI). The OHI assesses the organizational well-being of a school by asking all stakeholders about the school's leadership capacity. The instrument is particularly concerned with whether leaders model perpetual learning and thus have a positive impact on the professional culture of their staff. In 2006, when schools were selected for this study, Colton, Raleigh, and Withrow had the number two, four, and five OHI scores, respectively. Of the 71 schools studied, Newport ranked 17th and Saunders 45th. The average OHI of participating schools was 54% (Figure 7).

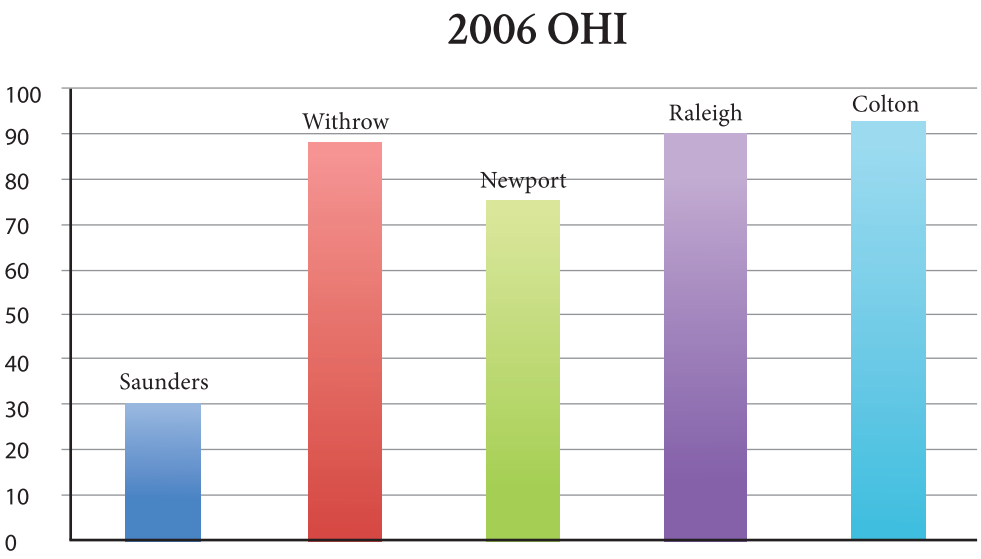

Figure 7

Evidence for Colton's OHI ranking was found during the visitation. There have been substantive changes in the administration of Colton High School and the Colton school district over the past few years. Quantitative data reflects the strong positive attitudes of teachers and staff toward the former principal. When the research team visited Colton, teachers and students in focus groups indicated they believe the new leaders have improved the school. They all felt the new principal was approachable, a good listener, and willing to try others' suggestions. Yet it was also clear that leadership was not restricted to designated administrators. Although a very small teaching staff, it was evident that new teachers were inducted into the culture of Colton by their peers. Instructional coaching happens among teachers and administration both formally and informally. These practices, along with others, indicate that leadership at Colton is an empowered, shared experience, not merely the purview of one person. The small size of the administration and the capacity to handle myriad responsibilities has both allowed and encouraged empowered teachers to be responsible for many administrative tasks.

Although difficult to single out any of these findings as standing above the others, we deliberately chose to give the strength of the intentionally cultivated professional culture in each of these schools the pride of final place. In these schools, the collegial culture clearly enables the sense of purpose, high expectations, relationships, and student opportunities described in the other findings.

Case Studies of Schools in the Qualitative Research

Colton High School

Colton High School (Colton) is a comprehensive rural high school in Colton, OR, an unincorporated community in Clackamas County. About 40 miles southeast of Portland, Colton is located on Milk Creek, a tributary of the Molalla River near the western Cascades. Once a significant logging town, horticulture and Christmas tree farming dominate Colton's economy today. The Colton School District has a total enrollment of about 750 students from a population of about 2,500 people. Home to the 2005 Oregon High School Teacher of the Year and the 2006 Middle School Principal of the year, Colton School District has long been recognized for its exceptional staff. The three Colton schools also benefit from a high degree of volunteerism by parents, who assist in classrooms, sponsor special activities, raise money to support school activities, and participate in school events. Colton High School's student body of about 250 is approximately 88% white, with the remaining population a mix of ethnic groups. Lacking ethnic diversity, the school makes a special effort to invite international students for a year of exchange. With the teaching staff numbering 14, the student-to-teacher ratio is about 18:1. Typically, the graduation and attendance rates are around 90%. Fifteen percent of students are eligible for free or reduced-price lunch.

Due to financial constraints on education funding in Oregon and its geographic location, Colton operates on a four-day schedule that results in 144 attendance days for students. Teachers work an additional 20 days on Fridays when students are not in attendance. Since adopting this schedule seven years ago, there has been no decrease in test scores and very little discussion about reverting back to a five-day week. Each period of the seven-period day is 59 minutes long. Because there is basically one teacher in each course, the class size can range from 15 to 35 students, depending on student selection.

Because of Colton's size, the research team was able to interview nearly all of the teaching staff and a significant portion of the student population and to observe nearly all classroom settings. The schedule also allowed for substantial time with building and district administration. Additionally, the research team spent after hours with a mix of staff, a board member, and administration at meals prepared and served by students. This intensive study revealed several themes that were consistent and prevalent across study groups:

- A culture of close relationships

- Overcoming limitations
- Personalized teaching and learning
- An empowered staff that owns responsibility

A Culture of Close Relationships

In this tight-knit group of students, staff, and community, we found a commitment to the value and importance of the relationships among all stakeholders. Colton is a small school in a small community where children typically grow up alongside each other for many years. One student remarked, "At least half the kids in my [senior] class I have had in my class since first grade." Another student noted, "I feel like I can be myself here because everyone knows everything I have ever done in my life." A teacher who lives in town, coaches youth and high school sports, and had his children go through school in Colton added, "At times you have to figure out where the ball fields end, where the school is, and where home starts." However, the inherent traits of a small community are not merely accepted as a given; they are intentionally valued, nurtured, and encouraged.

This commitment to relationships was immediately evident as the research team arrived in the main office. A new student was there for her first day. As in most any high school, she sat in the main office with her mother as she completed her registration. The young lady seemed quiet and shy when responding to questions and filling out her information. By the afternoon, many students could tell you her name, where she lived, and at least one or two details about her. On the second day, teachers were already talking about what this new student liked, how her adjustment to Colton High School was going, and her needs as a student and a new member of the community. One teacher shared, "Oh, she'll need a buddy in my class to make the transition quickly, so I have her connected to another student, and the three of us are meeting this afternoon." When we observed the new student on the second day, she was already allied to a group of students between classes. Other students affirmed that this effort extends to all students long after their first day.

Among students there is a culture of respect for each other's talents. In formal interviews and through student shadowing, students expressed considerable respect for individual talents. "[Joe] is so talented at music. I wish I were, but it's just work for me. I know he comes in early in the morning and stays late after school. He also competes. It's amazing." When another student was hesitant to discuss his interests outside of school, other students stepped up for him. "He's the best baseball player. I know he loves football, too. Why don't you tell them what you do to keep

in shape?" This prompting led to the student opening up and sharing quite a bit about his exercise regime and dedication to sports.

Students also described the reality of the economic conditions and the effects on their attitudes about each other. One student noted how much he was working outside of school to help his family. A student volunteered this comment: "I know he's like a lot of us who are trying our best to keep our priorities straight. It is why I am working so hard at school now. It's not just for my parents, but for my future too. I am thankful I go to school here where I get a chance at a future if I work for it." The silent nodding among other students in the focus group affirmed the empathy they share for their peers and the way the economic struggles of families serve to knit the community together.

Although these comments reflect some of what was said among the students, they do not capture the noticeable and consistent respect in classes and hallways. Colton students are helpful to one another in classes by sharing materials willingly, making room at work tables, noting good answers, and generally smiling and being positive with each other. The research team all observed and noted that students do not just feel the safety that passes as an acceptable minimum for community in many schools. The deeply imbedded culture of relationships makes Colton High School a place where students *want* to be.

Overcoming Limitations

Smaller schools are faced with challenges in offering a breadth and depth of course offerings in comparison to larger secondary schools. Key constraints include:

- *Teacher certifications*: Many teachers have to teach many different courses in a semester and in a school year.
- *Enrollment*: With fewer students and smaller class sizes, fewer classes can be subscribed.
- *Facilities*: Some courses, especially in the sciences and career and technical education, require specialized equipment and classroom requirements.

Colton High School has built and sustains a culture that meets these challenges beyond the typical expectations of a small school. For example, most teachers at Colton have more than three preparations. The offering and scheduling of courses is driven by student interests, and teachers step up accordingly. Teachers challenge themselves to fill unique course needs such as a class called

Medical Opportunities or specialized offerings in music. Students understand this may mean having a teacher multiple times during the day. They comment that this is not a negative but a chance to see teachers with diverse interests working to make options available to them. Students appreciate this extra effort in the form of a return of effort on their part.

Students describe this situation with humor. "Sometimes when I am having a bad day, I don't want to see the same teacher later on, but then it reminds me to apologize for being such a pain earlier in the day . . . and most of the time that helps [laughter]." Other students report on the appreciation for the added work that teachers face: "I know how hard he works at each course. He is always preparing new things for each course he teaches — and he has at least five different ones. I can't believe he does that for us." Teachers recognize the students' role in this situation as well. "Sometimes I know they don't want to see me again later in the day, especially if they didn't do well on a test in the other class. But because they have to, we find we have a much healthier relationship in situations like that. I think that relationship is what keeps them trying in each class." One teacher noted, "Sometime it gives me a longer view on the whole learning process, knowing that I will have [the same student] more than once a day and many more times in the four years of high school."

Personalized Teaching and Learning

Students at Colton feel connected to their teachers, which is not simply a function of students having a teacher multiple times during their four years. It could also be a formula for relational boredom at best and contempt at worst. At Colton, there is a consistent pattern of positive relationships between teachers and students that is deliberately fostered as a desired quality, over and above the sheer quantity of encounters.

Teachers noted the administrative focus on knowing students as individuals beyond performance in classes. "It is a constant here at Colton. Everyone is expected to know kids. It is modeled everywhere you go, and if you want to be a part of the faculty, you have to keep up." Another teacher noted, "I used to think it was just part of the job and our small school. But I put effort into knowing if my students are having a bad day or spending extra time with a student who needs it. I feel like that is recognized by [administration] as doing a good job." Colton uses student survey perception data as part of an overall data view of school performance.

Students repeatedly spoke about the experience of teachers adapting for them what was being taught to the full group. Students consistently stated that teachers gave them the time they

needed to complete assignments.

An Empowered Staff of Teacher-Leaders

During the time period of this study, there have been substantive changes in the administration of Colton High School and the Colton School District. Yet indicators show a continuous pattern of high-quality leadership in the school. One interpretation of the data suggests that at Colton High School, teachers accept responsibility for the issues that are of primary concern. This includes ownership of the positive results that emerged in this study.

The quantitative data of this report reflect the strong positive attitudes of teachers and staff toward the former principal. When this research team visited the school, the current principal, teachers, and students in focus groups indicated they believed the new leaders have improved the school. Students and teachers alike respect the current principal. They all felt he was approachable, a good listener, and willing to try different things that were suggested. Although a very small teaching staff, it was evident that new teachers were inducted into the culture of Colton with a lot of support from their peers. The fact that they spent time in each others' classrooms to observe best practices is worth noting and certainly contributes to the high student achievement that takes place at Colton High School.

It seems that the culture of Colton defines leadership as an empowered, shared practice. Instructional coaching happens among teachers and administration both formally and informally. The small size of the administration and the capacity to handle the myriad responsibilities has both allowed and encouraged empowered teachers to be responsible for administrative tasks.

In summary, the close-knit community of Colton is the foundation of a school that is not content with mere familiarity as a basis for relationships. Students and staff at Colton work on deepening relationships with peers and between one another. An outcome of that partnership is a mutual willingness to work hard academically. For teachers, this means a willingness to adapt learning at both the school level (e.g., more preparation time, a longer school day, etc.) and at the classroom level (e.g., using personalized knowledge to individualize instruction, adjusting for seeing the same students multiple times per day, providing a fresh start, etc.). For students, this means matching the effort they see their teachers making with focused attention in classes, completing assignments, and seeking help when needed. Despite the turnover in key administrative positions, Colton teachers provide the leadership necessary to take advantage of the opportunities afforded by being a small school while simultaneously overcoming the limitations imposed by that same fact.

Raleigh Charter High School

In 1998, a board of directors made up of business professionals, experienced educators, and college professors established Raleigh Charter High School (RCHS). A nonprofit corporation established by 8th grade parents at the Magellan Charter School supported them in this effort. These parents wished to continue the secure, nurturing, academically enriched education that children experienced at the middle school, and they sought to expand this opportunity to include more Raleigh-area students. RCHS is a college preparatory school that combines a demanding honors-level curriculum with the enrichment of numerous field experiences. In 2001, RCHS became the first North Carolina high school to be named a School of Excellence. The school has been ranked as high as 9th in *Newsweek*'s Challenge Index (2005) and as high as 20th in *U.S. News and World Report*'s *America's Best High Schools* (2008).

Charter, as students and staff refer to it, is characterized by its small size, involved parents, highly qualified teaching staff, and students who are full partners of the staff in their education. The school currently enrolls 542 students in grades 9 through 12 and enjoys a student-to-faculty ratio of 19:1. In the absence of busing, parents drive and carpool students to the school. All students are encouraged to attain their own levels of excellence in academics and to discover how to make a contribution as citizens of the school and world. College scholarship awards to last year's graduating class of 125 students totaled $4,696,000.

From the outset the researchers wish to acknowledge our bias that Charter is a school to which we would all eagerly send our children. In this we are not alone. For the past several years, only one in eight students who apply to RCHS as 8th graders are admitted. The only requirement for application is a recommendation from a student's 8th grade math teacher that he or she is ready for Algebra I. Applicants are placed in "The Fish Bowl" and chosen by lottery during a public meeting. As Principal Tom Humble explained, "I tell people that night, 'This is going to be a sad day for many of you. I apologize in advance for that.' Then I say, 'Please remember that you are here as observers only. This is not meant to be interactive.' It can be difficult." Many of the teachers at the school have children who are currently enrolled at RCHS or who have graduated. State law allows a lottery preference, along with the Algebra I requirement and a one time application for siblings and children of the principal, teachers, and teacher assistants. One teacher with three children all under age 7 said, "It's the ultimate perk."

The staff members of RCHS are very much aware they are a charter school and, as such, are open to criticism from those who wish to label the school as elitist. They stress that although they are a

college-bound school, they are not a school for *gifted students* as that term is used in education. They draw from over a hundred middle schools and, as one administrator told us, "Not every 8th grade math teacher has been accurate in their recommendation." They are mindful of the self-selection that takes place as a result of parents who care enough to seek out a charter school and drive their children to and from school, the lack of a football program, and the ability to maintain smaller student enrollment. As word of mouth spreads and the applicant pool becomes more diverse, the staff of Charter believe the profile of each entering class will continue to approximate other schools in the area. They are actively working to improve diversity in the school.

No small disadvantage they bear is what Dr. Humble refers to as the "stiff economic headwind" of having to pay rent. The school is located in the historic and charming, if layout challenged, Pilot Mill. Although the owners of this building - listed in the National Register of Historic Places - are sympathetic, Raleigh does not reside there rent-free. RCHS receives the same amount of money from the state and county as public schools, yet those schools do not pay rent. At the time of the visit, the RCHS board of directors met and agreed to move forward with a plan to purchase a permanent home for the school so they would eventually own the building that housed their school. All who commented on this knew a mortgage would have no short-term benefit on their finances, but it remains an important undertaking if RCHS hopes to sustain itself in the long term. Students we talked with were fully aware of this pending change in location and the reasons for it.

These themes emerged as contributing to the success of Raleigh Charter High School:

- Citizens of the world
- "Active, social, and creative" learning
- Accepting adolescents as adolescents
- A highly qualified staff

Citizens of the World

Raleigh's mission statement reads as follows:

> *Raleigh Charter High School challenges college-bound students in a creative and supportive atmosphere to become knowledgeable, thoughtful, contributing citizens.*
>
> *We graduate citizens of the world by creating an interconnected learning environment that*

> *combines a demanding college-preparatory education with a curriculum that teaches and models citizenship skills. We involve our students in many resources of downtown Raleigh — the government, performing arts, social services and the international community. RCHS will be a place of opportunity for highly motivated students and actively involved parents*

We found that the significance of this mission was not only in its lofty words — "citizens of the world" — but that *everyone* knew it and lived it. Raleigh Charter's mission statement is active in both of its primary purposes: (1) developing contributing citizens of the world and (2) creating a challenging and interconnected learning environment. We found these two aspects of school life at Raleigh to be so much a part of the fabric of daily existence that it was challenging for staff and students to articulate how and why Raleigh is the way it is. Teachers who had been at the school since the beginning said, "It's a bit mysterious to me." When pressed, others said, "I really don't know. It just sort of happens."

One interesting factor, given the profound focus on citizenship, is that many staff members say, "We are still learning what citizenship means." Dr. Humble shared, "One of the founding ideas of the charter was citizenship. We are still trying to understand what that means. It's a work in progress. We know more now than we did when the charter was written. It is much more holistic and integrated now than it was then." Recently Raleigh developed a "Citizenship Preamble and Principles," which states, in part, "We believe that a foundation of knowledge and ethics must precede all intellectual inquiry" and concludes, "We shall become good citizens."

In this effort, service is an integral part of the program at Raleigh. Yet there are no service "hours." In other words, Raleigh has no service requirement. No one is keeping records. Students at Raleigh simply do service. They are told in orientation, "Your high school career at Raleigh is not going to be about taking or what you can get out of being here. It's going to be about what you give, what you contribute and give back." Service has two expressions at Raleigh: to the community in and around the school and the world and to the school in the form of leadership and co-curricular involvement.

Much service to the community is carried out on six Community Workdays, three in the fall and three in the spring. The design of the program includes teacher and student choice, multi-age groupings, one-year commitments, and experience and education in four service areas. Each RCHS teacher chooses an area of service to support. In the fall, students look at the service choices offered by teachers and select their top five areas of interest. One student captured the program by saying, "Service is just so Raleigh Charter. It's not a task. There are no service hours.

It's not a chore. It's applying what I learn. Choosing what you are going to do is exciting. Plus my advisor is cool. I am really helping out." Another student in that session said, "Community service is an integral part of the school's mission to be citizens of the world. I like the ones where we do something physical — plant trees, clean up a park — that kind of stuff. It's vital to the core principles of the school."

The structure includes four one-hour gatherings for education and planning and two four-hour days of service work. One student discussing Community Work Days said, "They could never be eliminated. It's part of our school mission to graduate citizens." Many students are aware that friends in other schools do service as a requirement of graduation and are grateful their experience is very different even as many of them far exceed the hours required by public school programs. One student shared, "Students have gone back and helped on their own time after the workday."

An aspect of the service program that students seem to appreciate as much as the gratification of helping others is the opportunity to relate what they are learning to the real world. One student said, "Community Work Days are a great way to apply what we are learning. We can see what people do in the fields we are learning about. It defines us." Rather than an add-on to the curriculum, service comes out of the curriculum. Thus, courses are aligned to the mission of creating citizens of the world. Required courses include AP and advanced-level environmental science, as well as three levels of civics and economics. Citizenship is a major theme in U.S. and world history classes. English teachers invite writing assignments that reflect on service and citizenship experiences. Literature is chosen with those themes in mind.

As much as community service is "so Raleigh Charter," service *to* Raleigh Charter on the part of its citizenry is even more so. Every student we interviewed listed at least two or three and frequently more co-curricular activities. This, too, is understood as just something Raleigh Charter students do. A student told us, "There are an unbelievable amount of options that connect with what you are interested in. I have an opportunity to have a real-life application of what I enjoy and love. At Charter we are developing citizenship in the United States. You are a citizen; you have to be in it for the betterment of other people." Students routinely connect their participation in school co-curricular activities to the school's citizenship theme.

This effort to create citizens of the world by expecting that students be citizens of the school begins before a student's first day at Raleigh. Each April, Raleigh hosts an accepted students day for 8th graders who have been accepted. The session is equally divided between presentations from student club and sports leaders and Raleigh's academic deans. At that early stage, students receive the implicit message that getting involved is as important as academics at Charter.

When we asked students to define a successful student, these responses were the norm:

- "It's not specifically any one aspect. It's more of an accumulation of things. There's an academic focus, but also extracurriculars are important. Clubs. Supporting sports teams."

- "Not grades. We have no ranking. A recent success we had was an "Ideas Festival." We have been trying to book a speaker on immigration. Eventually we got her to speak. That was my success, but it was shared throughout the club and adds something to the community we have here."

- "When I look up to seniors, it's not just that they are smart. They are *involved*. Sports. Drama. They make the school a better place."

- "Being a well-rounded person where you can maintain your grades but do well in clubs. *We the People* [a civics club] made state. The Science Olympiad is big at Charter. Also being able to enjoy yourself, not to be so stressed out."

- "I'm in Mixed Ensemble Chorus. I love the chorale class. It's in the middle of the day, and there are all age groups. It's a nice break from academics. You still have to work hard, but it's refreshing. If Raleigh Charter was all academics, it wouldn't be Raleigh Charter."

The following was an exchange we had with a focus group of freshmen and sophomores:

RESEARCHER: How is student success defined at this school?

STUDENT 1: It's not about grades but about how students push themselves. Students push themselves to take those higher classes and to do well in higher placement.

STUDENT 2: It's about growth. We kind of have a holistic approach; sports and extracurricular activities are important. Always pushing to do more, to have a larger impact on the community and be a better citizen.

STUDENT 3: But also knowing your limits — keeping balance between academic and extras.

STUDENT 4: Success is establishing who you are, what balance or synthesis makes you into the *person* you are, not necessarily the most academically successful. We don't know how to define ourselves yet, so here you have an opportunity to do that.

We wish to emphasize that this is a transcript of what students said, not our interpretation of what was said. Freshman and sophomores at RCHS used the words *holistic* and *synthesis*. The student shadowed by a member of the research team, when asked how Raleigh Charter has changed him, said it "changed his internal efficacy."

Given this level of involvement and service to the school, it was not a surprise when a student told us, "Key Club is the biggest club at Charter. It's not easy, but it's great." Groups are student led. A young man told us, "All the clubs I am in are student driven. Students lead and the teacher supports it. If I don't do anything, the club dies. That's real world." Many student groups meet at lunch (25 minutes); others meet after school. A few squeeze in meetings before school starts. Others meet on Saturdays. Every staff member is expected to moderate at least one co-curricular activity. Many oversee several.

The process for beginning a club is purposely simple, and students are encouraged to propose new clubs. A student explained, "One of the great things about this school is anyone who wants to can start a club. Just Dr. Humble approves it as appropriate. All you need is a teacher to sponsor you and three members. Bam, you have one. Clubs are not teacher led; they are student led." Another student related, "Freshman year I started the Ping-Pong club. It died. That's OK. There are these other things I can do." When asked about her activities, a student reported, "I am in Key Club and Quiz Bowl. Plus, I started a club: Voice for Minorities. We do something to help people in minority groups. We had a fund-raiser for albinos in Tanzania who are being persecuted. I am also in Social Justice and Amnesty International." A male student said, "I want to start a club: St. Baldrics. It's for people who are willing to shave their head for cancer research. I also started H-cubed. We help kids in this area who, when they go to the hospital, get their clothes cut off. You know? So we raise money to replace them because a lot of these kids can't afford to just lose clothes like that."

Service to the school includes participation in improving curriculum, instruction, and school policies. One student shared, "I love that the teachers hear and use student feedback to improve year to year." Another related, "I am on a committee to change a flex activity to improve a flex day that was not successful. You can see the difference that students make at Raleigh." A student in that same focus group followed with, "That motivates you because you feel you can really make a difference." Another student shared that she is on a Diversity Committee with Dr. Humble and other students and teachers to help improve diversity at the school. RCHS has a student-run Honors Council that students can opt to appear in front of instead of the administration if they run into discipline issues (e.g., cheating). When we inquired about outcomes for students caught cheating, students related that the emphasis was on discovering why the student did not have a relationship with the teacher

that led to asking for help rather than cheating and then helping them improve the relationship.

"Active, Social, and Creative" Learning

Raleigh Charter's mission statement is clear that the means of developing citizens of the world is "by creating an interconnected learning environment that combines a demanding college-preparatory education with a curriculum that teaches and models citizenship skills." Like service to community and school, this is evident everywhere at Charter. A phrase we heard again and again from staff and students in describing the curriculum and learning environment was "active, social, and creative." These adjectives are used to describe every level of experience from the policies, procedures, norms, and customs that govern the school to the fully engaging classroom lessons we observed and heard described.

ACTIVE

Active at Raleigh means at least three things: (1) students are physically active; (2) students' minds are active — questioning, wondering, reflecting; and (3) students are learning outside of the school building. First, students at Raleigh are physically moving all the time. Classes we observed rarely spent more than 10 minutes of any 45-minute period in one activity. Lessons shift from reading to conversation to listening and back to conversation with students moving chairs and desks around as needed. Classes are noisy with discussion and even arguments.

Second, students are expected to be intellectually active at all times. When we asked students what motivates them to do well in class, one replied, "Teachers. They really push for you to understand. If they notice you are not participating, they call you out." When asked to give an example, the student replied, "English. We are studying *Hamlet*. She can tell when you are not understanding, and she calls on you, 'Do you understand this?' and when you say, 'No,' she takes you through it line by line." When asked to explain and give examples of students working hard at Raleigh, a student told us, "Upper-level math allows retakes. So you seek out help, work hard, and you can replace the bad grade and really understand the material better."

Many students related that the expectation of active thinking is part of what made the transition from middle school challenging. From freshman and sophomores we heard these comments:

- "Oh yeah, it's all about learning. In my middle school if you want to know what seat work looks like: 'Here just do this: a crossword.' Well what's that going to do? It's just words. There is another path here. If you have homework, it's for a purpose."

- "They don't even collect most of the homework. It's just to make you think about what you did in class or to get you ready for the next class. So if you don't do it you are kind of out of it in class. So you still want to do it even if they don't collect it."

- "The work is all valuable and that helps you learn. It can be tedious, but there is always variety. Our English teacher gave us this really big assignment. It was these 12 questions to learn how to do literary analysis. Really hard. But with all the practice — there were three stages you had to go through, but in the end it really ingrained that stuff in my brain."

- "Middle school math seemed to be always busywork. It was the same 30 problems over and over. Here it's just five to six problems and they are all different. So it's challenging us at different levels, rather than just 30 questions repeating all the same level."

A student who had transferred after having spent freshman year in another school said, "There is a higher level of expectation here. You have to want to come here and do well. You can't just sit in class and not talk. The teachers ask, "What can I do to help you?" I was at a different school as a freshman and when I got here, my teachers jumped on my lack of participation."

There are also indications that this is sequenced throughout a student's four years at Raleigh so the highest level courses are the most active in the sense of expected student participation. In upper-level classes, students regularly do much of the teaching, having read subject material on their own and prepared PowerPoints. This conversation took place with seniors:

Student 1: A lot of the senior teachers have been forcing us to learn as if we were in college. You read, learn on your own, and then drive the discussion. There is not as much support from the teacher. That was frustrating at first, but I've grown more comfortable with it. English teachers especially. It varies from grade to grade.

Student 2: Instead of teachers saying: "Here is what this means," it's a discussion and we are forming our own ideas.

Student 3: Yeah, it's on a different level. For example, in AP Psych, you have this reading and you are expected to know this. The teacher is not checking up all the time. It progresses through the four years.

Student 1: It's easier to learn how to self-learn with the safety net of high school. In college, I think you are pretty much all on your own.

Dr. Humble, several teachers, and students explained to us that there is a "No busywork" policy at Raleigh Charter. Students are surveyed to check on this policy that applies to the classroom and to homework. Many students expressed gratitude for this policy, even though it did not lessen the amount of assigned homework.

In support of this expectation that students be intellectually active, the schedule contains "Ex Days" to deepen learning. Ex Days extend the usual 45-minute period to 90 minutes, so students meet in periods 1, 3, and 5 on Thursday and then periods 2, 4, and 6 on Friday, allowing teachers to do in-depth labs, rehearsals, seminars, practices sessions, or group work. These occur five times per year.

The height of this actively intellectual approach is in the ability Raleigh Charter fosters in its students to think about their own thinking. This meta-cognitive ability, even among freshmen, was surprising and encouraging. When we first heard a student talking in this way, it was easy to assume we were interviewing an especially intelligent student. However, it became apparent that RCHS makes an effort to teach and encourage this skill in all students. A teacher reported, "I teach a lot of freshmen and I am able over and over again to tell them why we are doing something when they ask. I can be frank about why I came up with a lesson. I do not have to keep that from them to keep them focused." Discussing field trips, a freshman told us, "We took this trip to the museum recently, and back at school our teacher asked us to relate the evolution of humankind to the evolution of our thinking in high school. You know? There are these big giant shifts in thought . . . paradigm shifts . . . and they happened in evolution and even in our own thinking as we get older." When asked to define a successful student, one student said, "At first it was doing all my work, you get used to that. Now it's thinking deeper. Getting comfortable with that. Forcing yourself to think at different angles."

Students and staff spoke highly of a class called Systems Theory in this regard. A student referenced this class when asked to give an example of students working hard:

> *Today we are studying systems theory. Trying to think of one topic from every single perspective. The idea is to synthesize all the perspectives to get a less biased perspective. I chose a band I like to write about. The teacher tells you to keep an open mind that you may not be the most qualified person to answer a question; no one might be. You need to build a general concept out of everyone's perspective.*

Several students told us that this class had "changed their lives."

Third, many learning experiences take place outside of the building on planned "Flex Days," or on traditional field trips. Flex Days allow teachers and students to explore topics in depth and often across disciplines. They occur once each semester over two successive Fridays during which regular classes are cancelled. Students meet for half-day sessions in small groups to pursue projects in a subject area. Groups often travel off campus. When you combine pedagogy that requires students to do something different every 10 to 15 minutes, engaging learning that seeks depth of understanding, a prohibition on busywork, and Flex Days, you have what the RCHS community calls "active learning."

SOCIAL

The social aspect of Raleigh's "active, social, creative" motto overlaps two themes we have previously discussed. First, the school is actively working to create a social consciousness in its students through service to school and community. Second, an underlying principle of all the pedagogy at RCHS is interaction, as distinct from presentation, lecture, or solo seat work. Students work independently to prepare for intellectual interaction later.

RCHS is also social in the emphasis placed on student-teacher relationships. There is no indication that the relationship between students and teachers is in any way adversarial. Absent is the typical wrangling about dress code, tardiness, missing homework, inappropriate remarks, and so on. The interactions we observed and stories we collected were characterized by respect and a sense of partnership. On the My Voice™ student survey, 83% of Raleigh students indicate that students respect teachers, which is 44% above the national average. Eighty percent agree that teachers respect students. One student, when asked what helped students be successful at Raleigh, shared, "Respect. The respect I have for the teachers. Even if I don't like the subject matter, I respect the teacher and the other students and you want to be part of the community. That pushes me for classes I don't like. It's about community. You establish a passion and a drive for things you don't love for the betterment of everyone."

Teachers and students both pointed to smaller class sizes as important to the Raleigh experience. Given smaller numbers, teachers are able to get to know students. When asked about factors that contribute to the success of this school, a teacher said, "Small class size. Plus we do a lot of programs outside of class that help us establish relationships and trust." Another agreed, "The needs of the individual student are a focus. Sometimes that's mandated, but we go beyond that. Maintaining that

relationship is critical."

From the student point of view this creates an environment in which they feel adults care about them. One student said, "Teachers are helpful. They know us as a person. I was planning on taking five APs, but my teacher said, 'I would rethink that.' They know us at a personal level." Several students told us they had teachers' e-mail addresses and cell phone numbers and that whenever they contacted a teacher, the teacher promptly got back to them. When we asked, "Do you feel like at least one of your teachers knows you as an individual?" we received enthusiastic agreement from all the focus groups. One student shared,

> *Dr. Genez, my bio teacher, knows me like a book. She says, "You're really tired." I can talk to her whenever. Then there is our drama teacher, Ms. Rasnick; she is almost a mom to a lot of students. It's nice to have approachable teachers. And Ms. Solomon, geometry. I was struggling and she helped turn me around. I ended with an A. The day the USC scores came in, she called home to say how proud of me she was. Math teachers are always here overtime.*

In response to that same question, another student said, "All of my teachers do! For example, my drama teacher. She knows me. She takes the time to get to know me." A student in that same focus group explained, "There is a level of respect; you get to know them as a person, and it's reciprocal. You feel like they are really invested in wanting to help you. Ms. Rasnick . . . every six weeks, we turn in journals. She knows us because she knows what we write about." A third student added, "If you write about something you are struggling with, she'll come find you. She is an extremity in that area, but there are a lot of teachers who care about you."

We could not possibly include all the stories students shared in support of this finding. The relationships of trust and mutual respect they enjoy with teachers affects everything from motivation to succeed — "Teachers have so much respect for you, you don't want to disappoint them" and "When I don't study, I worry that if I don't do well my teacher is going to say, 'What's wrong? How can I help you?'" — to course selection: "A teacher wouldn't sign my registration form because she said I was ready for a harder class; another time a teacher told me she thought I was overloading myself."

Finally, RCHS is social in the ways students interact with other students. There is very much a sense that they are all in this together. The first two days of school for freshmen are spent getting to know one another and their teachers. The small size of the entering class, typically 125 to 135 students, makes it possible for new students to interact in some form with every other incoming

student. The group is further divided by alphabet for some parts of orientation and in groups of eight for other portions, all to facilitate getting to know one another. Juniors and seniors give tours and lead other parts of the orientation. Flex 101 (a special freshman version of Flex Days) builds on those bonding experiences throughout the fall. On the second Friday of the school year, the schedule is shortened and the afternoon is spent orienting new students to the school's many clubs and sports. One student related, "Kids at other school are afraid on their first day. We don't terrorize freshmen. Here we help freshmen. There is no bullying here. Upperclassman watch over the lower class." On the My Voice Survey™, only 3% of RCHS students agreed that bullying is a problem in the school. The national average is 33%.

The peer academic culture at Raleigh Charter is devoid of competition. It was students who told us this. One student put it this way when asked about success, "We are not trying to be successful like other people. At Charter there is no competition. Everyone is coming together as one and being successful together. Teachers set that up and help us get to success that way." One element that helps create this noncompetitive culture is a lack of class ranking. RCHS takes this right up to the end; there is no valedictorian or salutatorian at graduation.

This translates into a culture of extremely high positive peer pressure. When asked what motivates you to do well in class, many students told us it was their peers. We heard, "You see other students engaged, and that helps you get engaged." Another student shared, "There is a positive peer pressure here. We support each other. We discuss books. Everyone wants everyone else to do better." When asked how success was defined for students, a student responded, "When you find your place in the community. It's easy to find success like that here. Raleigh is very open and broad. It's competitive, but not against each other. You are competing against yourself. There is support from peers for you to compete against yourself." A teacher responding to the same prompt said, "There is this straight A student; she always has been. It's a part of who she is. Her friends have been counseling her on the importance of regular sleep. They are trying to convince her that an A is okay and that there is no need for A+, and now she has signed up for a course she would never sign up for given her science/math track."

Among other things, students told us to indicate the peer culture at RCHS were the following:

- "Here smart is cool. There's lots of positive peer pressure. You don't have to hide it if you did well on a test or paper."

- "There is no such thing as weird here."

- "At other schools, they brag about having an easy schedule. Here they brag they are taking five APs. 'Man, I am only taking four' [other students laugh]. At the same time they are not degrading you."

CREATIVE

Finally, the teaching and learning environment at Raleigh is creative, which is indicated beyond the art and drama classes and creative approach to teaching and learning that RCHS enjoys. Perhaps what makes Raleigh Charter most creative is the effort to apply what is learned to real situations. This has already been noted in the community and school-based service, as well as in the field experiences. Like the other characteristics, application as an expression of creativity is pervasive and so embedded in RCHS's culture that it is difficult to isolate as a separate feature. A typical response to a question about leadership was "My citizenship is children's theater. I am in charge of it. I have branched off to doing children's theater in my neighborhood at my mom's preschool."

The purpose of class discussion was frequently articulated to be the formation and development of one's own opinion. A group of students, explaining how Raleigh Charter helps students become leaders, made these comments:

Student 1: It's the class discussions. I can form my own opinions, my own morals. I really know what I stand for now. Class debates help, which we do a lot.

Student 2: The teachers really encourage you to step forward. To take a stand. To not hesitate. They really want you to be the best you can be.

Student 3: My math class teacher puts problems on board. We can work with whoever we want. The teacher doesn't just teach it; students go out of their way to help each other to make sure everyone understands it.

ACCEPTING ADOLESCENTS AS ADOLESCENTS

The themes referenced thus far — creating citizens of the world and "active, social, and creative" learning — are tied in to a third theme we found at Raleigh Charter High School. The staff of RCHS was explicit about the effort to accept adolescents as adolescents, and the students were implicitly aware of it. Raleigh's emphasis on its own particular brand of service learning taps into the adolescent's inclination toward optimism and altruism. By integrating community and school service into the academic programming, Raleigh Charter takes advantage of that inclination. Obviously, the

"active, social, creative" approach to pedagogy takes advantage of other characteristics typical to teenagers. Maturing bodies are not forced to sit still for long periods. There is no attempt to contain maturing social skills with stifling (to a teenager) approaches to education that force quiet solo work or mere attentiveness to a lecturing teacher. RCHS has figured out how to put the energy and interests of young people at the service of *learning*, rather than — as in many schools — have teenage energy and interests at odds with *teaching*.

This effort to flow with the capacities of adolescents is evident elsewhere. The start time of school is later than in traditional high schools. Dr. Humble cited current research, and Raleigh students themselves in support of this policy. Note, too, that the schedule overall is not especially regular — there are Flex Days, Ex Days, Community Service Days, and field trips — all well known in advance. The absence of a standard schedule seems to suit the teenagers' more restless and bored-by-routine mindset.

One of Dr. Humble's mottos that several teachers repeated was "We have all the power, so we don't need to use it." They also made it clear that Dr. Humble modeled the expectation, as one teacher put it, "that students are truly given the benefit of the doubt in all cases." As a result, we observed a refreshing lack of adversarial relationships between teachers and students at Raleigh Charter. That is not to say teachers never have to correct a student or that students do not sometimes misbehave or take issue with a teacher. Rather the relationship itself in which the correction takes place is one of support and understanding, not a power play. As a result, one teacher said, "When a student messes up, when the student returns we welcome them back. We hold no grudges. That's required from the top. They can always make up work. We are not out to get them."

One student shared, "Teachers give you a lot of the responsibility. They trust you as capable. Even if you stumble, they would rather see you learn from that than take over." Another student said, "Teachers understand you are going to make mistakes." One student offered, "You learn by trial and error. You try and fail and then learn. Teachers really help, too. They give you advice. They are really thinking about that. They give you homework on Thursdays instead of on the weekend because they know you probably have things to do on the weekend." A teacher offered this comparison:

> *At the school I was at before Raleigh, kids were antagonistic; parents, too. It was us versus them. Parents always saw it just like their kids, even if it was clear what was in the best interests of all students. Administration didn't support difficult decisions. I don't have to make those difficult decisions at this school. I prevent them now. That makes me a better teacher. There were all these rules we had to enforce. I had to call a parent about her kid having detention for*

chewing gum. And while I am on the phone I am thinking, "This is so stupid."

In addition to pedagogy that takes advantage of most teenagers desire to be social, RCHS pays particular attention to helping students find their niche. This phrase, "find a niche," in reference to students, peppered conversations that ranged from academic success to service to co-curricular activities. The staff at Raleigh takes seriously the power and influence of peers at this age and does everything it can to monitor and recognize students who get lost for not fitting in and the distractions that adhere to the effort to fit in. When asked how Raleigh defines a successful student, one teacher replied,

> *When they find their place. We talk as a faculty about how we want every kid when they graduate to feel like they left something behind. The school is different because they were here. They helped organize orientation. They joined the Raleigh Rowdies [a Pep club]. We want all kids to feel like they have something they bring to the school. You won't all be leaders at such and such, but you'll all have an opportunity.*

In a different focus group, answering the same question, another teacher shared, "A student that finds their niche. Anime. Drama. Whatever. Frisbee golf. A kid that finds that passion and carries it through. A lot of our clubs meet at lunch. Science Olympiad has 60 kids; that's 10% percent of the school!" A teacher with a daughter at Raleigh shared,

> *Every school wants this. Clubs are a huge part of it. If they have an interest, they can find or start a club. My daughter was terrified when she came here, and within days she was starting to plug in. There is so much emphasis on helping kids find a way to plug in. Meetings, Flex Days, trying to find your group. Most successful students are plugging in in ninth and tenth grades and then taking a leadership role. A number of kids have risen to that level where every kid knows them. They've infused who they are into the school, rather than just getting something out of it.*

Clearly the effort to help students fit in socially — a particular concern of adolescents — freed students to do their best work academically. Here is the consequence of the positive social climate on one student's Latin homework: "We are translating the *Aeneid*. The teacher just says, 'I trust you to translate for 45 minutes.' She doesn't check it. If I don't do my homework in that class, other students have to take up my slack. I do that homework first."

Lastly, the need that adolescents often express to have learning be relevant also seems to be addressed at Raleigh Charter. There is a genuine effort on the part of teachers to make learning

relevant to students currently, not just as a means of passing important tests to get into good colleges to have a productive future. This is as much about teaching methods that are relevant to the teenage mindset as it was about content. For example, debate and argumentation seem to be a part of nearly every class. Considering multiple viewpoints and different worldviews (a part of adolescent identity formation) is also encouraged. When asked to describe a time when he learned something at school he knew was going to help him outside of school, a student said, "Every day in my English class. She is an amazing teacher. We read *Candide* and talked about discovering self and how he says life is absurd. Sisyphus. Candide. Voltaire. There isn't one system. Now we are reading *Faust*. These things just change your whole perspective on the world."

To foster relevance one student shared, "Teachers keep assignments broad. They give guidelines but not a specific topic. Like in English. We had to write an autobiographical essay. She could have given a topic: 'A Time in Your Life You Struggled.' But it could be anything. I wrote about something I learned in Sunday school. Someone else wrote about a first dance performance. It helps you figure out what you are interested in." Responding to the question about learning being applicable outside of school, another student said, "Recently I took the North Carolina writing test. So I had all these writing prompts. One practice one had to do with responsibility. I wrote about how I am juggling all these activities. It was helping me to actually use it. What I wrote down, I actually apply now. For example, I gave up TV to play more tennis. It fits in with Civics to learn about opportunity costs." One student said she knew she is having success in school "when I am actually talking about what I learned at lunch with my friends."

Teachers at Raleigh do not feel inappropriately challenged when asked to explain why students are being asked to learn something. A teacher articulated this shared approach: "We can have a conversation about when we will use this. It might go on for 20 minutes. And I feel like I know I am doing well when the students are derailing me in a productive way." One response that drew laughs in a student focus group was "It's not uncommon to ask, I don't understand how this applies. Then their [the teacher's] eyes light up! 'Let me tell you the four examples I have been thinking of, hoping you would ask that question.'"

A Highly Qualified Staff

The first factor Dr. Humble mentioned when asked to what he attributed the success of Raleigh Charter was the staff. He repeated again and again throughout conversations, "We have a great staff." When we asked him what defined a great teacher, he said, "A mind at work. Our teachers are kind, caring, and *smart*."

The hiring process at Raleigh is a rigorous one. Initial interviews are conducted by departments to ensure that, as a prerequisite, candidates know the field in which they are teaching. Not everyone who is hired has formal training as a teacher, and several teachers we spoke to have transitioned from other fields. Just under half the staff is unlicensed. This emphasis on hiring teachers who are extremely well versed in a discipline allows students to become fully engaged in the teaching and learning process. Paradoxically, this high level of teacher confidence allows them to admit mistakes and continually seek to improve. As one student told us, "Teachers are willing to admit they don't know something, but they will get back to you." One student said of Dr. Humble, "That guy is always in learning mode." This confidence also allows administrators and teachers not to exercise power over students. One teacher referred to it as "the confidence that enables kindness."

Candidates that make it past the interview must teach two lessons. The first is in a regular class that fits in with the curriculum that day. Prospective teachers are told in advance what they are expected to teach, they prepare a lesson (e.g., Hamlet's second soliloquy), and they come in and teach. Later that day, they teach anything they want as a lesson to the entire faculty. The staff as a whole is highly involved in the hiring process. As one teacher told us, "At other schools I've been in, the principal hires the person and the staff rubber-stamps it. Here the team hires the person and the principal rubber-stamps it. That's how they do it at Microsoft where I used to work." Other teachers told us that the hiring process creates a feeling that everyone is responsible for ensuring the success of the newcomers.

Once hired, care is taken to induct new teachers with a great deal of intention and with constant reference to the school's mission. Describing a new teacher's first session after hiring, Dr. Humble said,

> *We use these arm metaphors. We tell new teachers, "Our goal is to bring them [students] all in. [He gestured broadly with his arms as if hugging a large tree.] We know some high school teachers think it should be like this [he extended a stiff arm, palm facing away as if stopping traffic]. "We're going to be tough; you're not going to get away with anything while you're with us." Another one we use is "We want everyone to get up here [he gestured with his right arm pointing upward] and for most of our students that will mean college. But not everyone starts in the same place or can go at the same pace, and so we are going to support them, bring them along [he moved his left arm lower making a scooping gesture]." They seem to get the point.*

In addition to careful orientation, new teachers are assigned a buddy. One teacher, reflecting on his experience as a newcomer, said, "It's a bit of a baptism by fire, but there is a lot of support." Another

teacher said, "I was very overwhelmed by the expectations at first, but there was a lot of support. They ease you into it. For example, they take you off duties." Nearly every teacher we spoke with shared the pressure they feel being in such an elite teaching corps *and* the enjoyment they feel at having it drive them. Everyone at RCHS, including the administration, is on a one-year contract. This does not have the effect of reducing the risk taking necessary to be a creative teacher. One teacher told us, "I feel perfectly comfortable saying, 'I did this and it bombed.'

Raleigh's space issues (several teachers float, and almost all teachers must share their classroom) put teachers in regular informal daily observation of one another. This, in addition to the more formal expectation that teachers observe at least six classes a year, creates one of the highest cultures of collegiality the researchers have ever seen in a school. Many teachers shared they might be in their classroom correcting papers while another teacher is teaching, only to be drawn into the lesson. They then talk with their colleague about what they thought worked and what did not. One teacher said,

> *We are talking to each other all the time. Evaluating, comparing, all the time. It's a lot of pressure. It can be tough to live up to that example, but everyone is helpful. The administration is very involved, not just the two times a year for traditional observation. There is lots of attention to engaged learning. The irony is: I feel like I have more autonomy than I have ever had, yet a lot of people are observing me.*

The "irony" of this autonomy in such a collegial environment was also frequently expressed. Many told us they felt a great freedom to teach as they see fit. Teachers agreed that this was due in part to the hiring process. They were also careful to contrast this situation with the autonomy they had experienced in other schools. One teacher said, "In the regular public school where I worked I had autonomy; the principal never came in." Another teacher added, "I have seen autonomy turn into apathy in a public school. They leave you alone as long as you are not causing problems. You get teachers showing movies every week. Here the autonomy is based on trust and respect." Many teachers were at a loss to explain why friends and colleagues at other schools were anxious or antagonistic about observation. One teacher went as far as to say, "If I don't want other adults in my room, what am I hiding?"

Comparing Raleigh to his previous experience, a teacher related,

> *I used to teach in a middle school in Massachusetts. It was so different. Different with students and with teachers. There the pressure is to be bad. You know? Be in this tough group. The peer*

> *pressure is to be bad. Here the peer pressure is the other way. Teachers at that middle school cared about cashing their paycheck. There was a guy who was all about union minutes per day. School started at 8, and if he got to school at 7:58 he would wait in his car for two minutes. At 3:30 his foot crossed the threshold to go home. We had a professional development day once, and at 3:30 three-quarters of the teachers got up and left. The presenter was on slide 30 out of 34, and they just walked out. Teachers and students here do not act that way. Here the pressure is positive. Teachers here are out of this world.*

Another teacher said,

> *I have great peers. They know their subject matter and far more. They have worked professionally. They have interesting lives that they bring back. Our theater teacher produces plays in her community. Our art teacher has his own gallery. This is my ninth year. I couldn't leave this educational environment. I'm afraid I wouldn't find this anywhere else. This level of respect. They really want you to tell them what you think. I feel really supported.*

Another teacher said, "No one at Raleigh Charter is counting the hours to retirement."

Without question, the professionalism of the staff is what makes the rest of Raleigh Charter work. The combination of the quality of each individual teacher *and* the quality of their collegial interactions drives the mission, the pedagogy, and the approach that accepts adolescents as adolescents. In this environment, the bar is high, and teachers feel comfortable challenging one another and being challenged by others to do their best work. This was a professional teaching and learning community that far exceeded the professional cultures we have seen elsewhere.

In summary, Raleigh Charter High School deserves all the accolades that have come, and are sure to continue to come, its way. Although some might easily dismiss the advantage of being a charter school, all of the major themes are replicable in any public school. Raleigh Charter's mission has a particular focus on creating citizens of the world through service, but what is significant is that Raleigh *lives* its mission and vision. The active, social, and creative learning environment is one that is demanded by the highly interconnected world in which we live, to say nothing of the nature of adolescents themselves. Business leaders have been encouraging schools to foster this form of education and move beyond the industrial age. Accepting adolescents as the work in progress they are, and in fact encouraging experimentation, identity exploration, and mistake making through curriculum and co-curricular involvement, should be de rigueur in high schools. The freedom to learn that the lack of antagonism creates at Raleigh is an approach worth emulating.

Finally, the current need to educate students to be college, work, and life ready in this century require all schools to look closely at the quality of teachers and expect of them the collegiality other professions demand.

Newport High School

Newport High School in Bellevue, WA, is a four-year comprehensive high school. The current student body is approximately 26% Asian American, 62% white, 2% African American, 3% Hispanic, and 7% multiethnic; 1,686 students are enrolled. NHS has a 90.1% graduation rate and 6% dropout rate. Newport has an excellent reputation for academic rigor and has received numerous awards due to its success.

A comprehensive qualitative research study was used to better understand the success of Newport High School. This study included structured focus group interviews with administration, teachers, and students. Five focus groups were conducted with students. Five teacher focus groups were also held. Individual interviews were also conducted with two teachers and two students. Three students were shadowed and classrooms were observed throughout the study. Through this qualitative study, four themes emerged that accounted to the success of Newport.

High Expectations

Everyone is expected to do their part to be successful. –12th grade boy

You come here and it is such a good school. You feel you have to do well here. –9th grade girl

Basically everyone takes an AP course here. –11th grade boy

At Newport High School, there is a unified message regarding what makes their school a success: "high expectations." Teachers, students, administration, and parents understand that NHS students are expected to achieve. This is evident by the school goal: "to prepare ALL students for the rigors of college and take at least one advanced level course before graduating from high school." Students commonly take several AP courses, and, in fact, students report they are expected to take at least three AP courses. Typically, students take four years of math and three years of science even though this exceeds state requirements. Students feel that "if I can make it here, I can make it anywhere."

The culture of high expectations is uniquely manifest in the students themselves. They push each other to take AP courses and are actually embarrassed to tell their friends if they decide *not* to

take an extra AP course. Students are very focused on their ultimate goal of getting into a "good college." Students shared that the path to a good college is AP courses and a high GPA. According to the My Voice Survey, 90% of students agreed with the statement, "Getting good grades is important to me." One teacher expressed that from the student perspective it is not "if I am going to college, but where I am going." Students who seek out challenges and are willing to learn are seen as successful students at NHS. Student risk taking is purported, yet there is also hesitancy from students to take a challenging class if they might not get the higher grade. Likewise, they may not enroll in a regular class because they cannot get extra GPA points with a high grade.

Teachers and students attribute the development of a culture of high expectations to the parents in the school community. Parents are highly involved in their child's educational journey. They monitor grades, advocate for their child, and are active in the PTSA. Parents appear to fall into two categories: those who are successful and those who see NHS as offering an opportunity for their child they never had. For many families, their children are first-generation Americans and accordingly, will be the first generation to attend college. The financially affluent parents are able to provide students with after-school tutoring, travel, and experiences that enrich their cultural capital. NHS does not offer support for nonnative speakers. In spite of this lack of support for English-language learners, parents chose to forgo services in order for their children to attend NHS. Many students discussed the sacrifices their parents have made for them to be at this school. The students do not want to let their parents down. One student remarked, "I get good grades to get my parents off my back." Another student shared that his father was the valedictorian at MIT and wanted him to live up to that legacy. Students displayed respect for their parents and did not seem frustrated or deterred by their parents' high expectations.

High expectations are prevalent throughout the school. Even the 9th grade physical education teacher boasts that for her students to pass PE, they must run four miles. Eighty percent of freshmen feel "Teachers expect me to be successful" (My Voice Survey, 2009). Rigor is inherent in a culture of high expectations. The AP curriculum provides rigor as evidenced by complex thinking, college-level texts, and intensity in the classroom. During the 2007-08 school year 80% of students took at least one AP exam. Eight hundred students sat through 2000 AP exams resulting in 74% passing. During classroom observations it was clear that instruction occurs from bell to bell. In fact, students appear annoyed by classmates who were unprepared.

Discipline issues do not affect the learning environment. Teachers express that students want to be at school and they spend very little time correcting student behavior. The expectation is that "things don't escalate here." If there is a fight, "everyone becomes unglued, and it is not accepted."

During assemblies there are no issues.

On the whole, the combination of high parent, teacher, and student expectations along with minimal discipline issues and rigorous AP courses creates an environment conducive to learning. Most students have a goal of attending a good college and making their parents proud, and 92% report that going to college is important for their future (My Voice, 2009). Parents send their children to NHS to receive what they deem as the best possible education to prepare their children for college.

Student Responsibility

The decision to learn is yours . . . You can waste six hours doing nothing or actually use the time. –10th grade girl

Mostly all students do their homework whether checked or not. –Teacher

Teachers always say you earn grades and they don't give them to you. —11th grade boy

Along with high expectations, Newport High School promotes student responsibility. "We don't baby students here." Students are responsible for being at school, completing their homework, and attending tutorial time if needed. The last 30 minutes of every day are designated as tutorial time. During this time students are able to receive extra help from any of their teachers. Students express that this time is very important both academically and for building relationships with their teachers. Students are also responsible for attending peer-tutoring opportunities. NHS is an open campus, and again students are expected to be responsible with this privilege. No one reported any issues or concerns with the open campus concept.

During a classroom observation teachers showed a clear expectation that students must participate in their learning. Posters on the wall stated (1) Ask questions in class (2) Check with a classmate (3) Ask the teacher (4) Attend tutorials. Teachers also reported that there is "no hedging on sports eligibility." Academics come first. Being tardy is also seen as a opportunity for student responsibility. Tardy slips hang by the door with a sign that reads, "Tardy today? Take one." The tardy slips were designed for students to self-report their tardiness and sign up for the appropriate consequence.

Another example of student responsibility involves students and homework assignments. A student was observed attempting to hand in late work for credit.

STUDENT: I forgot to bring it yesterday.

TEACHER: That's not my problem, that's your problem. You need to write 'late' at the top, and I'll count it as one of your late passes.

This seemed consistent with the expectation of both staff and students that students assume the primary responsibility for their learning. According to one student, "It is the student's responsibility to find a way to understand the material. " In fact, this student said some teachers got mad when students did not understand the material being presented.

Class participation is part of student responsibility. One teacher was observed encouraging all students to participate. "Four of you have not joined the conversation yet, and you need to volunteer your ideas. I don't want to be the kind of teacher who calls on students. This is like a buffet . . . and you can't keep coming to the buffet to eat without contributing a dish. We need you to contribute your ideas." At the end of class, this teacher thanked individual students for their contributions to class discussion.

One junior summed up student responsibility:

> *The decision to learn is yours . . . You can waste six hours doing nothing or actually use it. We have free education here. Might as well utilize it. For some classes every week students read a chapter at home and you can or cannot do the study packet.*

A program that epitomizes student responsibility and is extremely popular with the students is the ASPEN program. In fact, during the current school year 200 students applied for 26 spots. Because the health teacher teaches this course, offering more sections was impossible. AIDS Peer Education (ASPEN) at Newport is an advanced health class that focuses on HIV/AIDS and its impact on the world community. Students spend one quarter learning about HIV/AIDS, teaching techniques, and developing lesson plans for HIV/AIDS instruction. During second quarter the students act as peer educators to deliver two-day HIV/AIDS lessons to 9th, 10th, 11, and 12th graders at Newport High and to 10th graders at Interlake and Sammamish. According to the ASPEN teacher,

> *The program empowers students and teachers. It teaches skills and self-responsibility and creates lifelong servers. They have a real role and they deliver these lessons. The students teach homeless*

> *youth. They have to be of service living with HIV in their community. Real life, relevance. They have a food delivery route. They work in the soup kitchen. . . . Service learning kids . . . 26 kids on the team and they serve for a year. Takes a semester of teaching to get them . . . ready to be in . . . field. Very skilled educators. They have to be role models on the campus and must be HIV tested and have to be drug and alcohol free. They have to engage in no risk behavior. . . . Anti-bullying harassment. Have to work in the . . . GTBL community. ASPEN teaches diversity lesson . . . power of peer education . . . Kids as role models. [Editor's note: ellipses indicate slight gaps in transcription]*

ASPEN also teaches students social responsibility. "I feel that our acceptance of others is like a chain. When we do something nice it spreads. We have an impact on other students. The curriculum changes to meet the needs of the school and students."

Students at NHS make no excuses if they receive poor grades and do not achieve at desirable levels. They realize the school is pushing them toward success and they are responsible to seek help or advice if needed. Teachers are willing to help students who want help. Along with this responsibility comes a sense of school and personal pride. Students feel that their success is well deserved through the hard work they put into their schooling.

Teacher Preparedness

Teachers do not take a day off. —Teacher

There is a dedicated staff because the pressure on teachers is as great as it is for kids. —Teacher

There is a spirit for teachers to rise to challenges. —Teacher

Teachers at Newport High School have no choice but to be prepared. Teachers are accountable to parents and students for grades, which requires organization and planning. Teachers, administration, and the students themselves expect to be learning all the time. It was evident that department collaboration is endemic in the school culture. Teachers expressed their willingness to share materials, ideas, and advice with colleagues. One teacher summed up how this affected his teaching: "I don't have to do everything myself. I can focus on the curriculum." Collaboration is evident through sharing lessons and planning. On Wednesday afternoons teachers have a curriculum-release day to plan and work together. The district does not direct this teacher time. A math teacher shared that during Wednesday release time,

> *Teachers tend to work on their own stuff. Some of us go out to lunch to decompress. The*

> *curriculum release day is good to have in order to work . . . with . . . others on projects. For the most part this time is used as catch-up days for teachers. This time gives you an opportunity to collaborate, and it is used to some degree for this purpose in different disciplines. This time gives me the space to use my colleagues to get clarification on different topics.*

Another example of department collaboration is evident in the math department and their sharing of materials. The department has a file on the server where teachers put worksheets, quizzes, and ideas for everyone to use. Teachers often share lessons and ideas between classes. "Collaboration makes us all grow." Teachers also feel they can take risks and ask questions. "To admit you don't know something can be scary, but it is okay here to ask for help, collaborate, and work together."

In the classroom, it was observed that teachers were organized. Handouts were three-hole punched so students could easily put them in their binders. Teachers did not waste any class time, as instruction was evident from bell to bell. One teacher said he felt like "I have been selected for the A team and you cannot be a slouch in this school."

Teacher preparedness and teacher learning are supported throughout the district. The Bellevue Foundation supports teachers' quest for national certification. Bellevue district "sets high standards for its teaching staff." One measure is the number of staff passing rigorous exams given by the National Board for Professional Teaching Standard. Over fifteen teachers have achieved this status. This number is well above the national average per school. Teachers also have the unique opportunity of attending the AP Summer Institute, hosted by the Bellevue district. The institute is four days of challenging advanced placement programs. Teachers in the district are fully supported and encouraged to attend even if they are not an AP teacher. Over 50% of NHS staff have attended the summer institute.

During interviews teachers appeared reflective and eager to learn and improve their practice. They were able to recognize the areas they need to improve as a staff. The district is currently moving toward professional learning communities in the individual schools. Through this process, the staff is realizing they need to work on their relationships with students. The My Voice™ data support this need, and 38% of students agree with the statement "Teachers care about my problems and feelings." Yet 75% of the students feel they "have a teacher who is a positive role model."

Overall, the NHS staff are dedicated, passionate educators who feel a responsibility toward the school and the students. They live up to this responsibility by being prepared each day, collaborating within departments, attending optional training programs in the summer, and pushing each other to be the best possible educator.

Student-Driven Schedule and Student Opportunities

This school has so many clubs. You can even start your own club. —12th grade boy

Students decide what course they need. —Counselor

I feel like I would not be the same without these opportunities. We have so much to offer. —11th grade boy

Students at NHS drive the schedule. In other words, if a student wants to get into a course, the school will make sure he or she can take that course. The school day consists of seven periods so that students can take all the courses they want. Students even drive the PE course selection. Recently, students wanted to take more racquet sports, and the PE department has adjusted its course offerings accordingly.

To assist students in their academic endeavors, the last 30 minutes of every school day are dedicated to tutorial time. Students can seek out teachers to provide extra support or help. Students expressed that this time was very important and allowed teachers to get them know them as individuals. Twice a week the school has an extended tutorial until 5:30.

Opportunities abound at NHS. Students can choose to participate in dozens of clubs. Activities include music and drama groups (band, choir, orchestra, drama), academic groups (debate, math club, peer tutoring, robotics, honor society), school spirit (cheer and drill), community service (ASPEN, Knight Valor, peer tutoring), and snow riders. Students indicate that they participate in six to seven clubs during a semester. Although some clubs are light-hearted (e.g., Taco Bell, guitar club), other clubs such as Robotics and Jazz Club require much time and commitment on the part of the students. Students are invited to create their own club through a simple process involving an activity proposal. All students are aware of this opportunity. Students were very proud of their music program.

Another unique opportunity involves the diversity of academic programs. These programs include Cisco, Spanish Immersion, Teaching Academy, and College Credit and Careers Network. The Cisco program appears to be the most popular among students. At the end of the second semester, students take the Cisco Certified Network Associate Exam. With adequate completion of the exam, students earn 20 college credits. According to the school course brochure,

> *This course provides students with classroom and laboratory experience in current and emerging network technology. This knowledge will empower them to enter employment, and/*

> *or further their education at college or other post-secondary educational schools. Instruction includes, but is not limited to: safety, networking, network terminology and protocols, LANs, WANs, OSI model, cabling, router programming, Ethernet, Fiber Optics, TCP/IP, and network standards.*

Several students said they would never want to eliminate the Spanish Immersion program, which is an extension of an elementary immersion program in the district. The students we spoke to in this program all intend to study international relations or international business in college.

Another unique opportunity for students is the Teaching Academy. This two-credit course is designed for students who want a professional career in education. The course introduces students to the educational system from teaching to administration. In addition to instruction and seminars at the high school, students will intern with a mentor teacher at an elementary or middle school. Throughout the year, students participate in the inner workings of the classroom, school, and district.

Finally, the College Credit and Careers Network is a partnership of school districts, community and technical colleges, with business and community members that serve students through a rigorous sequence of education and Tech Prep Dual Credit opportunities leading to industry certification, postsecondary degrees, and employment in high-skill and high-demand career pathways. The program is available throughout the Bellevue district. In addition the school website offers parents and students much information about college and the application process.

Overall, students at NHS have an abundance of academic and social opportunities available to them. In discussing opportunities one student expressed,

> *Newport has a lot of opportunities different than other schools. I talk with other students and they don't have these opportunities. I feel I take away from Newport stuff like ASPEN. I feel like I would not be the same without these opportunities. We have so much to offer. I really like that Newport has this stuff to offer. There is time in school that is useful. A lot of schools only offer the basic stuff. Newport has good stuff.*

Opportunities are available for students to pursue college credits or career training. Students can even enter high school with credits from their middle school courses. Although not every student is successful at NHS, for the reported 80% who work well in a high pressured, college-bound environment, the school is meeting their needs.

Saunders Trade and Technical High School

Saunders Trade and Technical High School is located in Yonkers, N.Y. The school currently serves 1,250 students from diverse ethnic and socioeconomic backgrounds. Saunders boasts an attendance rate of 97%. The key to understanding Saunders is the unique structure of the school. As a dedicated magnet school for over 90 years, Saunders has been providing both vocational and academic instruction to all students. Each student fulfills state academic requirements but also completes a three-year technical, vocational, or occupational major along with related courses in order to earn a specialized Saunders diploma. Students leave Saunders with 35 credits, as opposed to the 22-credit minimal requirement.

All students "ballot" for a major during their freshman year with the hope of being placed in their first-choice major. Before the balloting process, students gain experience in all 13 possible majors. To entice freshman into specific majors, each major demonstrates their pride during an annual pep rally. Students shared that the pep rally is the biggest event that the entire school participates in, and it gives them a chance to show their school spirit. Another significant factor that contributes to the uniqueness of Saunders is that 20% of the staff attended the school as students. This characteristic of the staff positively affects teachers' commitment, sense of purpose, and their desire to give back to a school, "carrying on the Saunders tradition" that made a difference for them as students.

To gain insight and understanding into the success of Saunders Trade and Technical School, myriad qualitative methods, including focus groups, observations, and student shadowing, were used. Participants in this study included students, teachers, administrators, and support staff. Four common themes emerged from the data:

- Relationships
- Collaboration, support, and commitment
- Real-Life/Relevant Learning
- Students feel prepared and confident for post-secondary school and/or a career

Relationships

We are family.

Teachers really know us.

Teachers trust us.

We (staff) all knew each other growing up.

We are from the school and community.

(comments from Saunders' students and staff)

A focus on fostering relationships with students is evident in all that Saunders does. Saunders students and staff see themselves as a family. Structurally, the magnet classes create an environment in which teachers genuinely get to know their students. Magnet classes serve as a home base for students and provide a small learning community where teachers connect with their students for a three-year period three hours a day. According to the magnet teachers, they get "a lot of face time with students." Magnet teachers clearly know their students' academic and personal goals.

> *Magnets keep the culture. Magnets are like a family. We have generation after generation coming here. We have a personal interest in this school because we graduated from here. I put my life into this school and its students.*
>
> *(veteran magnet teacher)*

Relationships are also built through the close monitoring of students. Each grade level is assigned a vice principal, counselor, and safety officer who follow their class for a four-year period. This process affords students the opportunity to develop genuine relationships not only with their teachers but also with other adults at the school. According to the My Voice Survey, 72% of seniors indicate they have a teacher who is a positive role model for them. When students were asked, "Does at least one adult in the building know you well?" the students overwhelmingly responded, "They all know us well." Students shared that the principal also had their individual best interests in mind. One student commented, "Our principal is not just about grades and tests. He motivates me and tells me I am a leader."

> *Like I tell my students, when you are with me, I am your mother. You're stuck with me for the next four years. That is a comfort to these kids as well. If you feel you are around somebody who*

knows you, it makes a difference.

(assistant principal)

The expectation of fostering positive relationships with students is evident in everything Saunders does. A prime example is the recently developed mentoring program for 9th and 10th graders. Twice a month, teachers meet with small groups of students. The groups are intentionally designed so that students meet with teachers whom they do not have for any of their classes. This provides the opportunity for students to connect with more adults. Mentors follow students' academic and personal progress throughout the year.

Students realize that being at Saunders means they are part of a special family. They indicate there are very few instances of bullying, and students in general just "get along." In response to what makes their school outstanding, one student responded,

> *I say that at our school is outstanding because our teachers care about us. I know from experience that teachers support you. Teachers are supportive, and it feels like a family. They are very welcoming to you. I was intimidated coming here, and now I love the environment. Teachers dedicate a lot of time to their students. If you need help, they will help you with it. Many students become friends with their teachers.*

A female junior responded to the same prompt:

> *All of us have at least one teacher that they know they can go to. The principal and administrators enable all of us to talk to them at any time. The staff and administrators are very welcoming. When my father died, all of the teachers and administrators supported me, sent me cards, and just made me feel accepted and supported. That is what it means to be a family.*

The environment at Saunders is marked by safety, respect, and trust, all of which build positive relationships. The hallways at Saunders appear unusually calm for a high school of this size. After the bell rings, very few, if any, students are wandering the halls. The cafeteria is not chaotic, and students appear to mingle casually with each other. Safety officers have minimal crowd control issues. Assistant principals can be heard asking students where they need to be, and students dutifully proceed in that direction. No graffiti was seen, and minimal trash was visible around the building. The cafeteria was calm, and little adult intervention was needed to direct students during lunchtime.

Staff at Saunders share respect for each other. Teachers discussed how they learn from each other and the fact that everyone does the best he or she can do. Many staff members either live in the community or grew up in the community. People have known each other and their families for years. A veteran staff member summed up his perspective on staff and relationships:

> *I feel like they [administrators] are here for the same reason. We are all here for the students. It feels like a family. The faculty has as much school spirit as the students. I can speak for myself because I have been here for 25 years. I knew in three months after being here I would retire from this building.*

Respect is evident in the classrooms by the way adults and students treat each other. Teachers express high expectations of their students. This includes the requirement that students pass their major classes in order to remain at Saunders. Students are acutely aware of this expectation. Students work hard because they know their teachers work hard and because the students "do not want to let them down."

Another hallmark of relationships at Saunders is trust. Students trust the advice teachers give them and readily share the life lessons they have learned from their teachers. These lessons include the importance of hard work, professionalism, and a belief in success. According to one of the academic teachers,

> *The majority of our students come from unique backgrounds, so the first thing these students need is to gain trust in us. So, if you get that trust factor with a student, then I think everything else just comes along with it. You have them in 10th grade, you have them in 11th grade, and you have them in 12th grade. You have been with them for three years. That is a long period of time. They start believing in you and they trust you. You tell them something and they respect it.*

The students feel staff show trust in many ways. For example, students have the unique opportunity to order takeout food for lunch. They leave the building to pick up their lunches on the outskirts of school property. The principal stated that he rarely has any problems with students following the lunch rules. Students know that the lunch privilege is based on mutual trust, and they don't want to jeopardize that trust. One senior student expressed that the reason lunch works is "because we all trust each other."

Collaboration, Support, and Commitment

We have to kick kids out at 6 p.m.

Lots of teachers stay after school.

Teachers went to Saunders and want to give back.

At Saunders, school leadership fosters a culture of collaboration, support, and commitment. To this end, formal and informal teaming occurs at Saunders. Administration expressed that an excellent teacher is someone who "makes a connection to others." This thinking applies to both teacher-student connections and teacher-teacher connections. Teachers shared that there is a positive peer pressure to do the best job they can and they work together to make this happen. To better understand each other, last year the vocational, technical, and occupational teachers held workshops for academic teachers to learn more about their specific programs. This type of cross-discipline sharing and support is not unusual at Saunders.

Collaboration is also evident in cross-disciplinary work at Saunders. Currently, all magnet classes include writing activities as part of a school-wide focus on writing. Both magnet and academic teachers regularly inquire about what the others are doing in their classes. Collaboration is a necessity for the senior projects, which require students to show their learning through a project or demonstration.

Teachers feel supported by administrators. "I feel like I am not intimidated by administration. I feel like they are here for the same reason." Administration is visible and available at Saunders. Every teacher is observed monthly. This practice does not appear to cause stress or anxiety for the staff. One teacher shared that he did not even know he had been observed until he received a paper in his mailbox. Although teachers were unsure if monthly observations improve teaching and learning, they did feel that administration is connected to the classroom. There is clearly a comfortable and welcoming connection between administrators and staff. According to the We Lead Survey, 91% of teachers feel they are supported to grow professionally.

Students clearly feel supported by teachers at Saunders. One high school junior shared her experience with the Saunders support:

> *Students are supported even when they feel that they mess something up. I was a last-minute entry into a talent show and had to memorize a part, but I forgot the part when I got on stage.*

> *I went running, crying off stage. My teachers and students came up and offered support and told me I could do it. The assistant told me to go back out and try again. I was getting thumbs up and applause, but I still messed up. I cried all night in the bathroom. But I felt good, and everyone was supportive. I was not embarrassed when I went to school the next day. This is what I mean by being supported.*

The administrators' commitment to the school and students is evident by the fact that if students don't show up to school, the assistant principals go to their homes. Students' academic and personal progress is closely monitored. "We are the only school on a nine-period schedule. Students come here longer, and if they aren't doing well, they may not stay here" (assistant principal). Both teachers and students know that a teacher's commitment to Saunders is a commitment to longer days and an expectation that the teacher will stay after school, oversee clubs, and be there for students. Saunders offers student a range of clubs to participate in after school. These clubs include robotics, literacy magazine, Asian Club, and Students Against Destructive Behavior. Teachers volunteer their time for these clubs.

Real-Life/Relevant Learning

Many of us come to Saunders with real-world experience.

Our teachers talk to us about life.

I can leave here and find a job or support myself in college.

- comments from Saunders students

Life after high school is always relevant to students at Saunders. Whether this comes in the form of their major, which provides students with skills they can use upon graduation, or in the form of extensive college matriculation programs available to students, all students know Saunders is a stepping-stone toward their future. Students are required to dress appropriately and work with the tools and technical manuals from the industry. According to one magnet teacher, "Students are really one step ahead of most of the students who would leave from any other school."

Magnet programs are closely tied to the business and trade world. Magnet trades' teachers come from industry. They are all licensed and maintain certification in their fields. (In fact, staff added how great it was to be part of a trade's staff as they all trade services e.g. fix each other's cars, hairstyling, graphic design, etc.). The magnet curriculum is not set by the state and therefore is responsive to the industry. "I have been teaching for 15 years and have never taught the same thing for more than a

year" (technology teacher). Students are acutely aware of the mixture of "theory and practicality" in their education. Students also know their teachers teach from experience. For example, the automobile teacher was a mechanic for Mercedes-Benz, and the art teacher displays his own paintings in the classroom.

> *There are deadlines to meet in both majors and academics. The majors are trying to prepare us for the real world, to be on time with deadlines and give us real-world experiences.*
>
> *- High school senior*

The programs at Saunders are constantly evolving to meet the needs of industry. A magnet teacher expressed that they work in something called "dog years." He shared that one of their years is equivalent to seven years in any academic field because there is constant change in their fields. To account for the evolving changes, all of the magnets have an advisory board from the industry that assists the teachers in keeping current. For example, the heating and air conditioning department belongs to the area service managers' organization, and they go to dinner once a month to discuss changes in the field. In some majors, professionals in the industry actually determine students' final grades. Students create a product, and outsiders evaluate the finished product. Some majors, such as cosmetology, have state-mandated requirements as well, where a certain number of hours have to be met to receive a license. The automobile program is also associated with a national certification program. In response to the We Lead Survey statement, "Students can apply what I am teaching to their everyday lives," 88% of teachers agreed.

To help students gain further real-life experiences, the magnet teachers provide opportunities for students to shadow professionals and create in-house competitions. This year students in the fashion design department are competing in a national competition in the hopes of winning a scholarship to a prestigious fashion school.

Perhaps one of the most poignant examples of the relevancy of an education at Saunders was evident in one student's actions. During a focus group, one senior student, who the principal later stated had all odds against him, pulled out his heating and cooling license. The student proudly shared that he had passed the exam and could graduate tomorrow and begin working. The school provides opportunities for students to take licensing exams at school. Cosmetology students take a New York State License Exam; automotive students take courses based on NATEF and ASE Standards; HVAC students take a specialized exam called National Oil Heat Research Alliance (NORA); and National Association of Oil Heating Service Managers (NAOHSM).

Each magnet program requires a yearly display or show. Students express that "projects in our majors are challenging." Students see significant relevance in their projects and major requirements. Projects include fashion shows, environmental research, and culinary dinners. In the architecture program, students have to build a house, including designing the bedrooms, kitchen, den, and bathrooms. This project is completed over the December break. In May, they show off their final project and are assessed. In carpentry, students make a 3-foot bedside table. "It is a little tough to make, but we can get through it. It needs to be done in order to graduate." Fashion puts on a "real" show that includes the students making their own clothing based on a particular theme for the year. Professional models wear the clothing that is made by the students who walk the runway in front of more than 400 guests. Fashions include sleepwear, business suits, evening gowns, with the finale of wedding gowns. Another student described the end of the year fashion show put together by students:

> *At the end of the year, we have a fashion show and it is the biggest housed event in the district, so a lot of people turn out. We rent out a center. We are all required to make three to five garments. The seniors come out with wedding dresses and they make prom dresses. This year, being a junior, I will make a cocktail dress, lingerie, jackets, and we also have a theme for the end of the year. This year it is blossoms, so we have to incorporate flowers within our new designs.*

Other displays include the cosmetology hair show where students compete against each other for most original styles, and hair stylists from the industry judge the competition; Graphics Portfolio Day where students display their portfolio, which consists of three years of work. Professionals from the industry judge their work. Students display original models built to scale pertaining to homes, golf courses, and parks at an Architecture Open House where architects from the industry judge the projects.

The combination of trade and academic learning enables students to feel a constant connection to their current and future lives. Because students choose to attend Saunders and select their major, they feel ownership in their high school experience. Even if students do not end up pursuing a career related to their major, they recognize the relevance to their own lives. One senior expressed that he wanted to be a pharmacist, yet he had chosen carpentry as his major. He shared his reason for choosing carpentry:

> *When I was young, my father was really handy. He always took care of things around the house. I looked up to my father. I did not choose carpentry because I wanted to be a carpenter. I chose it because I saw it in my father who is not here with me anymore. I took carpentry because I wanted*

to be like my father. I want to be a pharmacist. I always wanted to be in the medical field and there are not many medical choices here, but I did carpentry. I saw that as something I could do as my dad did.

Real-life relevant learning is a hallmark of Saunders. Students know they can apply the skills they are learning regardless of whether they enter a trade, vocation, or college after high school. The relevancy keeps students engaged and interested in their learning and projects.

Students Feel Prepared and Confident for Postsecondary School and/or a Career

Everything we do here prepares you for college and career.

Schoolwork is challenging, especially major subjects.

Creating projects that require a lot of hard work and working under pressure in the majors. They prepare us for college.

- Saunders students

The demand of magnets and the academics leaves students feeling prepared to face future academic and career challenges. "We are very college ready. There are many after-school classes like SAT classes, college prep classes, essay writing assistance, and scholarship assistance." Students in grades 9 to 12 complete college preparatory classes such as two years of a foreign language and Regents-level courses. Students from all majors are enrolled in AP classes. The school provides opportunities for students to graduate with college credits and has matriculation programs at eight colleges. Students potentially enter college with up to one semester's worth of credit. Currently, 125 seniors are enrolled in college-based programs that offer the students credits at little or no cost. College is part of many students' future plans. In fact, 89% of seniors think going to college is important for their future (My Voice Survey, 2009).

Students who access support services are provided with significant support and guidance. Special education teachers were observed providing students with step-by-step instructions. These students then went on to use the specific skills, e.g. underlining keywords, using colored pencils to differentiate information in the classroom.

Students have many deadlines and exhibitions. Students shared the high future expectations teachers have of all students. One student said, "If it was up to our teachers, we would all be

president." Guidance plays an important role in the lives of students at Saunders. Students feel supported through the guidance department. A junior reflected on her experiences with guidance:

> *I told her [guidance counselor] about a school I was interested in going to. The next day, I had a giant information packet about this school. She won't give you too much hope. She won't be like, "You can get into Harvard even though you are only getting C's." She is realistic with you, but she doesn't put you down at all. I think that she is great and supportive of all of us. We all can go to her and we love her so much.*

Students expressed only advantages in attending a school that offers academic and vocational, technical, and occupational training. More than 80% of students feel that school is preparing them well for the future (My VoiceÔ Survey, 2009).

In summary, although many factors contribute to the success of Saunders, clearly relationships, an environment of collaboration, commitment, and support, real-life/relevant learning, and preparedness for life after high school are the foundations to Saunders's ongoing success. Both students and staff commonly used the following words when describing Saunders: *challenging, choice, family, we, excellent, successful, and loving.*

Withrow University High School

Withrow University High School (WUHS) is a public school of choice in Cincinnati, OH. WUHS draws from approximately 30 different neighborhoods in Cincinnati, with many students taking public transportation. Originally established in 1919, the school reopened in the fall of 2002 under the current administration as a college preparatory school. WUHS currently enrolls 750 students: 95.9% black, non-Hispanic; 2.2% multiracial; and 1.8% white, non-Hispanic; 59.4% of students are listed as coming from economically disadvantaged homes and 17.6% have disabilities. In 2008, Withrow's graduation rate was 98%. In the district of Cincinnati City, the graduation rate was 84.6%, and the Ohio statewide average was 82.9%. Withrow University High School is located in a predominantly white (90.6%) neighborhood (see Table of Graduation rates)

Students arrive in 9th grade with a wide range of ability, yet the school's mission is for all students to be accepted to college and prepared for success. When asked about the schools' challenges, the most common answers related to poverty. These ranged from students having to stay home to watch siblings, to students needing to work to support family, to not having money for bus fare

(students take public transportation, which is free only on weekdays between certain hours). Also listed were the social conditions that typically accompany poverty: teen pregnancy, violence, gangs, a lack of fathers in the home, living in shelters, and the loss of friends to violence. As one teacher put it, "We don't select the students; they select us. So we get a lot of low-performing students, and it is a challenge to bring those students up to speed. We do a lot of remediation in the first year." A junior put it this way: "When I came here, they told me this was a college-bound school. None of the men in my family ever went to college. From freshman year, they have been telling me I was going to go to college. At first I wasn't sure, but since I have been here,… now I am going to college."

Withrow's mission statement is, "We will empower students to be life-long learners by promoting high expectations, rigorous instruction, Cincinnati Public Schools academic standards, community service, and family support within a safe and disciplined environment. No excuses." Students and teachers make an exceptional effort over four years to achieve the goal of 100% of the students being admitted to college. This building-wide aspiration includes an emphasis first on passing the Ohio Graduation Test (OGT). Subsequently, Withrow is committed to helping students get into college or some other form of postsecondary education. This commitment is demonstrated through considerable ongoing assistance in applying for financial aid, counseling, and application assistance.

In interviews and observations, four themes emerged as contributing factors to the success of Withrow University High School:

- A coherent vision driven by strong leadership
- High expectations for teachers and students
- Meeting students where they are academically
- High levels of support

A Coherent Vision Driven by Strong Leadership

One of the most strongly expressed findings of the Withrow case study is the relationship between leadership and the success of the school in developing college-bound graduates. Everyone with whom we spoke — from the administrative team to the students — indicated this. Principal Sharon Johnson carries out her role as Withrow's chief administrator with the utmost professionalism and a determined sense of personal pride. She is driven, focused, and compassionate. In 2001, the superintendent of Cincinnati City Schools asked her to leave a highly

successful elementary school she helped create to take on a struggling Withrow University High School. Before her arrival, Withrow had a high dropout rate, poor parental involvement, and many teachers with a burned-out "I don't care" attitude. Ms. Johnson's son, who graduated from Withrow in 1998, strongly advised her not to go there. He described the students to her as "off the chain" and related that many smoked pot and were not respectful to one another or the adults. After a great deal of thought, she told her son that the reasons he gave for not taking the job were the very reasons she felt compelled to accept.

Her acceptance was conditional. She insisted to the central office that she needed flexibility, union cooperation, and the freedom to hire her own staff. With the promise that she would have all three, she took on the task of rebuilding a school that has had a long and uneven history in the city of Cincinnati. Ms. Johnson's reputation at the elementary school helped her to assemble her staff. Together they decided to have a college-bound focus, gender-separate classes, a dress code, and a bridge program for incoming students. In 2002 the doors opened for an entering class of 200 9th graders.

The staff who were interviewed universally described Ms. Johnson's leadership as "elemental" to the school's success. They characterized her leadership as "by example," expecting from them the same high degree of effort and professionalism that she expects of herself. Students referred to her as "The Queen Mother," a term of endearment that captures both her no-nonsense style and caring approach. When asked why he worked so hard in school, one young man answered simply, "My principal."

Effective leadership is only part of the equation at Withrow. The other part is that the overall effect of Ms. Johnson's leadership ensures that Withrow *lives* its mission statement. Nearly everyone interviewed cited the phrase "No excuses" as a reason for the school's success. One teacher said, "It starts from the mission statement. 'No excuses.' From administration on down there are no excuses for kids or staff. We set the climate from the first day, and you are expected to perform."

The administration makes certain that every system in the school — from the college banners and posters that are the most prevalent adornments in the school (as one student said, "Everywhere you walk there are visual reminders of what you are here for") to the three college financial aid officers — is aligned to the school purpose. Having leadership that insists the school's systems are aligned to its mission is best evidenced in Withrow's curriculum. When we inquired about how decisions are made about how and what to teach, Ms. Johnson replied,

> *The district decides, but I do things a little different. I don't ask permission, I ask forgiveness. We wanted to be a university school, so I knew we had to step up rigor. We looked into what colleges wanted and got syllabuses from area colleges. They were up here; we were down here. For example, the district teaches physical science in grade nine, here we teach biology. The challenge is that the district asks, "Why do you need books?" I answer that we have really bright children we need to push. Because of our college focus, our standards are higher than state standards.*

Another significant factor revealing the coherence of the vision with school practices is Withrow's hiring procedure. Although the school's current reputation attracts high-quality candidates, the interview process is rigorous. Administrators look for an alignment between candidates and the culture of the school. Prospective hires are asked to submit lesson plans, to role-play in challenging student discipline cases, and to talk about how they deal with racial issues. In the words of one assistant principal, when hiring a new staff member, "We know it is going to work." If a mistake is made, teachers are "coached out," or they decide to leave.

The resulting quality and dedication of the teachers is evident to the students and part of what motivates them. When asked if they felt like they are prepared to go on to college and be successful, one student responded enthusiastically, "Yes! Teachers push you. They show you how to do it and then show you six *other* ways and then they tell you to do it." Another student offered, "We have a benchmark assessment coming up. Teachers push you to pass the benchmark. They work with you so you can stay level with an A or B."

Students embrace the school's mission. As one teacher put it, "Students buy into the college-bound thing. From day one they are no longer asked, 'Are you going to college?' It's: 'What college are you going to?' Someone says to them all the time: 'Ninety-seven percent of our students go to college.' So as a student I am thinking about it from the get-go." When asked what motivates him to do well in school, one student responded, "I believe I am going to be in college. I want to be a CEO and so I have to get A's and B's." Another responded with the frank answer, "Dollar signs. School is my job and I have to finish high school and college if I want to make money." Many students stressed that college was a way out of poverty for them and their family. Others balanced that with a desire to give something back, stemming from the same experience. Regarding motivation, a female student offered, "Not material things, but to help our generation do better. Since the economy is bad, I want to go into criminal justice to help get people off the street."

The common feature in all student responses was the unquestioned belief that each would be successful. This was true across career aspirations that ranged from professional athlete to

pediatrician. Significantly for inner-city students with the former aspiration, this was no short-cut pipe dreams' success. These students understood that the best path to the professional ranks was through college. They also knew the college path provided a plan B in case things do not work out and a retirement career even if things do.

High Expectations of All Participants

Withrow University High School's purpose for every student to graduate and attend college places high expectations on staff and students. Repeatedly, we heard that *although the district has standards, Withrow's standards are higher*. This begins with the staff. The most concrete expression of these expectations on teachers and students is the attention focused on test scores, specifically OGT results. Contrary to the common practice in many other schools, all test scores are tied transparently to individual teachers. Test scores are put on display in front of the entire faculty, and a spirit of healthy competition is encouraged. If teacher A outperforms teacher B, teacher B is asked about her plan for improvement. In addition, through interviews, teachers confirmed the common practice of teacher A gladly helping teacher B to be more successful. The effect of this culture is the statements that teacher B is not embarrassed to ask for help. According to Ms. Johnson, "We strive for *excellent*, not effective. Just effective won't do." One teacher told us, "One of the big things here is test scores. When I told people I was coming here, they said you would have to work on Saturdays and it was true. We go above and beyond. Some of us bring our own kids so we can be here on Saturdays. We provide the kids with bus tokens, breakfast, and lunch. No excuses."

At Withrow, however, this focus on testing does not default to teach-to-the-test strategies. Teachers are expected to help students succeed on the OGT through strategies that emphasize real-world application and depth of understanding over rote memorization. When asked what defined an excellent teacher, one teacher replied,

> *We have a district evaluation systemwide. That's fine. But for me my success is taking the students to companies like P&G, where they participate and are recruited for internships. The University of Cincinnati worked with our students for five weeks straight who were opting for engineering at the college. We want them to be part of the society in which they are going to work.* That *is success.*

Another teacher related, "History is the hardest OGT, but they were prepared. They don't need to

memorize everything but do need to understand." Asked to define an excellent teacher, a teacher said, "Student engagement is really important. The energy level of the teacher is a factor. Getting excited. Not sitting back. It takes a lot of creativity. Math can be abstract, and I am comfortable with that, but making it more concrete is a challenge for me. Recently, I taught direct variation equations by relating it to the number of passes thrown by a quarterback." Home finances are also used in math lessons.

The English Department selects different novels based on which gender they are teaching. Students in an all-male history class enthusiastically described a recent lesson on the start of World War I. "Our teacher told us how they just rolled up on Archduke Ferdinand and, bam, that's how the whole thing started. Governments are just groups of people, and they can do bad stuff, too." In an interview with the teacher who had conducted that lesson, he related that he connected the assassination to "two students who had gotten into a beef about a pencil. Two days ago, it was a bump and failed apology. That festered, and today they were arguing over a pencil. The pencil was the assassination of the archduke."

The OGT is not the only test WUHS uses to measure high expectations. Having had success with the state test, Withrow is using the ACT and AP to continue to raise its standards, while keeping the same focus on creative instruction. In an AP biology class, after the teacher outlined the task, a student asked, "So . . . you want us to collect a gas that's colorless and odorless and already exists in the air?" Students laughed, and the teacher replied, "Exactly! That's your challenge!" She went into the prep room for a few minutes and returned with an apparatus she had created with beakers, piping, and duct tape and told the class, "I brought this out to help you with your thinking about this problem." When the class was visited the next day, the various and inventive solutions the students had created were on display.

A student shadowed by a member of the research team corroborated this finding. "Although J. did not connect with all her teachers, she nevertheless paid attention to each teacher and did the work that was required. When asked what made the difference between connecting with a teacher and not connecting, she replied, "I like the ones who get to know who you are. My Spanish teacher really knows me, and how I like to learn, and I like that. But I have another teacher who doesn't really know me and talks all the time, and I don't learn that way. I need to have quiet time to process the work.""

Meeting the high expectations for engaged learning is a work in progress at Withrow, and students are encouraged to be part of the solution. When asked about factors contributing to the success of

the school, a teacher related,

> *This was my first full-time teaching position, so all I have to compare it to is my student teaching, but I would have to say it's the level of accountability expected by students. If you are going to fail a student you have to be able to back it up. Did you call a parent? Did you offer to make up work? Teachers have to work harder here not to allow students to fall through the cracks. You get called to principal's office and asked, "What steps did you take to keep this student from failing?" It's not just a shoulder shrug at the end of the quarter.*

Students are encouraged to have high expectations of teachers by administrators who invite students to bring to their attention teachers with whom the students are having difficulty. Responding to a question about decisions she makes about her own learning, a student said, "Well, we have no choice in class selection. But I am going to speak to Ms. Elliot about my biology class because kids are acting up. The teacher does not have control. The same group of kids acts differently in a different class. Other classes are strict. That's not right." Usually, when more than one student has complained to administration, that feedback is brought to the teacher. A debriefing session is held by an administrator in front of students, which starts a conversation between the teacher and students. One teacher said, "It's powerful. At first teachers find it offensive, but then they learn to adapt. They learn to listen to what students are saying."

The effort of teachers to live up to expectations held of them by administration, students, and one another inspires students at Withrow. One student told us, "Teacher motivation keeps me working hard. They care about your education. *They* work hard. They stay without getting paid." Staff communicate their expectations of "no excuses" and no "half hearted work" through modeling. Many students told us that what makes Withrow different is that "teachers ask more. Their expectations are higher."

Researcher: Do you feel that you are challenged in most of your classes?

Student 1: Yes, as a senior, I think that English is the most challenging because the teacher does *not* play. (All students agree.)

Researcher: Okay, so you all have the same teacher?

Student 1: Yes, right.

Researcher: And you say she does not play. Are all your other classes like that?

STUDENT 2: Well, it depends on what type of subject. English is the hardest subject we have right now because most of our classes might be different, like electives.

STUDENT 3: I want to say that, like, her *work* is not challenging; it is the *quality* of her work, like it could be a simple question, and you can't have just a two-word answer. It would have to be a page long or whatever. That's the challenge.

When asked what Withrow does to help them become a leader, a student responded, "They set high expectations. If you meet them, they reward you, and if you are struggling, they help you." Describing what makes for an excellent teacher at Withrow, a first-year teacher said, "High expectations. I am not going to dumb down my curriculum for these kids. It's insulting to them if I expect less." Like teachers, students are expected to stay late and come to school on Saturdays if necessary.

Expectations are high for all students. Asked to define a successful student, a teacher responded, "That's a value-added concept. It depends on where you are when you come in and where you are when you leave me. We have kids on every different level, from lowest of low to juniors ready for college. I have that whole range, and I can help you all move up a step." Another teacher responded, "It's holistic, not just academic. It's: Have you moved forward in all aspects, not just academics? You could not work in a group freshman year, but now as a junior you can. You are a success for having moved beyond where you came in." Another teacher related, "I have a student I am really proud of. She is autistic and has multiple handicaps. She is down at Fountain Square doing really well. She will be hired. Right now, she is in a rotation."

High expectations of students include expectations of behavior, as well as academic performance. For students coming from a lack of structure at home, this can be a challenge. Defining a successful student at Withrow, the administrative team had the following exchange:

ADMINISTRATOR 1: It goes beyond academics. Ms. Johnson is always pressing kids to be involved. It's not enough to just come here and get good grades. She encourages students to take leadership roles. We provide leadership opportunities and students have to do 60 hours of community service.

ADMINISTRATOR 2: The way students interact socially is another good barometer.

ADMINISTRATOR 1: Leadership. Learning to give back.

ADMINISTRATOR 3: Working with juniors and seniors, I can see the maturation process. For example, a student used to receive 504s for behavior, mostly temper tantrums. Recently she lied to me. She came back to me and said, "I lied to you." "I heard," I said. "Your coming back to me to talk one on one shows me that you have matured." She is a successful person because she has learned the life lessons we talk about in our family meetings. She said, "I didn't want to come to you 'cause I didn't want to disappoint you." Students know we have high expectations.

ADMINISTRATOR 2: [A former student] had attitude and anger management issues. She came from an abusive family. Now she is going to nursing school out on her own. She talks calmly. She came back and hugged me. It's nice to see the finished product. She even said, "'Thank you." She *never* said thank you."

Students concur that being a contributing member of the school community signals success. "Being successful here is about the amount of stuff you get involved in. After-school programs. Being involved motivates you to get good grades. I like being a student-athlete." A female student agreed that success is "taking advantage of what school has to offer. It's having a positive attitude. Trying to do your work. Making the right decision." A third student in that focus groups added, "A successful student is one who is doing community service."

Teachers and students reported that the uniform (which includes a blazer and tie) was the front line in the effort to improve student accountability and behavior. Unlike other high schools, team members in the uniform unite the staff at Withrow, rather than cause division and blame. A teacher, responding to a question about factors that contribute to the success of Withrow, said, "Discipline is pushed. We impose this expectation. It starts with the uniform, but it extends to everything." When asked if having a dress code was part of what made Withrow challenging, a female student said, "No! The dress code makes it easier. When I wake up, I already know what to wear. I'm not trying to impress anyone." Another girl added, "I think it makes us look professional, like if someone from a college comes in, and we are wearing nice pants, nice shirt, and a tie, it gives off a good impression." In another group, prompting for what students might want to change, we offered the uniform. A boy said, "The dress code? Nah, I'm cool with that. I don't have to worry about it. There's no judging."

Teachers expect students to behave to a degree that far exceeds their backgrounds. Asked if there were gangs in her school, Ms. Johnson replied, "Probably, but they don't surface because they have the fear of God in them. I talk about the gang like a dog. *We* are their family, and it takes the place of that. We let them know *we* have your back. It switches off in here. We have our own gang called 'AWA': Administrators with an Attitude." A female teacher related, "I had a freshman boy who was very

rambunctious [she used finger quotation marks around this word]. I talked to him about not losing sight of his character, of who he is, and about not caving to peer pressure. He would come back for extra help. Last year he accepted a full basketball scholarship to a university. He asked me to write a character reference, and I agreed without hesitation."

This exchange in a freshmen focus group shows the consistency:

RESEARCHER: Give me one word to describe your school.

STUDENT 1: Awesome.

STUDENT 2: Great.

STUDENT 3: Excellent.

STUDENT 1: Fantastic.

STUDENT 3: Strict.

STUDENT 2: Phenomenal.

RESEARCHER: Just one word, not several.

STUDENT 4: Horrible. (Other students laugh.)

RESEARCHER: Why would you say it was horrible?

STUDENT 4: When I first started here, I would say horrible, but not fantastic because at first, it was so strict and demanding, and it seemed like everybody was like "do this, do that," what they want us to do and don't do. I got used to that, and now I understand why they expect us to do so much. Because they want us to go to college, get a good job, and when somebody asks us where did we graduate from, we can say "Withrow" and have a proud look on our face.

Powerful evidence for the effect of these expectations on students at Withrow is seen in the junior who was shadowed. J. is a young African American woman who has been in the Cincinnati area her whole life. She is one of three siblings. She and her sister live with her mother; her brother lives with her father, who she sees at least once a week. J. admits that in freshman and sophomore year she was not a stellar student. She consistently received poor grades in all her subjects and got

into trouble with school administration on a weekly basis. In the middle of her sophomore year, J. chose to make some changes in her life. She is very close to her mother, and when she realized that the repeated calls from the school and the poor report cards were hurting her mother, J. decided to turn things around. She stopped seeing her old friends and began concentrating on her studies and "working *with* the school and the teachers instead of against them." The high goals the school set became her goals. When she passed the first round of the OGT test, she realized that when she sets her mind to accomplish something, she can do it. Today, J. is a self-confident young woman who wants to apply to Ohio State College and major in film production with a focus in special effects. During class time, she pays attention to the teacher and is often the leader in small classroom groups. J. wants to do well in each of her classes, she wants to make her mother proud of her, and she most of all wants to go on to college and be successful.

Working with Students from Where They Are

The emphasis at Withrow on expectations is matched by an equal emphasis on starting where students are and supporting them in immeasurable ways as they strive to be college bound. Significantly, this includes the African American heritage shared by 96% of the students. A female senior described an African American studies class she took as a sophomore by saying, "That class showed you how to maybe better yourself and how we came a long way but we still have a ways we need to go. The class really opened your eyes. It was kind of an emotional class also, learning about the history of African Americans." A male student in that same focus group had this conversation:

> Student: In my Latin class, right now me and my teacher [who is white] are real cool, real tight, but in my freshman year, we did not get along. But now he is like a father figure to me; he looks to me like a son. He and I can talk about anything. In his class, he teaches real stuff. He talks about politics, he talks about how politics were in his day and how they are now in our current society, and I think about Latin when I hear about politics and stuff like that.
>
> Researcher: Great story. What's the story about how you did not get along at first?
>
> Student: One day we got into an argument in class, and he came out and talked to me in the hall, and it was like, "I am not here to be against you; I am here to be your teacher and maybe someone you can talk to," so from that day on, it was like cool.
>
> Researcher: What changed was that he approached you in a way that defined what he wanted to be to you?

STUDENT: Right.

Another student said, "Not everyone in life is going to look like you. At first I wanted to go to a historically black college, but I've changed my mind. The work world is so diverse. So I just need to be myself."

In addition to race, working with students where they are at Withrow is part of the rationale for gender-separate classes. A male student told us, "My attitude has changed a lot since coming to Withrow. The way I look at stuff. The single-gender classes helped me to mature. Now I keep to myself on the street. It helps me focus." Teachers agree: "I teach boys and girls differently in social studies. The boys don't care what the women wore; the girls do. Plus, no one is snickering, trying to find a date. It takes away a lot of distractions." A small minority dissented. One teacher said, "As class size increases, having all one gender becomes more negative. For example, I have a class with 32 boys. There are days I think, if there were just five girls in here, they wouldn't act this way." or as one young woman put it, "Boys act stupid. If girls were in class, they might act smarter." Most, however, believe that the gender-separate classes are a significant factor in Withrow's success.

Working with students from where they are academically means dealing with the inequities in the many feeder middle schools for Withrow students. Asked to describe the academic culture of the school, a teacher related,

> *Well, there are students that are focused and driven. They come for extra help, and most don't need it. And then there are those in the middle. They have ability but are not focused. You can work with them. But then there is that difficult group. Our motto is "Where every kid is college bound." So there are students here who are not there . . . yet. Their parents want them here or a relative went here, but the parent has no clue. There is no one specific culture or attitude. Withrow is not your stereotypical urban school where no one is expected to succeed. Here there are no excuses for not succeeding.*

"We get them as ninth graders," another teacher said, "and they may have had eight years of other work that was not up to our standards. You get them up to speed by hard work and after school." Another teacher shared, "You try to take them to the next level. Sometimes it's hard. In 9th grade, there is a settling-down period: 'This is high school. This is how you keep a planner. This is study skills.' Does it sink in? We might have to read all of the first novel in class. Then the next time, a few chapters at home. The kids pick up my expectations eventually."

To deal with the disparity in their primary school experiences, Withrow's Summer Bridge Program has been in place since the school reopened in 2002. The connection with rising 8th graders begins even before students enroll. Withrow administrators, teachers, and students go visit sending elementary schools, rather than being part of a school fair that includes charters and private schools. According to Ms. Johnson, this "creates better intimacy, more of a family-type closeness. Urban students need that. A sense of connectedness, belonging, family — right from the start." Students who make a choice to come to Withrow attend a four-week summer program held on the campus of nearby Xavier University. The selection of location invites students to be thinking of college before they set foot in Withrow. In "Bridge," they are introduced to Withrow's academic standards. Gender separation begins from the start. In addition, they wear uniforms consisting of a polo shirt and jeans or jean shorts. Much of the time is devoted to building relationships with 9th grade teachers and one another. Teachers start working with students who have poor academic skills and poor self-esteem. A school psychologist helps conduct evaluations. Overage 9th graders, who were socially promoted, are given special attention. As one administrator describing the program put it, "We send the message that when you come into our house, you are ours."

From there forward, there is a high expectation that teachers will use data to improve teaching and learning. Teachers are expected to use baseline data on freshman, to identify gaps, and to do what is needed to fill in those gaps. Curriculum and pacing guides can be fluid. Review of data at all grade levels was reported to be "ongoing" and "daily." Discussing student success, one teacher said, "It's a broad parameter. Each student has an IEP, and we have to look at that student for where he or she is and then consider a month, week, or just this period. So we take a lot of snapshots." Much of taking "snapshots" is in the mode of short-cycle formative assessments. One teacher said, "I can use Dashboard [grading software] to look at a student by category. For example, I can say, 'OK, you are never doing homework. What can I do about that?'" Another teacher said, "I use Dashboard because it lets me see the same skill. I can see that all my students are low at using context clues to determine the meaning of words, so I adjust. Dashboard is something lovely. You can see things immediately and even break it down."

One structural element that helps the school address the issue of meeting students where they are is known as "7th Bell." Every day at Withrow there is a seventh period during which no particular classes are scheduled. Teachers are expected to be available, and students must stay until that period ends. Students seek out extra help, take makeup tests, complete homework that an after-school job prevents them from doing, and so on. When asked what program at Withrow should never be eliminated, 7th Bell was the most frequently referenced by students.

By far the biggest issue WUHS must face in working with students is their home life. Many Withrow students will be the first in their family to attend college. Many have parents who were not successful in high school. As one administrator told us, "We have to convince some of our students that it's OK to be smart. It's not a bad thing to want to do well in school." Explaining his greatest challenge working at Withrow, a teacher said, "Not being able to control what happens away from school. Not knowing if a kid is getting meals. Not knowing if anyone cares at home." One teacher, wrestling with the connection between poverty and academics shared, "You would think it was a fairly low expectation that you have to come to school every day. But with our kids . . . money . . . the recession. They're at home some days babysitting preschool siblings so Mom can go to work. It requires flexibility as a teacher. I mean . . . how do I penalize that?"

High Levels of Support

Without question, the engine that drives Withrow from the challenging starting place of their entering students to the levels of success expected of their graduating students is the support provided to students by teachers who are themselves supported by the administration and one another. This pervasive professional and personal resourcing is what resolves the tension between high expectations and working with students where they are. Referring to the "No Excuses" tag line of the mission statement, one teacher put it succinctly: "What everyone comes to realize is that we are going to provide you with the resources you need to reach your goals. We *eliminate* excuses by providing resources."

For staff, the primary resource is human; there is a high degree of collegiality among all the adults working in the building. As in other areas, this begins with leadership. When asked what distinguishes Withrow from other schools she had worked in, an English teacher who had come from a charter school said, "Organization. If I ask for something, I get it the next day. I needed more copies of a particular novel, and I had them the next day. The leadership takes care of teachers, not just students. Sometimes we can be so student focused. But it's balanced. Ms. Johnson asks you, 'What would you do if this were your child?' and if you have done enough, she will support you. We are not undermined by students."

An interesting finding given the high level of expectations placed on staff by administration is the amount of freedom and flexibility all teachers say they enjoy in their pedagogy. Having set lofty ends, Withrow's leaders support teachers by not dictating the means to those ends. At Withrow, having high standards does not imply standardized teaching. When asked about how decisions

are made about how and what to teach, the following discussion ensued:

> Teacher 1: For math, it's all laid out. We are given textbooks, rubrics, etc. It comes from the state. It's strongly dictated, but we can be flexible, using both our own ideas and those of our departments.
>
> Teacher 2: In some schools you have the structure, but no flexibility. Here you can focus on your strengths. We have a lot of flexibility, even though we have to stick with standards and district-issued finals. But *how* you do it is up to you.
>
> Teacher 3: That give-and-take between the standard and flexibility is key!

This level of trust in teachers is what empowers them to close the gap between where students are and becoming academically successful. Asked about how evaluation contributes to excellent teaching, a teacher responded, "We would all say we are good teachers, but we know what they are looking for when they come in. At the district level, they are looking for consistency: objectives posted, lesson plan ready to go, students know what is going on, attendance, teaching in general. But at Withrow, there is lots of flexibility. Sometimes we are asked to take into consideration demographics, poverty, a student's home situation. That has to come through in the *teaching*, especially when a student doesn't get it the first time."

This affects Withrow's professional development because district-offered programs that focus on standards and rubrics do not meet their need for developing flexible pedagogy. An administrator discussing the connection between professional development (PD) and student performance said, **"**The district requires PD, and it's one size fits all. So we send department heads for train the trainer. It seems to be working well. That lets us send teachers where we think they need to go. We can direct and offer. I like to do in-house. We had Gates money a while back, and teachers visited high-performing schools. Seeing it in action makes a big difference. We look for PD we feel we need for school."

Support is equally high among peers. There is a great deal of collaboration both within and among departments. Administrators shared that this is a challenge. "Creating a level of collaboration that works means changing the mindset of some teachers. High school teachers can sometimes want to be in their little domain. We try to get them to see the bigger picture. When a student comes to us and says, "The teacher teaches too fast," we go back to the teacher and ask him to slow down so that a foundation can be set because it affects later learning. That's about being a good colleague, as

much as it is about helping those students."

Teachers collaborate in a number of ways:

- All new teachers are assigned a mentor.
- Departments meet to talk about content and what works and doesn't work.
- Teachers meet in teams by grade level to deal with common issues having to do with discipline and the personal challenges their students face. Any concern from peeling paint to student's reading struggles to student hygiene is brought out into the open, discussed, and solutions are generated.
- Teachers have formed what they refer to as "mini-professional learning communities." These interdepartmental gatherings are to challenge one another to higher levels of teaching. At the time of the visit, much of this was focused on formative assessment, as well as on writing across the curriculum.
- If no students need help, teachers use 7th Bell to work with one another.

Many meetings are mandated by administration and allowed for by the schedule; others happen informally. The effect of these and myriad other ways the staff at Withrow collaborate is to create a powerful culture of collegial expectation and support. When asked about how their definition of an excellent teacher translates into the way teachers are evaluated, one teacher said bluntly, "The district doesn't have an evaluation that measures that. We are talking about climate — the expectations we have for one another."

Most refreshing was the reported frequency of peer observation and evaluation. At Withrow, visiting one another's classrooms, both formally and informally, is expected and routine. A chair of a department said, "I walk around every day. I talk to her [referring to a colleague] every single day. I am always sticking my head in and making sure you are doing what you need to do be doing. I am checking up on everyone." Another teacher said, "In science, there are high expectations to improve on our scores, so first bell I go to other science teachers to support them, and then I bring ideas back to department meeting for discussion." One focus group had this exchange on the topic:

> Teacher 1: I go sit in on other teachers during my planning bell. It reenergizes me. I am open to suggestions.

Teacher 2: Not in other schools! In other schools it's "Lock the door. Don't come in."

Teacher 3: It means no one here is hiding anything.

Teacher 1 (a veteran): I watch colleagues with proven track records. Let me try to be the best I can be because someone might be watching me, and I want them to pick up the right thing, not the wrong thing."

Another teacher, feeling she had to articulate why it was so important that they not operate in typical isolation said, "We've built relationships. We make ourselves open and approachable to one another. Teachers who may be struggling the most, they are not just hiding out. They are willing to ask for help. They are seeking it, not just waiting for it to be found out." Another teacher provided this rationale: "At the root of it all, the kids are at stake. You better get help so you can live up to that."

Finally, although not least important, the school's coaches are fully supportive of Withrow's academic mission and, therefore, of teachers. One student told us, "You can't play the sport if you are failing. And Coach makes you run if you get bad grades. Coach is on board with the academic priorities. Most of the coaches are teachers. And if they're not, the teachers go to your coach. At this school, there are *higher* expectations on athletes."

Like the support enjoyed by teachers, support for students is both vertical and horizontal. In addition to teachers staying late, working Saturdays, providing bus fare, calling home, and taking into account a student's need to work or care for siblings, students told us that teachers also give out their e-mail addresses and phone numbers and frequently respond to calls or e-mails at night. One teacher put it plainly, "We don't let them fail. We offer a 7th Bell. We give after-school help. We do everything we can to help students succeed. We have to work harder to help them succeed than they are working to fail."

In response to a question about how Withrow is rigorous for all students, teachers responded:

Teacher 1: I don't let them or myself off the hook. I have to do everything I can. I had a student passing with A's and B's in all subjects except algebra. I physically walked him to tutoring.

Teacher 2: It's never just one teacher. Last year a student was struggling — behavior, socially, family, everything. Teachers were trying to deal with it in isolation, but pretty quickly we got on the phone after school and talked. We worked as a team and got a holistic plan. In the end she said thank you. It was like an intervention. Different teachers working together to help her. With

kids, building that initial relationship is key. So that when I have to say what I need to say, call home, pop quiz, it's OK. Then the kids know "She is only doing this because she wants me to be best I can be." I love you all the time, so when I need to say something, I will.

Teacher 3: I had a young man who failed first quarter. It was close. I called home. The relationship was hard to build, and he was unresponsive. One day I overheard him say (about me), "That white bitch." I made it clear I heard him. I walked up to him and said calmly, "Don't call me a white bitch again." Now he is in my lunch bunch. Now he is becoming much more academically focused. What I was trying wasn't working, but I wasn't going away. I tried another way.

Again, because of the importance of sports and co-curricular activities, coaches play an important supporting role. A student related, "Coaches have expectations on us when teachers are not around. They make it part of the culture of the team. They tell you that you have to train your mind, not just your body." Another young man said, "I tried out for basketball team and had a long talk with the coach. He said, 'Life isn't just basketball.' I want to be a journalist, and right now, I am working on poetry."

Students also provide a great amount of support and encouragement to one another. We heard the following exchange a number of times:

Researcher: What motivates you to do well in class?

Student: My peers.

Researcher: How do your peers help you?

Student: They push me do better, to keep doing my work. They just keep pushing me to keep going. If I don't understand something they show me how to do it; they push me until I get it right.

Researcher: Can you give me an example of that?

Student: Like, my friend was helping me with this math problem. I did not understand it all; we were not getting the same answer. He showed me how to do it to get the right answer. I tried it over again and got the same answer he did.

As with teachers, note the combination of high peer expectations (they push me) combined with an equal amount of peer support (they show me how to do it). Peer support is encouraged in classes. In a 9th grade English class, students worked in groups on editing a writing assignment. The teacher visited each group and offered personalized instruction/suggestions for improvement for each student. In another English class, students formed literature circles to read and discuss assigned reading. Each group was responsible for reporting on their discussions to the class and for teaching new concepts.

Student support services are a tremendous asset at Withrow. Intervention specialists and case coordinators handle 504 plans. They hold team meetings and help plan interventions for students who qualify for special services. The Withrow teams are trained to deal with multiple disabilities, cognitive disabilities, and dual diagnoses, even though the Cincinnati public schools recognize only one disability, whichever is most severe. At the time of the visit, 130 Withrow students had IEPs, and four had 504 plans.

At one end of the spectrum are students with moderate cognitive or behavioral challenges. A special education teacher was observed strongly encouraging a student to go outside his comfort zone when preparing for project presentations. When a female student told him, "I can't do that. I can't talk in front of the class," the teacher replied, "What have I told you about 'can't'?" She smiled and said, "I know . . . there's no such thing as 'can't.' We can do anything." Tutors are provided to students with cognitive challenges. One tutor shared, "With a student on IEP, you count those kids out to a degree as to how academically competitive they can be when in college. One student [a graduate] was pulled out for tutoring. His writing was atrocious; he would stay up all night trying to do his homework. I made him bring it to me and read into a tape recorder and then listen to it. He could speak more coherently than write. He worked hard. Sometimes students think the IEP will save them from their best effort, but not if you do it right. That kid went to Tuskegee in Alabama and is now a senior." We heard more than one story of students in their first and second year in college who came back with some difficulty they were having and were fully supported by their former Withrow teachers.

At the other end of the disability spectrum, we heard of a multiply disabled student who graduated last year. He had stayed a few years longer due to autism but was not yet eligible for adult services. According to his former specialists, "We tried everything. Work resources, IGA, Easter Seals. We tried a lot of things and finally found his niche: Goodwill. He is doing very well. Now he is employee of the month. Best worker they have had." Another specialist in that focus group said, "Even though we are college bound, special education kids do not go into college. But we have better success with them

than other schools. We don't graduate kids to sit home and sit on a couch. Students can opt to stay one or two years longer. We take it personally. We know where all our graduates are and what they are doing. Adult services do not want to work with teachers because of how hard we advocate, so we have to get it done before they are legally required to move on."

One of the greatest assets in support of students and staff at Withrow is a United Way social services program called Families Forward. Even though technically a separate entity, they have offices at Withrow and are intimately involved in the life of the school. At the start of each school day, they are at the front door assuring students are in uniform. If not in uniform, they ask students how they can help. They monitor tardiness at the beginning of the day. They deal with truancy and find out if there is a legitimate reason for a student's absence. They support teachers by overseeing time-outs, providing conflict resolution, and dealing with behavior problems. When a teacher writes a referral form, they investigate, assess, and intervene as needed. If the behavior is repeated, they implement a behavior modification plan. If necessary they involve parents and provide the student a chance to help create a contract. As the director explained, "We want to help students reach their goals."

In addition to supporting teachers in this way, Families Forward does much of the work that would otherwise occupy large chunks of an administrator or counselor's time. They go to court, do home visits, meet with parents, and follow up with psychologists or family counselors. School counselors are then free to focus on academic support. One counselor, who had been in the Cincinnati public school system for six years, was in her first year as a counselor at Withrow. She explained that many Cincinnati schools have one counselor. She went on.

> *It's like "I know I have seen you . . . what is your name again?" Here I have other things in place, so I know the kids. I know these children. That's the impact of other people [Families Forward] helping me do certain things. I can now have a more personal relationship. They can come in more often than they should. We have actual warm relationships. I can get on them about missing homework. I can follow up. Call parents. The atmosphere is very different from a counselor perspective.*

Teachers and students alike spoke highly of the benefits enjoyed by having these allies so closely connected to the school. One teacher shared, "We had this freshman come here with unimaginable family issues. A lot of personal drama. Families Forward stepped up and heard about all the drama and connected her to resources so she could get here every day and focus on school. They monitored her all four years. It's a real partnership. They checked her grades every day. They

worked with her after school every day. They talked to her teachers every day. They got her into independent housing. They are wonderful at coordinating things. Now that girl is in college and doing really well as a freshman."

In summary, Withrow University High School effectively delivers a high-quality education for its students. Although conditions like more widespread student engagement and personalized relationships with students are not universally in place, unquestionably Withrow is highly successful. Their graduation rate and college acceptance rate far exceed district, state, and national norms. They achieve this with leadership that drives a coherent vision of success from one end of the building to the other, gathering enrollment from all participants, and ensuring school systems support the high degree of effort staff and students expend. All the adults at Withrow have a deep commitment to work with students as they are — black, adolescent, poor, unprepared. Helping each student achieve his or her fullest potential, which for most at Withrow involves a college education, is energized by the high expectations each member of the community has for the others and a commensurate level of support from all quarters. No excuses.

Summary

This initiative was outlined before "multiple measures" emerged to the forefront of school evaluation as a priority. For many educators, the Learning Criteria Index became an effective tool to begin framing how to define multiple measures of school performance and communicate them to their community. The key drivers of this inquiry take on an even greater significance as states become more aligned in their standards through the Common Core State Standards and the development of a 21st century assessment of them. The questions that drove this inquiry are all key parts of an ongoing effort of education researchers to help define successful practices:

- Using a range of measures that are balanced for state levels of proficiency, what factors contributed significantly to success?
- What common experiences or opportunities exist across the highest performing schools?
- What replicable cultural factors emerge that impact student performance?

This report articulated the themes and key findings of leadership, high expectations, relationships, student opportunities, and professional culture as replicable building blocks necessary for schools focused on continuous improvement. The more challenging task of this research was to identify how these work in high-performing schools, a key part of the qualitative research conducted in the last year of the grant. Although clear evidence emerged that can be analyzed, further study will draw a more defined correlation through a wider range of metrics that are collected reliably and consistently over a study period.

Implications for Further Study

The analyses in this report suggest that the Learning Criteria Index (LCI) can be used to help schools implement a tool that measures a school's formative progress. The qualitative research supports the general conclusions of the LCI and individual school performance, and it adds a critical element to understanding the quantitative data at an experiential level. For instance, the way those in a school answer questions such as What factors contribute to the success of this school? What words would you use to describe the academic culture of this school? contributes a significant understanding to the level of performance assessed in a school. In short, future versions of the LCI need to add additional qualitative data beyond the data already collected.

However, as noted by Measurement Incorporated (released as a separate report, September 2010), challenges in data collection created instability across the study group. We believe more modern data systems and technology capabilities will reduce this effect considerably. Overall, this study revealed connections that should be regarded as exploratory and provisional.

This version of the LCI revealed certain factors that elevated our understanding of why some schools improved more than others. By far, the most critical predictor of outcomes was students' perceptions of school membership and belonging: Schools where students felt a greater sense of connection and support tended to have higher reading and math proficiency percentages and lower dropout rates than schools where students felt less connected and supported. The use of exemplary school practice — specifically, strategies related to school accountability, articulated curriculum, rigorous instruction, school climate, and personalized learning — also was predictive of better student outcomes. Accordingly, schools that made greater use of these practices had higher reading achievement and lower dropout rates than schools that implemented fewer of the practices. These findings parallel what seminal research on effective schools has indicated: differences in schoolwide strategies and teaching practices coupled with more personalized learning for students can fundamentally influence achievement at the high school level. Indeed, cultivating learning communities that afford more rigorous, relevant, and personalized opportunities has been a prominent part of high school redesign endeavors.

Based on preliminary results from the study, future research and development in the following areas should be pursued. These recommendations are organized around the two main objectives of the grant.

School Measurement

- Design an LCI that can be used with middle and elementary schools to better draw out the effect of those schools and the feeder pattern they create for high schools.
- Expand the LCI to include a more reliable measurement for personal skill development (one of the four learning criteria).
- Expand the LCI to include more longitudinal data as it becomes available.
- Expand the LCI to include a reliable measure of factors that define high-quality school leadership.
- Based on a statistical analysis, refine the instrument used for the site visit reports.

- Create a web-based format that has the programmed capability for instant data entry and reformation of the API score.
- Expand the *n* to make the data more stable.
- Expand reporting to include national and international benchmarks.

School Improvement

- Organize networked resources around each of the metrics.
- Expand resource capacity (e.g., teacher videos, streaming demonstrations, etc.) for more effective professional development.
- Align professional development to specific metrics of the LCI, and evaluate the professional development on student growth and outcome data.
- Study the conditions that promote academic excellence and correlate them to specific measurement points of the LCI.

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Appendix 1: Adapted Quantitative Report from Measurement Incorporated

Introduction

Schools across America, faced with the challenge of helping all students achieve high standards for learning, need clear guidance on how to engage in lasting, effective improvement efforts. But after more than 25 years of research efforts, no clear consensus exists for how to get the job done. In some cases, schools are presented with prescriptive, one-size-fits all reform models, which often fail to take into account local context or nuances. In other cases, schools are given a broad framework or set of principles to guide development of their reform process. In these instances, reform efforts often become so diffuse or abstract that they fail to improve student performance.

For many years, the International Center for Leadership in Education's Successful Practices Network (ICLE/SPN) has been a significant player in assisting high schools to provide a more rigorous and relevant education for all students. It has done so by balancing a prescriptive content approach with a context-driven process approach. That is why in 2005, in conjunction with the Council of Chief State School Officers and financial support from the Bill & Melinda Gates Foundation, ICLE/SPN embarked on a five-year initiative to support the work of "promising" high schools across the country that demonstrated an interest and capacity to rethink their organizational and instructional programs to achieve better outcomes for students. Seventy-five (75) high schools from 10 targeted states are participating in the initiative. This project provides clear, specific, research-based guidance for what to do in schools, but also helps schools learn the "art" of continuous improvement by helping them understand the many nuances and complexities of school change.

This guidance is offered across ten key components fundamental to school improvement, including a culture of high expectations, data-driven decision-making, accountability, articulated curriculum, rigorous and relevant instruction, personalized learning, professional learning communities, partnerships, school climate, and leadership.

In addition, ICLE/SPN has identified four Learning Criteria that, when in place, distinguish successful high schools from their non-successful counterparts. The Learning Criteria are:

1. **Core Academic Learning**: how well students learn in English language arts, mathematics and science.

2. **Stretch Learning**: the degree to which students experience rigorous and relevant learning beyond minimum requirements.

3. **Student Engagement**: the extent to which students are motivated and committed to learning; have a sense of belonging and accomplishment; and have relationships with adults, peers, and parents that support learning.

4. **Personal Skill Development**: the level to which students develop personal, social, service, and leadership skills, as well as positive behaviors and attitudes.

Since the project's inception, ICLE/SPN has been closely monitoring the progress of the 75 schools through a variety of data collection activities. In 2007, the International Center believed that it was at a point where it could reasonably ask, "What are the data telling us?" To address this overarching question, the Center commissioned Measurement Incorporated (MI) to conduct a research study focusing both on school processes and outcomes. The central purpose of this effort was to capture the journey these "promising" high schools had taken to become "proven" schools and, by doing so, further the Center's ultimate goal of helping all schools move to a higher plane of excellence. Meeting this broad purpose involved a set of research activities aimed at (a) examining how the SPN schools had changed over the course of the study; (b) understanding why some SPN schools performed better than others; and (c) identifying SPN schools with exemplary performance, i.e., "proven" schools.

Measurement Incorporated, a nationally recognized assessment firm, has successfully implemented more than 2,000 evaluation studies over the past 35 years. Our diverse client groups include the U.S. Department of Education (ED), state education departments, large urban districts, corporations, foundations, institutions of higher education, community-based organizations, and hundreds of public and non-public schools. MI's approach to the study was based on our long history of conducting high-caliber, customer-focused evaluations, as well as our considerable experience working with educators and students of all grade levels.

This report presents the results of our two-year study of the progress and outcomes of high schools in the Network. It begins with a comprehensive presentation of the study methods, and following the results section, we offer a set of concluding remarks.

Methodology

In this section, we describe the procedures and statistical methodology used to conduct the study. We begin with a discussion of the research questions that guided our work. We then describe the study variables, the data collection procedures, and the analysis techniques. We end this section with a synopsis of study strengths and limitations.

Defining the Research Questions

The research questions for this study were selected in close cooperation with SPN staff to meet their overall purpose of helping "promising schools" move to a new plane of excellence: "proven status." To reach this ultimate goal, we jointly selected three questions to be addressed by the study:

- What changes in SPN schools have occurred over time?
- Why do some schools do better?
- Can we identify SPN schools that have been more successful than others in contributing to student learning?

The **first question** was of great interest to SPN staff, in that they had been tracking the progress of the targeted high schools for several years in accordance with an effective schools framework—*Learning Criteria: A Tool for Continuous Improvement*—and wanted to know more about the journey these schools had taken to achieve better outcomes for students. Ideally, this would have involved examining a robust set of indicators/outcomes linked to the *Learning Criteria* (see **Exhibit 1**), as well as a set of school processes, and analyzing changes over time: from the 2004-05 baseline year to 2007-08, the final year of data collection. Unfortunately, (as we discuss later), data on many of the *Learning Criteria* indicators were unavailable for most schools. Likewise, for most schools, the most recent year of accessible data was 2006-07. As a consequence, our study focuses on a subset of indicators over a truncated time frame (i.e., three rather than four years). We address the research question of *change* over the three-year period by conducting several different "pre-post" analyses involving both the outcome indicators and school processes and apply a statistical test to determine the significance of the pre-post differences. It is important to point out that although we studied a subset of outcome indicators, those examined are among the most widely used in

research that profiles/grades states and schools on educational effectiveness.[1]

The **second question** in our study goes beyond the examination of change to explore variations in outcomes, specifically why some schools have better student outcomes than others. This issue was of keen interest to SPN staff, in that much of their work with targeted schools centered on promoting the use of the *Learning Criteria* as a tool for improvement covering such educational *processes* as school climate, leadership, core curriculum, instructional strategies, professional development, community partnerships, and student belonging/school membership. The staff documented school performance in these process areas by administering a variety of instruments including surveys and a rating rubric of school quality completed by external reviewers. The staff's intent was to peer inside the "black box" of schools to gain further insight about what components or processes are associated with superior student outcomes. We address this intent, and thereby answer the research question, by performing a number of exploratory statistical analyses examining the relationship between school processes and student outcomes.

Exhibit 1. Learning Criteria and Related Data Indicators: The SPN School Improvement Framework

Learning Criteria Categories	Sample Data Indicators
Core Academic Learning	■ Percentage of students reaching the proficiency level on state tests ■ Average scores on the ACT/SAT/PSAT ■ Percentage of students graduating high school in four years ■ Percentage of students earning a college degree within four years after high school
Stretch Learning	■ Dual enrollment (high school and college) ■ Participation/test scores in International Baccalaureate (IB) courses ■ Enrollment in advanced math or science courses ■ Enrollment in Advanced Placement (AP) courses/scores on the AP exams ■ Achievement of specialized certificates
Student Engagement	■ Attendance rates ■ Graduation rates ■ Dropout rates ■ Disciplinary referrals ■ Percentage of students going to two-year or four-year colleges
Personal Skill Development	■ Participation or hours in service learning ■ Leadership positions in clubs or sports ■ Personal skills: time management; ability to plan ■ School awards ■ Scholarships ■ Respect for diversity

1 Profiles on educational effectiveness that rely on similar indicators include those issued by the U.S. Chamber of Commerce, Education Week, the Education Commission of the States, the American Federation of Teachers, the Data Quality Campaign, The Education Trust, and the Thomas B. Fordham Foundation (U.S. Chamber of Commerce, 2007).

The **third research question** most closely relates to the ultimate goal of SPN: to help promising schools move to proven status. SPN staff reasoned that if we could identify the top performing or proven schools, these schools could serve as demonstration sites, where, through guided site visits, staff from the promising schools could receive in-depth mentoring in areas needing improvement. To reach this goal, MI and SPN staff collectively decided on a methodology that would enable us to rank schools in a balanced way using both process and outcome data. The cornerstone of this ranking process is an **Academic Performance Index** or API (discussed in the analysis section). The API provides an overall assessment of each school's contribution to student learning in three main areas: (1) school processes, (2) student outcomes, and (3) student progress. By taking into account process and outcome data, the API furnishes a fair, consistent, and scientifically valid means of ranking schools and identifying the most successful performers.

Selecting the Study Variables

As noted, SPN staff had been gathering data on the 75 targeted high schools since the inception of the project. All data procured were maintained in organized databases or spreadsheets, with the most comprehensive spreadsheet containing scores on the *Learning Criteria* indicators. The other databases contained scores from three project-administered instruments measuring school processes: the *Organizational Health Instrument* (OHI), the *My Voice* student survey, and the *School Improvement Rubric (Rubric)*. Given the volume of existing data, one of the first tasks confronting our researchers was to examine the databases to better understand what was available across all the schools and what additional information would be needed to answer the research questions. To this end, we conducted an **Evaluability Study**, undertaking a series of preliminary analyses including frequency runs for all outcome indicators and an exploratory factor analysis of the process variables. Our primary goal was to select the final variables for the study, and in particular, the variables that would comprise the API.

Outcome Variables

From the frequency runs, we learned that most targeted schools (i.e., 40% or more) furnished data on a select and small number of outcome indicators. These indicators are as follows:

- State assessment test scores in reading/English Language Arts (ELA)
- State assessment test scores in mathematics
- SAT and/or ACT scores
- Attendance rates

- Graduation rates
- Dropout rates
- AP enrollment and achievement data
- College admission and enrollment rates

In contrast, far fewer schools (25% or less) supplied data pertaining to college degree attainment, IB enrollment, enrollment in advanced science or math courses, attainment of specialized certificates, scholarships awarded, credits earned to graduate, and numerous other *Learning Criteria* outcomes.

These findings led us, in consultation with SPN staff, to select the eight indicators bulleted above as our final outcome variables.[2]. These variables not only were central to SPN schools in their quest for improvement, they are among the most widely used in research that profiles/grades states and schools on educational effectiveness.

Process Variables

Firmly believing that schools need to create the conditions that help teachers teach students, SPN staff placed a premium on capturing school practices/processes through varied data collection activities. Three standardized instruments were central to their progress monitoring efforts: the OHI, the My Voice and the Rubric. Each of these measures consists of numerous items and scales that "conceptually" tap various school improvement components (see **Exhibit 2**). Postulating that some of the scales within the instruments might be overlapping or redundant, we performed an exploratory factor analysis to identify the final set of process variables.

2 As will be discussed in the Data Collection section, the outcome variables were winnowed down even further due to the lack of available data in many states/ schools

Exhibit 2. OHI, My Voice, and Rubric Scales

Process Instrument	Scales
Organizational Health Instrument	Goal Focus Communication Adequacy Optimal Power Equalization Resource Utilization Cohesiveness Morale Innovativeness Autonomy Adaptation Problem-solving Adequacy
My Voice	Belonging Heroes Sense of Accomplishment Fun & Excitement Curiosity & Creativity Spirit of Adventure Leadership & Responsibilities Confidence to Take Action
School Improvement Rubric	Culture of High Expectations and Support Data-driven Decisions Accountability Articulated Curriculum Rigorous and Relevant Instruction Personalized Learning Professional Learning Communities Partnerships School Climate Leadership

The factor analysis[3] indicated the following:

- The 10 OHI dimensions were very highly correlated; essentially, they measured one underlying factor: *organizational health*.
- The My Voice instrument, too, appeared to measure one underlying factor: *school membership/belonging*.
- Finally, only one factor emerged from the analysis of the 10 School Improvement Rubric components: *exemplary school practice*.

Thus, the many components assessed by project-administered instruments were reduced to three underlying factors: (a) organizational health, (b) school membership/belonging from students' perspectives, and (c) exemplary school practice. These factors, thus, became the final process variables for the study.[4]

3 The number of schools with available data was small (N~50), thus the factors that emerged must be viewed with caution. It is quite possible that with data from more schools, additional factors might have materialized. This is particularly true for the Rubric, where reliability analyses supported each of the 10 subscales.

4 Our research team knew from the start that the size of the sample (only 75 high schools, and even fewer with data) would preclude any meaningful analyses linking school processes to outcomes. So although only three process variables were identified, we would not have been able to accommodate any more in our multivariate analyses without violating statistical rules.

Collecting the Data

Our data collection strategy had three distinct phases.

Phase 1: Extracting Data from Secondary Sources

Our original plan for data collection was to rely upon the data maintained in SPN databases and to tap secondary sources only to fill in gaps. This plan, however, changed early on, in that the initial frequency runs of the outcome indicators highlighted a number of inconsistencies in SPN spreadsheets. As a result, MI and SPN staff jointly decided that extracting data from secondary sources should be the primary data collection strategy for outcomes. For the process variables, the original plan (i.e., using information contained in SPN databases)remained intact; the process databases furnished scores for two instrument administration points: 2006 and 2007.

We identified two secondary sources to gather needed outcome data: (1) the Common Core of Data (CCD) data files maintained by the National Center for Educational Statistics (NCES); and (2) State Education Agency (SEA) websites. From the CCD, we downloaded school-level demographics including information on enrollment, race/ethnicity, gender, and participation in free and reduced-price lunch. From the SEA websites we had hoped to extract data on the eight outcome variables for three school years: baseline, 2006-07, and 2007-08. To facilitate the data extraction process, we developed a series of data templates—one for each outcome—with corresponding instructions and decision rules. Each template also contained a set of notes indicating where relevant information could be found on the SEA websites. We trained three data collectors to obtain the information and fully expected the process to be fairly straightforward. After several months of downloading report cards and/or working with interactive websites, we realized that this would not be the case. Our efforts were thwarted by several factors including missing data, hard-to-locate information, and inconsistent results. This was true for nearly all variables and for a substantial number of targeted schools. Maine was particularly problematic, in that it replaced its high school accountability test with the SAT in 2006, rendering a comparison of student achievement changes over time infeasible.[5] Apart from Maine, we also encountered problems locating SAT/ACT scores, AP enrollment/results, attendance rates, and college-going rates. Since these variables accounted for half of our final outcomes we opted for a second data collection strategy: downloading state databases.

5 All Maine schools were subsequently eliminated from the data set and further analysis.

Phase 2: Downloading Statewide Databases

To obtain the state databases, we contacted assessment officials in each state and requested the data files. While we only needed data from, at most, 10 schools in each state, we were sent the entire K-12 databases, covering hundreds of school metrics. Analysis of the data, while time-consuming, helped to fill in gaps for a number of outcomes. At the conclusion of our work, we had near complete (95%) reading and math achievement data for all targeted schools (except Maine) for two of the three study years: baseline and 2006-07. Similarly, we had about a 75%-85% completion rate for attendance, dropout, graduation, and SAT/ACT data for all schools in both years.[6] Data on AP and college-going rates, however, remained spotty; we found only one state with college-going information and four states with AP data, but each state used a different method to calculate both AP enrollees and passing rates. Our last alternative to gathering the missing data was direct school contact.

Phase 3: Obtaining Data from the Targeted Schools

To facilitate information collection at the school level, we prepared data templates and *School Level Data Request Guides* personalized for each school with missing data. This effort was expanded to *all* targeted schools when SPN staff decided, based on feedback from the schools—to gather additional measures of Stretch Learning; these measures included dual enrollment and IB enrollment and passing rates. We sent the data templates and guides to SPN data coaches in each state who, in turn, forwarded them to the schools. Coaches then followed up and kept us abreast of the data collection process. Unfortunately, the school-level data collection process filled in very few gaps, and even with a second mailing, we could not obtain consistent information on AP and college going-rates, nor on dual enrollment or IB enrollment and passing rates. Feedback from coaches indicated that for many schools, the information requested was not collected at the school level. Consequently, we decided to abandon further attempts to gather data on the Stretch Learning variables and on college-going rates.

Ultimately, our data collection efforts resulted in a fairly complete data set for the following six outcome variables.

- State assessment test scores in reading/ELA: % of students at or above proficiency
- State assessment test scores in mathematics: % of students at or above proficiency
- SAT scores:[7] total score: verbal + math
- Attendance rates: average daily attendance
- Graduation rates: cohort rate

6 As noted in the Research Questions section, the amount of missing data for 2007-08 caused us to drop this year from the analysis.

7 ACT data were converted to SAT scores using conversion tables produced by the College Board (2008). [SAT-ACT Concordance Tables. Retrieved September 26, 2008, from http://professionals.collegeboard.com/profdownload/act-sat-concordance-tables.pdf]

• Dropout rates: total 9-12 dropouts ÷ total 9-12 enrollment

A complete breakdown of the number of schools with outcome and process data at baseline[8] and 2006-07 is shown in **Exhibit 3**. Maine schools are excluded from these counts.

Exhibit 3. Number of Targeted Schools with Process and Outcome Data

Variable	Valid N Baseline	Valid N 2006-07	Valid N Both Years
Reading/ELA Scores	67	66	66
Math Scores	67	68	67
SAT/ACT Scores	51	63	51
Attendance Rates	62	61	61
Graduation Rates	67	67	65
Dropout Rates	59	67	59
OHI Scores	54	50	38
My Voice Scores	56	52	44
Rubric Scores	48	42	30

Analyzing the Data

Analytic Approach

One of the challenges in conducting an analysis of outcome data across multiple states is that each state has its own data collection system and its own method for reporting results. Although, in recent years, there has been an attempt to standardize reporting for such variables as graduation and dropout rates, states continue to have great latitude in what and how they report student achievement data. As a result, assessment results, typically represented by the percentage of students scoring at or above proficiency, vary significantly from state to state. Many attribute this variation to differences in the stringency of the standards adopted by the states.

A major issue for our analysis, then, was how to summarize data across all SPN schools to make meaningful statements about change and overall school performance. The method we selected relies primarily on *z-scores*, which measure the distance of a score from the mean in standard deviation units. The use of z-scores facilitates comparisons across states by putting all test scores on a common scale, regardless of the original metric used. Z-scores, however, do not take into account the relative difficulty of state tests and standards. To deal with that matter, we converted the z-scores to an **NAEP** (National Assessment of Educational Progress) metric based on a methodology used by the NCES in a comprehensive study of the U.S. educational system.[9] The NAEP, also know as the Nation's Report Card, provides a uniform measure of student achievement that is independent of state tests. By applying the NAEP conversion[10] we, in effect, were able to place state test scores

8 The baseline year for the six outcome variables was 2004-05. The baseline year for the three process variables was 2005-06.

9 National Center on Education Statistics. (2000). School-level correlates of academic achievement. Washington, DC.

10 In adopting the NCES methodology, we correlated the percentage of students scoring at the proficient level on state tests with the percentage reaching the basic

and standards on a common scale and thus provide a more credible indicator of state-by-state assessment results.

Exclusions

Although this study was designed to include all 75 high schools in the Successful Practices Network, a number of circumstances resulted in the need to exclude some schools from the analyses. As we already discussed, all five Maine schools were eliminated from the data set because the state's conversion to the SAT as the high school assessment rendered findings on school progress uninterpretable. We also excluded a small number of schools from certain analyses because their scores deviated significantly from the rest of the schools. We did this by running a box plot for the final outcome and process variables (identified in Exhibit 3), for each year in the database, and for the change/progress across years. Overall, 20 extreme scores/outliers[11] were detected and deleted; the deletions were spread among the remaining 70 schools in the database. In other words, no one school had a significant number of deletions across the 27 possible scores examined.

Overall, with the exclusion of Maine schools, the deletion of extreme outliers, and missing data, our school sample across variables averaged about 60. Though our analyses could accommodate this smaller N, it came at a cost: a reduction in statistical power.[12]

Addressing the Three Research Questions

What changes in SPN schools have occurred over time?

To answer this research question, we ran paired t-tests for all final process and outcome variables. These variables[13] were as follows:

- Converted to NAEP reading/ELA scores (ELA/NAEP)
- Converted to NAEP mathematics scores (Math/NAEP)
- Attendance rates
- Graduation rates
- Non-dropout[14] rates

level on the NAEP.

11 Defined as more than three times the interquartile range from the rest of the scores.

12 Statistical power is the ability to detect a statistically significant difference. With small samples, statistical significance is not as easily found unless the *effect size* (measured in standard deviation or SD units) is moderate or large. With an N of 60, we would be able to detect a moderate effect size.

13 Well-established research suggests that SAT scores are highly unlikely to show shifts over time, thus SAT scores were not included in the analysis of change.

14 The dropout rate was rescaled to a non-dropout rate by subtracting it from 100. We did this to ensure commonality

- OHI total scale scores
- My Voice total scale scores
- Rubric total scale scores

We also ran paired t-tests on the subscales of the OHI, My Voice, and Rubric.

Why do some schools do better?

We had planned to address this research question by running a series of multiple regression analyses using all three process variables to predict each of the outcomes. Before doing so, we conducted an exploratory hierarchical regression analysis to examine the relationship among variables. In the first step of the regression, each of the six 2006-07 outcome variables (i.e., the five bulleted directly above plus the SAT total score) was regressed onto its corresponding baseline score to control for "pretest" effects. For example, 2006-07 Math/NAEP was regressed onto 2004-05 Math/NAEP. In the second step, "percent minority students" was entered into the equation, thereby controlling for between-school differences in minority composition. In the final step, each process variable[15] was entered into the equation.

The results of the exploratory analysis (discussed in the Results chapter), enabled us to determine whether further multiple regressions using *all* process variables as predictors would be necessary. We found this not to be the case. Moreover, the small N would have precluded entering more predictors into the regression model. Thus, to answer, "*Why do some schools do better*?" we relied on the hierarchical regression results. We supplemented these results through correlational analyses where we explored the relationship between each of the OHI, My Voice, and Rubric subscales and each of the outcomes.

Can we identify SPN schools that have been more successful than others in contributing to student learning?

This question was addressed via a school ranking process based on an Academic Performance Index. The backdrop for creating the API ranking methodology stems from a fundamental project goal: helping promising schools move to proven status. SPN staff viewed the API as a way of identifying *best practice* to be shared across the SPN community. As originally conceived, the API was to be a one-number summary of each school's performance on outcome indicators. However, after lengthy discussions with SPN staff and recent developments in the field,[16] we collectively

in score direction, i.e., all "high" scores represented better outcomes.

15 We ran separate regressions for 2006 process scores, 2007 process scores, and the residual scores (e.g., OHI 2006, OHI 2007, and the OHI residual). The residuals were calculated by regressing 2007 scores onto 2006 scores.

16 These developments include the use of educational indicators in state and local accountability plans.

decided to expand the API to include process indicators and indicators of learning progress. The **Final API** composite, thus, consists of three main components: (1) a school process index (*Process API*), a student outcome index (*Outcome API*), and a student progress index (*Progress API)*. These components are explained below and summarized in **Exhibit 4**.

1. *Process API:* Six variables comprise the Process API: 2007 scores from the OHI, My Voice, and Rubric, and 2006 to 2007 change/progress scores from the same three instruments. To combine the scores and thus form the composite, we converted each school's score on each variable to a z-score relative to other schools in the data set; the z-scores were then averaged to create the final process index. Given the underlying factors measured by the OHI, My Voice, and Rubric, we can say that the Process API assesses three essential preconditions for learning: organizational health, school membership/belonging, and implementation of exemplary teaching and learning practices. The Process API comprised 15% of the Final API.

2. *Outcome API:* The Outcome API also consisted of six variables: 2007 scores from the ELA/NAEP, Math/NAEP, and SAT and 2007 attendance, graduation, and non-dropout rates. As with the Process API, the outcome scores were combined by converting each school's score on each variable to a z-score and then averaging the z-scores to create the final outcome index. The outcomes conceptually align with the *Learning Criteria* categories of Core Academic Learning and Student Engagement. This component constituted 30% of the Final API.

3. *Progress API:* The Progress API measures the ability of schools to enhance the performance of students from one year to the next in areas of achievement, attendance, graduation rates, and non-dropout rates. As such, the index consisted of five variables: school progress from 2005 to 2007 on the ELA/NAEP, Math/NAEP, school attendance, graduation rates, and non-dropout rates. All progress scores were combined by using z-scores in the same manner described above. This Progress API constituted 55% of the Final API. It received more weight in the final composite to recognize growth and improvement.

Exhibit 4. Summary of API Components

API	Variables
School Process API Measures essential preconditions for learning: organizational health, school membership/belonging, and implementation of exemplary teaching and learning practices. Counts for 15% of the Final API.	2007 OHI scores 2007 My Voice scores 2007 Rubric scores Change in OHI, 2006 to 2007 Change in My Voice, 2006 to 2007 Change in Rubric, 2006 to 2007
Student Outcome API Conceptually align with the *Learning Criteria* categories of Core Academic Learning and Student Engagement. Counts for 30% of the Final API.	2007 NAEP/ELA scores 2007 NAEP/Math scores 2007 SAT scores 2007 Attendance rates 2007 Graduation rates 2007 Non-Dropout rates
Student Progress API Measures the ability of schools to enhance the performance of students from one year to the next in areas of achievement, attendance, graduation rates, and (non) dropout rates. Counts for 55% of the Final API.	Change in NAEP/ELA, 2005 to 2007 Change in NAEP/Math, 2005 to 2007 Change in Attendance rates, 2005 to 2007 Change in Graduation rates, 2005 to 2007 Change in Non-Dropout rates, 2005 to 2007
Final API The sum of the Process API (15% of score), Outcome API (30% of score), and Progress API (55% of score).	

Ranking Process. We ranked all schools in the data set according to the Final API. In addition, we performed separate school rankings for the three components of the final composite, i.e., Process API, Outcome API, and Progress API. Within these four sets of rankings, we identified the top and bottom quintiles, that is, the highest ranking 14 schools and the lowest ranking 14 schools. We then developed the following decision rules to arrive at the final designation of proven schools:

1. A top performer on the Final API must NOT appear in the bottom quintile on any of the API components.
2. A top performer on the Final API must have data on at least 12 of the 17 variables (75%) that comprise the API components (i.e., minimal missing data).[17]

Handling Missing Data

Proper handling of missing data is important to all analyses. But it was particularly critical to the API for without treating missing values we would not have been able to rank a significant number of schools, especially on the Process API. For this reason, we applied a frequently used estimation method: mean substitution. Here, if a school had missing data on any one of the

17 This was determined before, the mean substitution process explained in Exclusions.

z-scores calculated in forming the three API components, the missing value was substituted with the state's mean z-score.

Study Strengths and Limitations

As in most research efforts, this study was characterized by a number of strengths and limitations. The strengths can be summarized as follows:

- *Academic Performance Index*: Those in the business of school reform are acutely aware of the need to create multiple measures of performance to track schools. The API—the cornerstone of this study—provides a fair, valid, and easy to understand way to do just that. While we recognize that school rankings are not without controversy (i.e., not everyone agrees that the pulse of education can be quantified), we also believe that their intended use by SPN staff mitigates that concern. After all, the bottom line for the Successful Practices Network was helping schools move from promising to proven through information exchange about best practice. The API serves that bottom line well.

- *Processes and Outcomes*: This study used both process and outcome measures as a means of tracking schools and assessing their performance. Thus, unlike many studies that focus solely on student outcomes—primarily achievement—we examined the possible school-level correlates of those outcomes. Moreover, we looked beyond student achievement as a measure of school effectiveness. Because of this multi-focus, this study offers a broader picture of school performance than is typically reported in the educational reform literature.

- *Multiple Information Sources*: This study also relied on data from different sources: student surveys, teacher surveys, observation, and state databases. Consequently, we were able to furnish multiple perspectives on the study questions and data indicators (i.e., data triangulation). This served to strengthen the interpretation of the data and study conclusions.

- *Widely Used Data Sources*: The outcome measures used in this study are readily available and widely used. This makes it possible to extend our API methodology to other schools/states. The process variables we used could easily be substituted with process indicators currently collected by the states (e.g., teacher qualifications, student/teacher ratio, etc.).

- *Multi-stage Data Collection Process*: We went to great lengths to gather outcome data for this study. Our multi-phased data collection process involved extracting data from SEA websites, downloading statewide databases, and obtaining data directly from schools. These efforts were guided by a set of data templates, instructional guides, and decision rules. These steps added integrity to our data collection strategy.

- *Equating State Test Data*: We used two procedures to address the challenge of state-by-state differences in the way student achievement is measured and reported. First, we relied on z-scores, which facilitated cross-state comparisons by putting all test scores on a common scale. Second, to deal with differences in the relative difficulty of state tests/standards, we converted the z-scores to an **NAEP** metric based on a methodology used by the NCES. By applying the NAEP conversion, we, in effect, were able to place state test scores and standards on a common scale and thus provide a more credible indicator of state-by-state assessment results.

- *School-Level Focus*: Finally, this study was unique in that we examined process and outcome indicators on a national scale at the school-level. While many research studies have attempted to rank/grade *states* on multiple outcomes or to link school-level processes with student achievement, few have attempted to rank *schools* using indicators beyond achievement. Even fewer have had the opportunity to link outcome indicators with school processes gathered from diverse groups.

There are a number of study limitations that must be kept in mind in interpreting the results.

- *Missing Data*: The use of performance measures is dependent on valid, reliable, comparable, and complete data. In accessing the data for this study, however, we discovered a severe information gap. Across many states, there was extensive missing data, hard to locate information, and inconsistent results. These limitations restricted our ability to collect quality data on many *Learning Criteria* indicators including those considered important to SPN staff and schools. Indicators associated with Stretch Learning and postsecondary placement received particularly short shrift.

- *The Size of the Sample:* The exclusion of Maine schools, the deletion of extreme outliers, and missing data reduced our sample of SPN schools to approximately 60 for most indicators. This number dropped even more for the change/learning progress variables. Though our analyses could accommodate the reduction in sample size, it came at a cost: a loss of

statistical power. Clearly, the use of more data points—even well beyond the 75 schools in SPN—would have improved our analytic model and the study results.

- *Imperfect Measure of Student Achievement:* Though we took steps to "equate" assessment scores across states through z-scores and the NAEP conversion ELA and math progress findings rest on less than perfect information. This needs to be considered when interpreting the results.

- *Lack of Qualitative Data*: One of the "next steps" SPN staff had considered based on this study was conducting follow-up visits to the proven schools. Through these visits, the staff had hoped to learn more about the complex and nuanced factors that constitute superior performance. Clearly, we still believe that qualitative data gathering should be an important next step, not only to verify the API rankings but also to add richness to the findings.

- *Truncated Study Period*: We had originally planned to capture the progress of SPN schools over a four-year period, from the baseline year (2004-05) to 2007-08. However, our difficulty in obtaining the 2007-08 data led us to drop that year from the study. As a consequence, the study has a truncated time frame (i.e., three not four years) that undoubtedly affected the magnitude of observed changes over time.

Despite these limitations, we believe that this study serves as a good starting point for further exploration about superior school performance and what it takes to move from promising to proven.

Results

In this section, we present the study findings. Our reporting is organized around the three research questions:

- What changes in SPN schools have occurred over time?
- Why do some schools do better?
- Can we identify SPN schools that have been more successful than others in contributing to student learning?

What changes in SPN schools have occurred over time?

We addressed the question of *change* by conducting several different "before and after" analyses involving both the outcome and process variables. **Exhibit 5** displays the results of one group of analyses: paired t-tests comparing the difference between mean (average) baseline[1]18 "scores" and mean 2006-07 scores. These results indicate that SPN high schools made statistically significant gains in reading/language arts and mathematics as measured by the "converted to NAEP" metric. In essence, this means that the percentage of students achieving proficiency in reading and math increased substantially across the SPN community from baseline to 2007. No other statistically significant changes were observed. In other words, attendance, graduation, and (non) dropout rates remained relatively stable from baseline to 2007, as did organizational health (OHI Total), school membership/belonging (My Voice Total), and use of exemplary teaching and learning practices (Rubric Total).

118 As noted in the Methodology, the baseline year for the outcome variables was 2004-05, while the baseline year for the process variables was 2005-06.

Exhibit 5. Paired t-Test Results: Change from Baseline to 2006-07

Variable	N	Mean		Change T2 – T1	t	Statistically Significant
		Baseline (T1)	2006-07 (T2)			
ELA/NAEP Metric	65	72.57	74.71	2.14	4.29	Yes**
Math/NAEP Metric	67	69.58	71.74	2.16	2.49	Yes**
Attendance Rates	60	93.23	92.92	-0.31	-.71	No
Graduation Rates	64	85.78	84.78	-1.00	-.96	No
Non-Dropout Rates	58	97.03	96.98	-0.05	-.15	No
OHI Total Score	38	54.50	51.82	-2.68	-1.01	No
My Voice Total Score	44	55.54	56.22	0.68	1.12	No
Rubric Total Score	30	4.25	4.08	-0.17	-1.32	No

**Indicates statistical significance at p<.01

As another look at change, we calculated the percentage of SPN schools that made gains, lost ground, or stayed the same from baseline to 2006-07 on each of the outcome and process variables. **Exhibit 6** reveals that in only three areas did the majority of schools evidence a gain: reading, math, and school membership/belonging (My Voice). For the remaining variables, most schools lost ground over time, although the losses were minor.

Exhibit 6. School Movement from Baseline to 2006-07: Percentage of Schools Making Gains, Losing Ground, or Staying the Same

Variable	N	% Making Gains	% Losing Ground	% Staying the Same
ELA/NAEP	65	**80%**	22%	0%
Math/NAEP	67	**65%**	35%	0%
Attendance Rates	60	30%	57%	13%
Graduation Rates	64	37%	57%	6%
Non-Dropout Rates	58	33%	62%	5%
OHI Total Score	38	43%	56%	1%
My Voice Total Score	44	**59%**	41%	0%
Rubric Total Score	30	43%	49%	8%

Finally, we examined change through a different lens, one focusing on the process instrument subscales (listed in Exhibit 2 of the Methodology chapter). What we found essentially echoed the overall process results: no meaningful change from baseline to 2007. Thus, SPN schools made limited progress in areas such as high expectations, data-driven decisions, accountability, school climate, leadership, innovativeness, problem-solving adequacy, and rigorous curriculum and instruction.

In summary, our key findings on the question of change are as follows:

- The percentage of students achieving proficiency in reading/language arts and mathematics increased significantly across the SPN community over the study period.
- No other statistically significant improvements/changes were observed. Specifically, attendance rates, graduation rates, and dropout rates remained relatively stable from baseline to 2007, as did organizational health, school membership/belonging, and implementation of exemplary teaching and learning practices.

One caveat is in order regarding the observed achievement gains. This study focused on whether or not outcomes and processes in SPN schools changed for the better over the course of the project. It was never the intent to *attribute* improvements to SPN participation. With all the federal, state, and local reforms taking place in our nation's schools, attribution would be nearly impossible unless we had some estimate about how the targeted high schools would have performed had they not been members of SPN.

Why do some schools do better?

To answer this study question, we performed a series of exploratory regression analyses focusing on the relationship between the three process variables—i.e., OHI, My Voice, and Rubric Total Scale Scores—and 2006-07 student outcomes.[2] We supplemented the regression runs with correlational analyses involving the subscales of the OHI, My Voice, and Rubric and each of the outcomes.

By and large, the regression results revealed negligible linkages between the process variables and student outcomes. In fact, of the 54 separate hierarchical analyses (i.e., 9 process variables X 6 outcomes), only 4 produced statistically significant process results; 3 others generated process-outcome relationships that approached statistical significance (see **Exhibit 7**). By far, the most

2 19 As discussed in the Methodology, we regressed 2006-07 outcomes onto the process variables controlling for pretest effects and percent minority. Separate regressions were performed for 2006 process scores, 2007 process scores, and the residual process scores.

potent process predictor was the My Voice scale, which registered a significant association with the ELA/NAEP metric, the Math/NAEP metric, and the non-dropout rate. Thus, SPN schools where students felt a greater sense of school membership/belonging tended to have higher reading and math proficiency percentages and lower dropout rates than schools where students felt less connected and supported. The Rubric findings, though less compelling, are also worth noting. They suggest that schools that made greater use of exemplary practices had higher reading achievement and lower dropout rates than schools that implemented fewer of these practices.

Exhibit 7. Hierarchical Regression Standardized Coefficients

Process Variable	ELA/ NAEP	Math/ NAEP	Attendance Rates	Graduation Rates	Dropout Rates	SAT Scores
2006 OHI						
2007 OHI						
OHI Residual						
2006 My Voice						
2007 My Voice	.12+	.14*				
My Voice Residual	.25**	.26**			.29*	
2006 Rubric	.10+					
2007 Rubric						
Rubric Residual					.34+	

+Approached statistical significance (p<.10)

*Statistically significant at p<.05

**Statistically significant at p<.001

The correlational analyses involving the OHI, My Voice, and Rubric subscales (2007 scores) provided additional insight about the specific school components associated with student outcomes. Specifically, we found that student outcomes were higher in schools that:

- set high expectations and held students and staff accountable for students' continuous improvement,
- implemented an articulated curriculum,
- provided rigorous and relevant instruction,
- provided personalized learning experiences for students, and
- established and maintained a safe, orderly environment.

Similarly, we found higher outcomes in schools where, according to students…

- students felt accepted, valued, welcomed, and safe, and

• students felt respected and cared for by teachers.

Less crucial to high performance were factors such as data-driven decisions; leadership development for administrators, teachers, and parents; parent/community partnerships; and organizational health indicators such as goal focus, communication, resource utilization, morale, innovativeness, and problem-solving adequacy. The correlation coefficients are displayed in **Exhibit 8**.[20]

Exhibit 8. Relationship of School Components to 2006-07 Student Outcomes

School Component	ELA/ NAEP	Math/ NAEP	Attendance Rate	Graduation Rate	Dropout Rate	SAT Scores
Accountability/High Expectations		.40**	.35*		.39*	
Articulated Curriculum		.38*	.27+		.31*	
Rigorous Instruction		.31*	.33*	.40**	.39**	
Personalized Learning			.36*	.34*	.28+	
School Climate	.26+	.30+				
Acceptance	.29*	.41**				
Respect/Caring	.29*	.45**				

+Approached statistical significance ($p<.10$)

*Statistically significant at $p<.05$

**Statistically significant at $p<.001$

In reviewing this Exhibit, two points deserve mention. First, some school components were more critical than others to better performance. The most influential factors were (a) rigorous/relevant instruction, which correlated significantly with four of the six outcomes; and (b) accountability/ high expectations, which correlated significantly with three of the six outcomes. Second, the school components did not exert equal influence across the outcomes. For example, six of the seven components significantly correlated with the Math/NAEP metric, but none correlated with SAT scores.

In summary, our key findings on the question of why some schools do better are as follows:

- The variable that proved to be the most significant in distinguishing higher and lower performing schools was school membership/belonging (i.e., the My Voice scale); SPN schools where students felt more connected and supported tended to have higher reading and math proficiency percentages and lower dropout rates than schools where students felt less

connected and supported.

- Use of exemplary practice also was predictive of better performance; SPN schools that implemented more reform practices had higher reading achievement and lower dropout rates than schools that implemented fewer of these practices.
- The most influential reform practices related to school accountability, articulated curriculum, rigorous/relevant instruction, and personalized learning.

One final point is in order. Much of what we found or did not find is consistent with research that has sought to understand school-level correlates of student performance. Perhaps the most central message is that solid academic performance is shaped by a complex web of interactions relating to the school, the teaching process, students' social and family background, and the community. It would have been remarkable had we found a single school component or even a set of components that provided a clear advantage across all categories of student outcomes. That we were able to identify at least some processes that were predictive of at least some outcomes is significant, especially in light of the study limitations of small sample size and truncated timeframe.

Concluding Remarks

This report set out to document the experiences of SPN schools in their quest to rethink organizational and instructional programs to achieve better outcomes for students. What we have offered is an exploratory look at an ambitious and comprehensive school improvement system grounded in the understanding that the interests, passions, and dreams of each student are keys to learning engagement and future success.

We sought to address three questions through this research effort, all directed toward the linchpin of the SPN approach: assisting high schools to move to a new plane of excellence by providing more rigorous and relevant education for all students. Using a multi-phase data collection and analysis process, we discovered a number of interesting, though not necessarily surprising, answers to our queries. On the positive side, we observed statistically significant differences in student achievement over the study period. Thus, we can confidently state that the percentage of students becoming more proficient in reading/ELA and mathematics markedly improved across the SPN community from baseline to 2007.

We also discovered certain factors that elevated our understanding of why some schools improved more than others. By far, the most critical predictor of outcomes was students' perceptions of school membership and belonging; SPN schools where students felt a greater sense of connection and support tended to have higher reading and math proficiency percentages and lower dropout rates than schools where students felt less connected and supported. The use of exemplary school practice, specifically strategies related to school accountability, articulated curriculum, rigorous instruction, school climate, and personalized learning—also was predictive of better student outcomes. Accordingly, schools that made greater use of these practices had higher reading achievement and lower dropout rates than schools that implemented fewer of the practices. These findings parallel what seminal research on effective schools has indicated: differences in schoolwide strategies and teaching practices coupled with more personalized learning for students can fundamentally influence achievement at the high school level. Indeed, cultivating learning communities that afford more rigorous, relevant, and personalized opportunities has been a prominent part of high school redesign endeavors. It is most certainly a central pillar of SPN.

Finally, on a positive note, we were able to identify a number of schools that demonstrated superior performance. These schools, located in four states, consistently ranked high in most process and outcome variables, even though they faced similar demographic hurdles to other SPN

schools along critical "at-risk" indicators. Given their stellar performance, the top-ranked schools could serve as beacons of success for the broader SPN community.

The positive outcomes from this study, however, must be tempered by other, less sanguine findings. We saw no appreciable movement over time in outcomes such as attendance, graduation, and dropout rates or in the school process dimensions of organizational health, school membership/belonging, and the use of exemplary practice. Moreover, the "before and after" data in Exhibit 5 and the gain percentages in Exhibit 6 suggest that there is much room for improvement in these areas. We believe that the process areas deserve priority attention because, ultimately, what schools do (or do not do) does make a difference. As SPN leaders pursue a future course of action, we encourage them to map more precisely the processes used in the proven schools and devise strategies for enabling these schools to share their success with others.

In closing, school improvement will always be unfinished business for SPN schools. As administrators and teachers in these schools use all their know-how and skills to maintain momentum and continue to grow, there is no doubt that the Successful Practices Network will be an integral part of their journey forward.