



Schools of Promise **Case Study Report**

**Centennial High School
Columbus, Ohio**

Centennial High School Columbus, Ohio

Centennial High School in Columbus, Ohio was selected as a *School of Promise* in Reading and Mathematics for the 2004-2005 academic year. Table 1 summarizes the school and district characteristics for Centennial High School and the Columbus Public School District.

Table 1. School and district characteristics

	Centennial High School, 2004-2005	Columbus Public School District, 2004-2005
Percent Minority	49.5%	69.6%
Percent Poverty	47%	70.9%
Years as a School of Promise (reading and mathematics)	1	
District Typology		Major Urban
Student Enrollment	760	59,754
Attendance—all students	92.9%	93.2%
Attendance —Economically disadvantaged students	92.5%	92.8%
Attendance —African-American students	93.1%	93.3%
Attendance —Hispanic students	92.0%	94.6%
Attendance —Asian/Pacific Islander students	95.0%	94.6%
Student mobility: Students in building less than one year	8.1%	18.4%
Number of teachers	50	3,018
Average teacher salary	\$60,255	\$54,703

Source: Ohio Department of Education

Centennial High School Mission Statement

The Centennial High School community provides an educational program that prepares our diverse student population to live and work in the 21st century. We are committed to meeting the needs of all students by empowering them to be productive, responsible citizens with a capacity for lifelong learning. To accomplish this mission, we set high academic standards and provide a caring atmosphere conducive to success.

School History and Background

Centennial High School was built in the 1970s. The school has not been renovated since its construction, so administrators and teachers “make do” with fairly cramped quarters, sharing classrooms and only one conference room for the entire school. The vast majority of classes are

held on the school's first floor. Upstairs, the school serves a mentally handicapped (MH) population.

Upon entering the school, visitors pass through a security station and receive a bar-coded ID badge. Each student receives a bar-coded ID and must "swipe" it upon arrival. The new ID system immediately records attendance (saving a great deal of time and reams of paper) and is also used for lunch, the school library, and even COTA bus access.

Once past security, visitors walk into a large open cafeteria. The main office sits directly behind a sea of round tables where students gather at the school's opening and again at lunch. The principal's office has direct access to the cafeteria, and throughout the day it is used for small meetings between students, teachers, and administrators.

At the heart of Centennial's educational philosophy is a belief that all their students are college-bound and it's their job to prepare the students for the academic rigors of the next educational level. According to the school, Centennial's curriculum focuses on "advanced technology and cooperative learning." Students and parents are well aware of Centennial's college preparatory reputation, the wide array of AP courses they can take, as well as the school's strong partnership with Columbus State Community College, which permits students to take online courses for college credit during the school day.

Centennial is also known for its diverse student population, which represents over 30 countries. Like other schools in the district, Centennial offers English as a Second Language (ESL) courses for its many foreign students.

According to Columbus Public School policy, Centennial (like other CPS high schools) is an "open enrollment" school. If a student's school of assignment is identified as being "In School Improvement" based on the percentage of children passing the state achievement or proficiency tests, parents and guardians may apply for the student to transfer to a school not designated as being "In School Improvement" through the district's Parent Choice lottery process. The process for starting school in September typically begins in early February. Parents are encouraged by the district to investigate their choices by visiting schools, reading school profiles (links are provided on the CPS School Choice/Lottery home page), or by visiting the district's school fair before filing an application.¹

Because students may come from anywhere in the city, some students must travel long distances to attend Centennial. Since the school opens before 7:30 a.m. and students begin arriving on buses at 7 a.m., this can mean a very early morning for students traveling from across town.

In 2005, Centennial was ranked as one of the top high schools in the country by *Newsweek* magazine. Public schools were ranked according to a ratio of the number of Advanced Placement or International Baccalaureate tests taken by all students at a school in 2004 divided by the number of graduating seniors. Centennial was ranked 1,049 out of 27,486 public high schools, placing in the top 4 percent.²

¹ More information can be found at the Columbus Public Schools website, [http://www.columbus.k12.oh.us/applications/FAQ.nsf/\(deadline\)?openview#8](http://www.columbus.k12.oh.us/applications/FAQ.nsf/(deadline)?openview#8).

² Kantrowitz, B. (2005, May 16). The 100 Best High Schools in America. *Newsweek*.

Table 2. School and district performance on state indicators

State Indicators 2004-05 (10th Grade Ohio Graduation Test) State requirement is 75%		
Reading	94.3%	87.4%
Writing	85.8%	67.7%
Mathematics	85.2%	67.5%
Science	76.1%	45.8%
Social Studies	80.7%	63.8%
Attendance (<i>State requirement is 93%</i>)	92.9%	93.2%
Graduation Rate (<i>State requirement is 90%</i>)	89.9%	60.6%
Number and percent of state indicators met	5 out of 7	3 out of 23
Rating	Effective	Academic Watch

Source: Ohio Department of Education.

Teacher Characteristics

Centennial has 50 teachers. The mathematics, English, and science departments have six teachers each, and the school has two English as a Second Language teachers. The remaining 30 faculty specialize in social studies, foreign languages, art, PE, business, music, home economics, and special education. Also included in this count are the school’s librarian and counselor.

According to data provided by teachers on the teacher survey, 60 percent of teachers at Centennial are female, and 87 percent are Caucasian. Teachers at Centennial have a wealth of experience. More than three-quarters of teachers (77 percent) have master’s degrees. Teachers average 20 years experience overall, but average 10 years of experience at Centennial. Twenty-three percent are certified by the National Board for Professional Teaching Standards, and 14 percent have advanced teaching certificates. Almost all teachers, 97 percent, are Highly Qualified.

Schools of Promise Case Study Methodology

On Feb. 1, 2006, a four-person research team conducted a one-day site visit to Centennial High School. Activities conducted during the day were as follows:

Classroom observations

Seven classes from Centennial high school were randomly selected for observation, each for 30 minutes. Three were mathematics classes (ninth-grade geometry, mixed-grade algebra II, and eleventh/twelfth- grade AP calculus), and four were English classes: one ninth-grade English class, one tenth-grade English grade class and a multi-grade “communication strategies”

English as a Second Language (ESL) class, and one ninth- and tenth-grade (combined) ESL class.

Classrooms were randomly selected by SRG from a list of teachers and class times provided by school administrators using a random number generator. After sample selection, SRG consulted with school administrators and teachers to ensure that the observation period was valid, the selected teacher would be teaching at that time, and that observations would not interfere with examinations, quizzes, or other planned activities that day. In the event of a conflict, a different class period was selected by SRG. Each observation lasted 30 minutes. Two trained researchers conducted observations simultaneously, and their ratings were compared to determine inter-rater reliability for observation protocols. Inter-rater reliability across the six classrooms was determined to be 92 percent.

Observers used a subset of measures from the Classroom Assessment Scoring System (CLASS—Pianta, LaParo, and Hamre, 2005) to record qualitative observations and make quantitative ratings on climate (positive and negative), teacher sensitivity, behavior management, productivity, and concept development. Following each observation, teachers were asked via a one-page questionnaire about the particular class that was observed to determine if anything that happened during the observation period was unusual or remarkable; this information was taken into consideration during data analysis.

Teacher interviews

Individual interviews were conducted with 12 teachers (eight English teachers and four mathematics teachers). Interviews lasted 15-45 minutes, and followed a pre-determined discussion guide. Topics discussed included curriculum and instruction; professional development; school climate, policy, and procedures; and characteristics of effective teachers.

Administrator interviews

An hour-long interview was conducted with school principal Mrs. Fran Hershey, and assistant principals Mr. Earley Parham (11th and 12th grade) and Mrs. Charlotte Carter (ninth and 10th grades). Interview topics included general school history and background, curriculum and instruction, characteristics of effective teachers, professional development, partnerships; school climate, policies, and procedures; and teacher recruitment and hiring.

Teacher survey

A teacher survey was distributed to all classroom teachers (n= 50) approximately one week before the site visit. The survey was self-administered and asked questions about the teachers' background and training, professional development activities, school climate and culture, as well as perceived characteristics of effective teachers. A total of 35 surveys were received, representing a response rate of 70 percent.

Student focus groups

To gather feedback from students, two student focus groups were conducted. Students were recruited by school administrators from classrooms observed during the site visit. Topics discussed included school background, perceived teacher support, learning opportunities, and what students like best about their school and teachers. One group was conducted in the morning and another in the afternoon. Both groups were mixed with students in grades nine through twelve. There were six students in each group, and each group lasted approximately 20-25 minutes.

Parent interviews

After the site visit, SRG conducted 20 telephone interviews of parents. Interviewees were selected from lists provided by school administrators. Each interview followed a prepared survey instrument and was conducted by phone at a time convenient for the participants. Topics included curriculum and instruction, teacher relationships, and opportunities for student achievement. Interviews lasted 11-17 minutes.

Results

This report is organized using the “Five Lessons Learned” identified in earlier Schools of Promise research. These lessons emphasize the importance of providing rigorous instruction aligned with state standards, instituting strong leadership, designing instruction to ensure student success, engaging parents and the community to support student success, and establishing a school culture that values individual students. Centennial High School shows evidence of all these components.

In addition to investigating ODE’s “Five Lessons Learned from Successful Schools” and how Centennial High School demonstrates these characteristics, a particular focus of the current research is on teacher quality and the role of the teacher in high-performing schools. Specifically, the present case study inquired how teachers, administrators, students, and parents define teacher quality. What teacher characteristics are perceived as most important by each of these stakeholder groups? With these questions in mind, the present research also examines issues related to teacher quality in these schools and key stakeholders’ beliefs and expectations regarding teacher quality.

Several characteristics of effective teachers repeatedly emerge. Centennial’s principal, administrators, students, parents and teachers consider effective teachers to share some common characteristics:

- Teachers must possess a high degree of knowledge in their subject areas.
- Teachers must have a positive attitude toward teaching.
- Teachers should have a positive attitude towards students and enjoy working with adolescents and young adults.
- Teachers should create a climate of high expectations for student success and reinforce academic rigor in the classroom.
- Teachers must demonstrate effective classroom management skills, in terms of discipline and organization.
- Teachers must be sensitive to student needs and be flexible in working with students from different backgrounds and different learning styles.
- Teachers should align instruction to the state content standards, but encourage independent thinking and problem solving, not just rote memorization.
- Teachers’ contributions to a standards-based curriculum enhance their understanding and ability to align instruction to the standards.

These themes are recurrent throughout the following Five Lessons.

1. The school delivers rigorous instruction aligned to the standards.

District curriculum provides “deep alignment”

Centennial’s curriculum is the same curriculum that Columbus Public Schools (CPS) uses district-wide. It’s also a key component of Centennial’s success, serving as a comprehensive guide to what concepts should be covered and when. The guides provide teachers with all the content which, when fully implemented, will lead to “deep alignment” of the CPS curriculum. According to the CPS district, the term “deep alignment” means that students’ lessons include activities, experiences, and materials that match or exceed the content, context, and cognitive levels of the state tests.

Curriculum guides are prepared by the teachers in the CPS district. Guides are designed to be self-sustaining, meaning if a teacher had a curriculum guide and nothing else, he or she would have all the information needed to teach for the academic year. Guides contain the Grade Level Indicators from the Ohio academic content standards, including content and context as tested at each grade level, the previous and next levels for learning, aligned teaching resources and texts in use, and teaching strategies for the classroom. The curriculum includes learning goals, mechanisms to evaluate each learning goal, materials and resources required to teach each learning goal, and strategies for implementation.

Centennial teachers contribute to the district curriculum

Notably, many of Centennial’s experienced and highly-educated teachers have contributed directly to the curriculum. All of Centennial’s current mathematics teachers, several English teachers, and a number of science teachers have all contributed to their discipline’s curriculum. Teachers believe the experience has helped them better understand the standards themselves.

It is considered unusual to have so many teachers who have contributed to the district guides teaching at one school. As one mathematics teacher said, “I don’t think there’s another school [in the district] where the whole department was part of that process.” As a result, teachers at Centennial have a particularly good understanding of the standards and how to use the district curriculum effectively. The teacher continued, “We understand the curriculum. We sat down and studied the state standards inside and out to write it.”

When developing curriculum guides, teachers carefully consider the resources available to everyone in the district. For example, the English guides, activities, questions, and other materials are based on the district’s current textbook series. “Some of the choices might not have been what everybody preferred, but for the sake of the curriculum guide, accessibility was important,” a teacher explained—not all teachers have access to the same supplemental texts. Thus, the curriculum can be implemented in a standardized fashion in every school in the district. Some teachers admit that sometimes the curriculum guides limit their creativity, but they acknowledge their students are very well prepared for standardized tests.

Still, teachers do have the ability to supplement lessons. For example, English teachers may incorporate short stories, or mathematics teachers may give students extra problems or create opportunities to use technology (like graphing calculators). New teachers can use the guides as they learn to follow state standards but do not have to follow them to the letter. According to an English teacher who helped develop the district’s English curriculum, “We don’t look at our curriculum guides as the ‘be all end all’ but as a starting point. We need the opportunity for individual choice.”

Standards are clearly communicated to students and parents

With a thorough understanding of the district curriculum and the state standards, teachers at Centennial clearly communicate the standards to students. The standards are visible in the school's classrooms so students and visitors can refer to the curriculum guide and see how the day's lesson relates to the curriculum and standards. Some teachers write the curriculum standards for the day's lesson on white boards, which they carry with them from classroom to classroom during the day.

Teachers agreed the school administration is effective in conveying state standards and other important policies to them. On the teacher survey, 79 percent agreed school leadership effectively communicates state, local, and national educational policies and initiatives.

The administration also makes sure that parents are aware of the content standards. They send information about standards home to parents and distribute information at parent nights at the school. More than half of parents interviewed said that they are familiar with Ohio's academic content standards.

Vertical and horizontal alignment of curriculum

To ensure the curriculum is implemented effectively and students are prepared for the next level, Centennial's staff is aligned vertically and horizontally within departments. For example, the entire mathematics department collaborates regularly during departmental meetings, common planning periods, and scheduled collaboration time (as part of the Urban Systemic Project, or USP—see page 14). Perhaps more importantly they meet informally in between class periods, after school, during lunch—"We always are communicating and helping each other," commented a mathematics teacher." A similar process occurs in the English department although with less of a formal structure.

Teachers at Centennial take curriculum alignment to the next level by creating consistent expectations for performance. According to teachers it's not only important to align the material they teach; students have to understand teachers have high expectations at every grade level. One teacher described how she "sets the tone" for students as they move to the next grade level:

We treat each grade level as the 'farm team' for the next level, so you have to understand the vertical alignment....If there's a streamlining or if there's an alignment of expectations from down below, then there's not quite a culture shock [when they move to the next grade level].

Centennial's staff is so committed to alignment that they work with teachers at feeder schools in the CPS district on their curriculum guides. At the time of the site visit, teachers were preparing for district professional development regarding alignment between middle and high schools to further streamline alignment in the district and increase student achievement.

High expectations for student achievement and focus on college preparation

High academic achievement and a focus on college success is a fundamental part of the culture and tradition at Centennial. Teachers and administrators believe it is important explain the high expectations and hold students accountable for their behaviors such as turning in homework on time and demonstrating respect to teachers and peers. The entire school has been infused with this belief system.

As a result of the teacher and administrative leadership in this area, peer-to-peer pressure favors academic achievement. One teacher explained the impact of peer modeling this way:

The students see other people around them excelling and being rewarded for their excellence and they think, 'Hmmm, I better kick it up' because of that peer pressure, because of the expectations of the staff, because in class they're expected to answer questions thoughtfully with some depth of knowledge rather than just yes or no things.

Teachers' goals for students are set much higher than just passing the OGT. Centennial focuses on preparing students for college and offers Advanced Placement courses in most subjects including biology, English, calculus, and two foreign languages (French and Spanish). The array of AP courses was something parents interviewed particularly appreciated about Centennial. Principal Hershey commented that she feels it's part of her job to see students succeed in college and in life, not just in high school.

The tone of the school's high expectations is set by Centennial's ninth-grade teachers. The teachers work hard to help their students adjust to the rigorous focus at Centennial overcome the "culture shock" many experience. The process takes time and patience. Teachers expect discipline, timeliness, and focus from day one, but help students acclimate to the new tone. One teacher described her approach:

I don't modify my vocabulary. We talk to them as if they are partners with me in what we're doing. I don't talk down to them. I say, 'This is what we're going to do.' And at first some of them are a little off put because I use a professional vocabulary. And at first you'll get, 'Why do you use big words? Why are you talking like this? We're not in college.' But they like it and then they'll start using it back. So you establish the tone immediately that this is academic. We have academic expectations. The expectation is that all of you have the ability to get in college.

The emphasis on college preparation is reinforced as students approach critical points in their high school experience and decision making process. Teachers try to impress upon the students how their choices will affect future opportunities. They frequently remind students that performance in ninth and tenth grades has implications for their GPA in the long term and their likelihood of acceptance when it comes time to apply to college. As an English teacher said, "You should have the choice [where to go to college] when you're a senior, not that your grades made the choice for you."

The result of Centennial's approach has been rates of college application and acceptance that are very high. According to administrators, 60 percent of seniors take the SAT or ACT; 77 percent of graduates enter college. In 2005, Centennial graduates received \$2.8 million in scholarships.

Still, Centennial faces challenges being part of a large urban district. The principal believes the school and its students' accomplishments are often overlooked. As she said:

Some people hate to admit that Columbus Public Schools has wonderful things happening. They want to see the negatives, they don't want to see the positives. I have a National Merit scholar that's already been admitted to MIT, she wants to be an engineer... we're very proud that our kids are in every school possible that they want to go to.

Consistent with the school's high expectations for students, the school conducted a pilot program with Columbus State Community College (CCSC) to enable advanced students to gain college credit through distance learning programs. A select group of AP students participated in this pilot program and could earn five credit hours in English and government as well as AP credit in these subjects. Principal Hershey said that another school in the Columbus District (the Columbus Africentric School) has established a strong partnership with CCSC and it seemed like a good opportunity for Centennial as well. She approached CCSC to explore the possibility of establishing an Associate's degree program, and the distance learning opportunity gave both parties a chance to explore the viability of the relationship. The school is still "working out the kinks" in such a program, and although there are no plans to continue the pilot program with CCSC in the 2006-2007 academic year, the school is still actively pursuing the possibility of a college partnership.

In focus groups, several students mentioned their involvement with the college credit program and liked the opportunity to be able to graduate from high school with enough college credits to earn an associate's degree. While most students liked the opportunity to get a head start on college coursework, some felt that if too much time is spent on earning college credit it can create additional pressure. In focus groups, one student said, "[The school is] trying to push more in a smaller amount of time. They're trying to push for graduating with an associate's degree. There has to be high school, you know?"

Inclusion of ESL and special needs students

The school's high standards are maintained for all students including those who receive special education or ESL services. These students are included in general education classes and provided with the same content received by other students, although teachers make accommodations to meet individual needs. One of the school's five special education teachers noted that the teachers and student body at Centennial welcomes the additional diversity among all kinds of students and try to find ways to include special needs and mentally handicapped students in school activities.

District-wide, Columbus Public Schools have established ESL departments to accommodate the ever-increasing diversity in the community. Teachers feel it is a challenge to help ESL students adjust, particularly as they are held to the same standards as all other non-ESL students. As one ESL teacher said, "These kids don't know what 'OGT' [Ohio Graduation Test] stands for maybe and they're going to have to take it this year." A communications skills class serves as a link between ESL and regular English classes and offers additional support to students who are still building language skills but have moved beyond the basic ESL courses.

In summary, Centennial focuses on student academic achievement as the highest priority of the school and embraces a culture of academic success for all students. School staff adheres to state standards and follow a district curriculum to which many of Centennial's teachers have contributed. The school keeps focused on the attainment of rigorous standards and teachers and administrators expect high levels of student achievement in high school and beyond.

2. The school provides leadership that results in continuous improvement of instruction.

Centennial's principal, Fran Hershey, describes her style of leadership as collaborative. She values others' opinions and regularly asks the teachers to contribute to decisions. Hershey works to keep everyone informed about school policies and possible changes. She considers her custodial staff and kitchen staff as important as teachers. "If things are done around here, everyone needs to know about it," she said.

Principal Hershey keeps in close touch with department chairs and committees, and meets with the staff at least twice a month to provide information on news, updates, or changes. At these meetings, teachers can express concerns or discuss ways to address problems with students. The principal views the sessions as a way to bridge the gap between the teachers and administration.

Teachers agree that the principal solicits feedback, but she is seen as the school's primary decision maker. As one teacher said, "She's the boss." On the teacher survey, there was a high degree of consensus that the principal communicates expectations clearly and is supportive of teachers. Eighty-eight percent of teachers agreed faculty and staff have a shared vision, and 82 percent agreed the principal communicates her expectations to students, parents, faculty, and staff. In interviews, teachers agreed they are involved in an ongoing basis in policy decisions regarding discipline, the student handbook, and others.

The school improvement plan is created and driven by a committee of teachers under the leadership of the principal. The committee consists of one parent representative, three teachers, and the principal. The group meets monthly and they update the plan quarterly. According to the principal, school improvement is driven by data, and feedback to individual teachers is continuous. Principal Hershey said:

We use the data that the State of Ohio and the school district provide to us and we give feedback and get input from our teachers and team leaders based on their trends and patterns that we're seeing so that we can identify where we're strong and what we need to adjust. Also, when we're working with staff on discipline matters we give feedback and recommendations regarding everything from classroom management to communications with students and parents and us.

Teachers' responses on the survey indicated a positive, supportive climate. Seventy-one percent of teachers agreed, "My principal consistently supports me when I need it," and the same percentage agreed there is an atmosphere of trust and mutual respect at Centennial.

District challenges

One challenge for the school seems to be dealing with is the large impact that district level decisions on the teaching staff and school operations. As one teacher said, "Most of the decision making comes from the district downtown who relays it up to us, and we are told through our administration."

One of the greatest recent concerns was a proposal to shorten the school day by one hour beginning in fall 2006, which was approved in March 2006.³ In a letter to the editor published on February 25, 2006 in the *Columbus Dispatch*, a Centennial senior summarized the issue:

Fewer class periods mean students would be able to take fewer classes. With 22 required credits to graduate, the proposed schedule affords less time for elective classes, particularly art, music and foreign languages....To students hoping to gain admission to selective colleges, these elective classes are essential, and they benefit all students, giving them ways to express themselves outside of the typical academic classroom.

³ Bush (2006). Shorter day OK'd at noisy meeting. *The Columbus Dispatch*, March 8, 2006.

In focus groups, a number of student participants commented about the difficulties a shortened school day would present for students next year. Students discussed how they would be limited in their choices and how they wished they had more room in their schedules for electives.

Because teachers aren't involved in such matters, they don't feel a high level of contribution to decisions about school policy. For example, although 62 percent of teachers agreed that school leadership works to address teacher concerns, just 44 percent agreed that teachers are centrally involved in decision making. So, even though departments are given a fair amount of autonomy at Centennial, teachers struggle with district-level decision making.

Highly skilled staff

Almost all teachers who responded to the survey (94 percent) agreed that teachers are held to high professional standards for delivering instruction. Highly skilled staff members who are knowledgeable, collaborative, and dedicated play significant roles at Centennial. As the principal said,

I would put this staff against any staff in the state, especially my mathematics and science departments. I have eight national board certified teachers—most are in the mathematics department. Many staff members work together to obtain their national boards.

The teaching staff at Centennial is indeed highly accomplished. Over 75 percent of teachers have master's degrees, almost all teachers are highly qualified teachers, and 14 percent have advanced teaching certificates. When asked to identify the most important characteristics of an effective teacher, knowledge in one's subject area was the top characteristic selected by Centennial teachers, selected by 42 percent of teachers.

Professional development

Many professional development opportunities are provided by the district. Every nine weeks, the district offers a wide range of professional development opportunities giving teachers options in choosing speakers and workshops, and they have the freedom to choose what best serves their needs.⁴ "Basically you choose what you feel the best will suit you at that time," said a mathematics teacher. "What do you think you need to work on the most? Where do you think you need to improve?"

On the teacher survey, teachers were asked about the primary focus of their professional development activities in the previous year and what other (secondary) areas also applied to them. Differentiated instruction to meet the learning needs of diverse groups of students was the primary focus of teachers' professional development at Centennial. Over 60 percent of teachers participated in professional development that addressed differentiated instruction with almost a quarter of teachers identifying that as a primary focus.

Over 40 percent of Centennial's teachers participated in professional development related to Ohio's academic content standards, with 21 percent naming that as a primary focus. Also, consistent with teachers' comments about the importance of content area knowledge, about a third of teachers participated in professional development related to their content area, with 24 percent naming that as a primary focus. A summary is presented in Table 3.

⁴ For more information on CPS' curriculum and staff development opportunities, see <http://www.columbus.k12.oh.us/staffdev/index.html>

Table 3. Focus of teachers' professional development

Thinking about all your professional development activities last year, what was the focus of the activities you selected? ⁵	Which areas apply to you?	Which <u>one</u> area was your primary focus?
Instructional strategies to meet the learning needs of diverse groups of students with different learning styles	60.6%	24.2%
In depth study of the academic content of the subject(s) you teach	33.3%	24.2%
Understanding and applying Ohio content standards to student instruction	42.4%	21.2%
Collaboration for improving instruction	42.4%	12.1%
Strategies for creating and maintaining safe and orderly classrooms and schools	24.2%	3.0%
Strategies for engaging parents and families	18.2%	3.0%
Using assessments to gauge student mastery of Ohio content standards	27.3%	--
Using research results for decision making	15.2%	--
Strategies for engaging stakeholders as active members of the school communities	6.1%	--

Because teachers say the best way to learn something better is to teach it, Centennial teachers take an active role in creating district professional development activities, often serving as presenters to their peers in the school district.

Teacher Leaders

The term "teacher leader" has multiple definitions in the research literature, but "teacher leadership" generally means a process by which teachers, individually or collectively, influence their colleagues, principal, and other members of the school community to improve teaching and learning practices with the aim of increased student learning and achievement. Such leadership often includes individual development, collaboration and team development, and organizational development.⁶

Researchers York-Barr and Duke (2004) identify a number of "dimensions of practice" that describe teacher leader activities. Several of these practices described teachers at Centennial well, including participation in administration; school or district curriculum preparation and development; professional development of colleagues; contributions to the profession of teaching; and involvement with parents and community.

Teachers are invited by the principal to contribute to decision making at the school. Principal Hershey says her philosophy is to "empower" staff by encouraging them take ownership of school issues. As a result, departments have a high degree of autonomy and the responsibility for making sure information is disseminated to teachers. Counselors give department chairs

⁵ These response options were adapted from the Maryland Survey of Teacher Participation in High Quality Professional Development, 2003-04, Maryland State Department of Education

⁶ York-Barr, J. & Duke, K (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research*, 74, 255-316.

information about students that need extra help. The staff works to solve problems involving the students.

National teacher leadership

Teacher leadership at Centennial is also evident in the school's participation in the Urban Systemic Project (USP). Teacher leaders play a critical role in the national initiative. The Urban Systemic Program is supported by a \$3 million grant from the National Science Foundation (NSF). According to NSF, the program's goals include increasing student achievement in mathematics, science, and technology; making standards-based, inquiry-centered instruction a reality; increasing the competency and diversity of the teaching staff and promoting collaboration with local colleges and universities to improve teacher education.

Eight CPS high schools and eight middle schools were selected as "standard bearers" for the implementation of standards-based, inquiry-centered science and mathematics instruction to enhance student achievement.⁷ Teachers in the USP Cohort Schools participate in special training opportunities throughout the year (in addition to the district's requirements). Some training is provided by the Science-Mathematics Network on topics such as writing in science and mathematics classes as well as inquiry-based lessons in science. Special summer training for participating teachers is offered in standards-based teaching and learning, data analysis, and study group facilitation.

In Columbus, teacher leaders in mathematics and science facilitate the implementation of standards-based, inquiry-centered instruction.⁸ Teachers participating in the USP set goals and are monitored throughout the year by a lead teacher. Goals vary each year, and one example of a goal for the 2006-2007 year is to increase student performance on the science portion of the OGT. Principal Hershey explained that this will involve teachers monitoring students at all levels and exploring ways to differentiate instruction, so that students struggling with a concept have additional opportunities to learn the material—but more advanced students don't become bored. She also sent her science teachers on a site visit to another school in the district that has strong student performance on the OGT science test to observe and discuss strategies with other teachers.

Each school participating in the USP has a "study group" of teachers and one lead teacher. The study groups use student performance data to determine building needs and design a plan to address those needs. The lead teacher uses feedback and observations about what makes students successful in subjects like mathematics.

Mathematics teachers participating in the USP raved about the initiative and the high-quality professional development they receive, not to mention the additional opportunities it creates for collaboration. Teachers say they benefit from being observed by the lead teacher and wish they had even more opportunities to observe one another.

Centennial teachers also attend and make presentations at national conferences. Members of the mathematics department regularly attend the National Council of Teachers of Mathematics and Teachers Teaching with Technology (T³) conferences. Mathematics teachers say one of the advantages of participating is learning about the current uses of technology in the classroom, for example, using graphing calculators. One mathematics teacher said the fact that teachers were presenters made the conference particularly valuable, and in fact a Centennial teacher was scheduled to present at the T³ conference in 2006. In addition, a mathematics teacher who

⁷ Columbus Public Schools, Urban Systemic Project website, www.columbus.k12.oh.us/usp.

⁸ *Urban Systemic Program: Report to the Academic Achievement Committee*, (November 2004). Columbus Public Schools. Downloaded from the Internet, <http://www.columbus.k12.oh.us/usp/AA%20report.pdf>, March 2006

recently retired from Centennial now works for Texas Instruments, training teachers on using graphing calculators and incorporating technology into the classroom.

Although teachers at Centennial participate in traditional forms of professional development provided by the school and district, they serve as leaders in the school, in the district, and nationally in their profession, and a significant amount of teachers' professional development is facilitated through teacher leadership.

Recommendations for new teacher preparation

Teachers were asked about what recommendations they had for training and preparing future teachers to be effective in schools with high proportions of at-risk students. First, teachers were asked, "How well-prepared were you to teach this population of students when you first started working at this school?" About half (51 percent) indicated they felt "very well prepared." Another 29 percent responded that they felt "prepared." Teachers who said they felt prepared attributed their preparation to hands-on experience, such as student teaching or a previous assignment in an urban or inner city school setting.

Next, teachers were asked about their recommendations for training and preparing future teachers to be effective. The dominant theme was again gaining as much experience in a variety of schools and working with as many types of students as possible. Teachers also emphasized the importance of learning from other teachers, as one wrote, "Teachers need time to collaborate with other teachers, as well as parents." Another teacher said:

I know we have many outstanding teachers at Centennial and I personally would appreciate more time to discuss their particular expertise and successes at times other than at teachers' meetings or encounters in the lounge.

Increasing demands, less time for teachers

A challenge teachers often mentioned was a lack of time for preparation, planning, and collaboration. On the teacher survey, many cited heavy work hours and required professional development activities as stressful. As one teacher wrote:

Time is a major issue in education and teachers have more and more responsibilities that do not focus on students — they are expected to do with what they have. Administrators need to support teachers both in learning process and in the discipline process.

Classroom management and organization is a potential drain on teachers' already limited time, and teachers commented that this is not something for which novice teachers are well-prepared. One mathematics teacher recalled being surprised over the required amount of paperwork and administrative tasks when she first started teaching:

My first two years were a mess. I felt like I didn't have time to really sit down and read the mathematics section and figure out what lessons to do. Now I'm used to the paper work load so it's not too bad. But that's a big surprise: How much of teaching is not really teaching.

3. The school designs instruction to ensure every student's success.

Centennial has established high expectations for all students and provides the support necessary to help individual students achieve these expectations. The school's focus is on the academic success of every student, and teachers aim to exceed the state standards.

Informed instruction: A deliberate process for identifying student needs

To improve student performance, Centennial's administrators believe it is important to be "deliberate" in identifying pupils' needs. To them this means they need to carefully monitor student performance data on grade level indicators and identify students who have not mastered the prerequisite skills. According to administrators, schools must know where the students fail to meet grade level indicators so they can carefully select high impact improvement activities. As the assistant principal elaborated:

There may even be dollars behind specialized kinds of activities and programs that you can offer at your school building. It could be recreational in nature, it could be academic, it could be social. But is it what your kids need? Or is it taking staff, time, and attention away from meeting the needs of your students?

Administrators say that it can be a challenge to meet the needs of low performing students, students who are "on track," and advanced students simultaneously. Because most schools face a situation defined by limited resources, they must be able to measure their shortcomings and make decisions that target their resources to programs that produce real results.

Understanding Student Learning Styles

At Centennial, there is an emphasis on tailoring instruction to the learning style of individual students. Teachers say to be effective they must know their content area so well that they are able to be flexible in their approach to motivate all students. As the principal said:

Not all kids are going to sit there and learn because you want them to learn. You have to let them enjoy what they're doing, you have to coax them into learning and I think that's what good teachers do.

When necessary, teachers modify their instructions to accommodate student needs. They try to be flexible in working with students while teaching the required curriculum. For example, one teacher uses a less difficult version of Shakespeare's *Romeo and Juliet* for students who struggle with reading. The approach helps the students, who may otherwise be embarrassed about their poor reading skills, increase their comfort level in class. An English teacher said,

I've got several kids that can't write sentences. I'll get them one-on-one to feel more comfortable, give them individual feedback, while the kids who are able to work in groups and help each other out a little bit more will go that direction.

In interviews, many parents commented on teachers' appreciation and understanding of student learning styles. As one parent put it, effective teachers understand that students "cannot be grouped in the same mold." As a result, the teachers at Centennial teach to the individual needs of the student, not the whole class. This was noted by teachers, parents, and students.

Teachers use a variety of instructional techniques

Many teachers said in interviews that they work to develop student skills and not just convey knowledge. Class projects encourage independent thinking, problem solving, and concept development. In interviews, teachers described activities that allow students to derive answers through active learning processes. Teachers say these kinds of activities are more effective because students are more engaged in the learning process. “I don’t have to say, ‘this is the way it is.’ They see it themselves,” a mathematics teacher explained. Interactive assignments allow students to find their own strengths.

Teachers commented that they find it most effective to vary instructional techniques. A mathematics teacher described how she frequently varies activities, incorporating a mix of lecture, individual activities, group work, and use of technology into her instruction. She explained:

A lot of researchers say, ‘Lecturing is bad,’ which I don’t think it is. You need both, you need to lecture. And some teachers say, ‘hands on, hands on, and hands on only.’ So I like to do both. [Students] need to do the hands on and they need the traditional lecture also.

Students in focus groups commented positively on teachers’ use of various instructional techniques. “A certain level of strictness is good, just keeping people on task, but things I like about some of my teachers is how they won’t just do the same thing every day and vary it,” said one student. “I like discussions and in English we’ll have discussions.”

The use of technology such as graphing calculators and motion detectors is considered valuable in supporting concept development, particularly in the mathematics and science departments. Teachers encourage use of technology if it helps students independently solve problems. Parents appreciate the school’s emphasis on technology as well. In interviews, one parent approvingly commented that teachers have made laptops available for the AP Calculus students.

Emphasis on concept development

Teachers also discussed the importance of the scaffolding process in concept development, particularly with younger students. They noted that students can easily become frustrated if they don’t immediately understand new material. Teachers use scaffolding to build confidence and knowledge at the same time. For example, an English teacher described how she teaches the *Great Gatsby* by beginning with a small excerpt. “The class begins by discussing the work’s word choices and gradually moves into the book’s complex tone,” she said. This approach lets the students analyze and evaluate the information on their own, which creates more ownership on the part of the students in mastering the material. Another English teacher involves students in poetry (a subject she admits most do not enjoy initially) by letting them pick a poem for an individual project. Because the project isn’t solely teacher-led, she feels students are more likely to enjoy the experience and the material.

Teachers believe such techniques are important because the skills students develop through more active learning processes are not always reflected in the OGT or standardized testing. An English teacher observed, “That’s the thing that the tests do not assess – that kind of synthesizing, culminating, seeing the connections between the literature, the themes, the modern world, their own life.”

Because the school has a large proportion of economically disadvantaged students, activities that promote higher-order thinking are seen as particularly important. Principal Hershey explained:

One of the things that research has shown is that in low socio-economic neighborhoods the education that is delivered to children is very low level. Higher order thinking is just not even promoted. The staff almost gets out of the habit of doing it.

At Centennial, activities to promote higher-order thinking are deeply ingrained in the culture. In classroom observations, concept development was clearly evident. For example, in English classes, the students engaged in analysis and reasoning. One class discussed the symbolism in a novel they were reading. In another class, students wrote a persuasive essay on a controversial topic. In a mathematics class, the students were told they could receive extra credit if they figured out the physics concepts behind one of the problems they had done during class. The students in this class also were learning how to use graphing calculators to solve parametric equations. The teacher connected her calculator to a monitor in the classroom so the students could see what she was doing.

Consistent with teachers' comments, students said they learn more effectively when the lesson is more than rote learning and memorization. One student put it this way:

[Teachers] here focus more on what you learn and what you know, other than like 'we learn this, this and this on that date.' It's very important to establish a connection between yourself and what you're learning. Like, 'this is actually going to help you, you're actually learning from this.'

Finally, parents recognize and appreciate the teachers' creativity and use of student-centered instructional techniques. One parent expressed appreciation for teachers who point out different ways to approach problems and help the students connect the lessons to real world experiences. One example involved a physics class in which students built bridges to determine what would support different weights. To add to the students' understanding of gravity and force distribution, students had to figure out a way to drop a raw egg from the top of the bleachers so it wouldn't break. Another project involved an English class where the students had to write letters as if they were fighting on the front lines in World War I. Parents spoke admirably of the creativity demonstrated in the assignments, and said this illustrates the extra steps teachers take to reach out to students and engage them.

Teacher collaboration and intervention

Colleagues are a key source of creativity for Centennial teachers. They attend professional development activities together (particularly teachers in the mathematics department), and meet formally and informally to discuss strategies to help struggling students and to enhance their instruction or find ways to deal with students who have different learning styles. For example, one ESL teacher was surprised at how open Centennial's teachers are to seeking her help when dealing with ESL students. She said:

I've had a lot of teachers...come to me and say 'I've never had a kid like this; I don't know what to do.' I think it's really important that when a teacher is confronted with something that's new to them, they're not afraid to go to another teacher and say 'How do I deal with one of your kids?' rather than trying to bend that kid and fit him into a round hole when he's a square peg.

There was a high degree of consensus among teachers that collaboration to improve instruction is important and necessary. On the teacher survey, 94 percent of teachers agreed that “teachers at my school work together to improve teaching and learning.”

Cross-curriculum collaboration also strengthens instruction at Centennial. Mathematics teachers may work with science and English teachers to enhance one another’s lessons and reinforce key concepts, for example by connecting what is learned in mathematics with a physics lesson. Staff members believe the friendly relationships they have with one another are helpful.

Teachers intervene to support student success

Intervention is primarily driven by teachers, who provide immediate feedback and assistance based on reviews of student progress. Once problems are identified, intervention takes place as quickly as possible. Teachers spend extra time helping students who are falling behind in their work by participating in after school tutoring programs or scheduling extra time with students during their planning periods. The CPS district also provides tutoring which is more “generalized” but still a resource for OGT preparation.

Teachers say they often give up lunches or conference periods to meet with students before school, after school, or in the tutoring program. “A lot of times students don’t really volunteer themselves to come get help,” said a mathematics teacher. “Teachers will literally come and drag them, ‘let’s go for some tutoring.’ We drag them out of study hall to come in for tutoring.” Bus transportation is available for students who use the after school tutoring services.

In focus groups, students said that teachers are their primary resource when they encounter difficulty with a particular subject. Most students seemed to enjoy their teachers and described them as very helpful. “In calculus, I can go see my teacher whenever,” a student stated. “She really makes sure that I understand it because that’s probably my second most difficult subject right now.”

Parent opinions about Centennial’s teachers were consistent with comments from teachers and students. Noting an open door policy, parents said that the teachers communicated with students freely and were available to spend time counseling students about college and future plans. Other parents observed that teachers stay after school and on weekends to help students with their subjects. One parent said, “If the kids don’t understand something one way, they put it different terms so they can understand. Another parent described a teacher’s efforts to help her daughter:

My daughter is concerned about her testing scores and when she came to this high school, the mathematics teacher stayed after with her so that she could feel comfortable with the subject and what she knows about it.

Typically, teachers initiate parent contact immediately when students are struggling, falling behind, or experiencing problems. Teachers also volunteer their time on an “intervention team” (IT). If individual teachers’ efforts to contact a student’s family regarding problems at school are unsuccessful, the IT team follows up with parents of struggling or truant students, adding another layer of intervention.

In addition to receiving support from teachers, students also receive assistance from peers. The National Honor Society advisor at Centennial spoke of the staff’s plans to pair students who may be struggling to pass the OGT with upperclassmen who can provide guidance. In the past, the school paired three or four students with an instructor who was not the student’s teacher. This teacher would meet with the students to provide mentoring or other support as needed.

The idea behind this project is that students may feel more comfortable with a teacher they don't encounter in a classroom. Peer support adds another layer of support to teachers' efforts.

4. The school engages parents and the community to support student success.

Centennial embraces a philosophy of partnership with families and makes a strong effort to involve parents in school life. Principal Hershey considers the collaboration of parents, students and teachers as an educational "tripod." She said, "All three of us need to work. It can't just be parents, or just teachers and students. The parents have to be there to help us keep pushing their child."

In the past, Centennial faced the possibility of closing because of low enrollment. Parent support was seen as the reason Centennial has remained open. The school actively solicited new students from other parts of the city through the school lottery system. "I think it would have closed if the parents hadn't rallied behind the school," said Principal Hershey. Because parents and students choose Centennial, the staff says parents share a sense of ownership in the school that translates to strong support for the school's high expectations. A teacher said:

Their parents or somebody in their family has recognized Centennial as a destination. [The students] are here for a reason. So you can elicit the parent's support for your program. And they want that, they want the communication, and they want the kids to have that opportunity to make that choice and it starts with the freshmen every year.

Today, parents are often the driving force behind the decision to attend Centennial. Initially, parents may research various schools by reviewing information provide on the District Website and by visiting several schools to see the environment first-hand. According to one Centennial administrator, "We are getting more sophisticated parents who understand how they can research schools."

Once they have experience with Centennial, parents become a valuable referral source for new students. Many educators and parents refer their friends and relatives to Centennial. Teachers believe that students and their families are drawn to Centennial's academic focus. One teacher said:

We've always had a very strong faculty and this school has gone through so many changes over the years. More kids are coming from families whose parents want them to be educated. More and more families send their kids here because of our reputation of being a fairly strong academic school.

Parents generally agreed that teachers and the school encouraged parents to communicate with them and to be involved in school related activities. During interviews, almost every parent mentioned that Centennial has a strong PTA, which was described as being an active fundraising organization for the school. Some parents believe the PTA, which assists with athletic, theater and music programs, is the best in the Columbus school system. The PTA also raises money for the school and volunteers for events such as the National Honors. One parent said:

I know the principal. She is at every [school event]. That takes a lot of time out of her day. She is at the school until 5 or 6 at night. She is involved in her school so she knows all the parents when they come in and allows the parents to feel

welcome to come into the school. As parents, we are always notified of all the different programs at the school even if your child isn't involved in that program.

Centennial also employs two parents as liaisons. Funding is provided through a grant from the district and covers 10 hours of work a week. Alternating days, the parent liaisons answer phones for the school's staff and serve as a resource for parents. The liaisons also act as "ambassadors," speaking at Centennial's open houses, talking about Centennial to other parents, and explaining why their children chose to attend the school.

Because the school has a diverse student body, teachers sometimes have a difficult time sharing student progress with parents who are still in the process of learning English. Although the district provides translators, it can take too much time to access one when the communication is time sensitive. To alleviate this, Centennial has at times offered ESL support to parents to help them learn English.

Although teachers try to contact parents when a student is struggling, they wish they had more time and opportunity to communicate with parents when students are doing well. They are trying to utilize more web-based technology like Blackboard (a web-based classroom management system) to increase the frequency of contacts with parents and as a way to share routine information about the daily happening in the classroom.

5. The school creates a culture where each individual feels valued.

School norms promote a sense of community

Centennial's sense of community is described by administrators and teachers as a cohesive community that possesses a shared set of values, beliefs, and attitudes related to teaching and learning. The result has been a low turnover rate and a staff that goes beyond the call of duty. The assistant principal said:

It's a wonderful place to work and no one here, the custodial staff, the kitchen staff — only maybe one or two voluntarily might want to go someplace else. Most retire here and most hope to retire here. I don't know how many people ask me, 'if you have an opening let me know, I want to come to your school.'

With 800 pupils, the school's relatively small size creates a sense of community that extends beyond the walls of the schools. Teachers understand that students may be dealing with outside pressures that affect classroom performance so they try to help students who are having family problems by establishing support groups. "You have to have the ability to empathize," said a teacher. "We might not live in that same situation but we have to be able to understand what they're bringing to the table."

Students respond positively to the environment, as evidenced by a stable student population. Centennial has an 8 percent mobility rate compared to the district's 18 percent mobility rate (see Table 1). According to the principal, most students complete all four years. The small school size provides students with more individual attention and more opportunities to be involved in school activities.

Teachers are enthusiastic about teaching and build relationships with students

Teachers' positive attitudes towards their students and passion for teaching form the critical foundation for Centennial's culture. According to both teachers and administrators, effective teachers enjoy the experience of teaching as much as their subject matter. Instructors note that it is not enough to know the content. The most effective teachers enjoy their work and care about the students. Teachers believe that their enthusiasm, in turn, motivates students. A mathematics teacher noted:

Teachers' attitudes toward students are a big thing. I think if a student sees that a teacher is actually happy to be here or excited to teach mathematics or whatever subject, that draws in the student's attention.

Teachers say that sensitivity is essential in their jobs, especially when dealing with students who may have a difficult home environment. It is crucial that teachers care about students outside of academics and share a rapport with them. One teacher put it this way:

I like the idea of strong academics, however they are other things in life that come up that [students] are dealing with. A lot of times, it's survival. Some of our kids come from a place that we would never even understand. We might not live in that same situation but we have to be able to understand what they're bringing to the table.

In classroom observations, observers noted a positive climate throughout the school. Teachers employed verbal praise while maintaining a professional tone and demeanor. The teachers clearly cared about the students. For example, in one mathematics class where the students were working in small groups, the teacher assisted those who were having trouble. It was obviously important to her that all of the students understood the concepts.

Students said that they enjoy their classroom experiences at Centennial because of the teachers, who they describe as knowledgeable, engaging, and fun. In interviews, parents indicated that they felt teachers are a significant reason for Centennial's success. They also described teachers as enthusiastic, involved and willing to provide additional help to students when necessary. They appreciate how the teachers treat their children as individuals with valued opinions, and how the teachers present the subject material in creative and interesting ways. As a result, teachers and students form strong connections, as one parent described:

There is a teacher we met who we connected with and is partly why we choose that school. She has been helping her all through school and she still goes in and talks to her. They share a love of good books and classics and they get into good discussions about it.

School culture embraces diversity

Diversity is also a hallmark of Centennial High School. Centennial is one of the most diverse schools in Columbus with students from at least 35 different countries and a place where cultural diversity is valued. Principal Hershey believes the environment gives students the opportunity to learn about other cultures. The assistant principal said:

[Other schools] might have a small population of Somali students perhaps but we have some from Egypt, some from Algeria, from Honduras, Chile, China....The thing that I find the most amazing is some parents opt to have their kids in a

diverse population because they understand in the corporate world you have to be able to get along. This is something these kids are growing up knowing to do.

Centennial's staff recognizes diverse cultures as components of the mainstream at the school. Teachers demonstrate respect for cultural differences, and the ESL department at Centennial illustrates this principle. The city of Columbus has a significant and growing immigrant and refugee community, which presents some unique challenges for schools. As one ESL teacher noted:

When you have an American sophomore, you know he's been to school nine, 10 years, but we don't know that with our [international] students. Their education could have been disrupted by a year or so....Their parents want them to do it, but sometimes their parents can't help them at all, other than making sure they are at school.

Centennial's ESL teachers believe the high diversity and the mix of students serve as an advantage for Centennial. "Our ESL population is very diverse and so we don't get a lot of one group thinking they're the majority. Now the biggest majority is no more than 30 percent of one group." This is perceived as helpful in increasing communication and contact among the diverse students in the class.

Classroom observers noted the strong positive tone and climate prevalent in the ESL classes. ESL teachers appeared to have a warm supportive relationship with the students, often sharing personal stories or jokes with the class. In addition, the students often joked with each other and, generally, seemed to have good relationships.

Respect for diversity also extends to the mental health and special education departments. One administrator said, "We have our MH department, and I'm amazed at how kind and compassionate our students are to these kids. We have kids here that can't even open up a lock."

The school promotes diversity through events, displays, and factual handouts. For example, teachers incorporate activities in their classrooms during Black History Month in February, and the school holds a multi-cultural festival in April. In the classroom, one teacher described how she rotates groups to increase interaction among her diverse students. "For the mathematics classes we have tables, so they sit in groups of three or four. We rotate that occasionally so that they meet everybody else and work with everybody else."

Although students did not speak specifically about the school's diversity in focus groups, parents often mentioned it as something that is distinctive about this school. Specifically, parents expressed a sense of gratitude that students had the opportunity to meet many others different from themselves.

Norms of discipline and mutual respect

An essential element of the culture is the emphasis on the importance of discipline and structure. Students said they appreciate their teachers' high level of discipline and strict enforcement of appropriate behavior. Some students voiced frustration that the more laid back teachers did not get as much accomplished. One student said, "If you have a teacher that's very laid back and not strict and then on top of that you have a class full of students who don't care whatsoever, you accomplish nothing."

Centennial has a reputation among students, parents, and school staff as a safe and secure environment. Students do not worry about violence or being distracted by classmates' bad behavior. In interviews, parents commented that they appreciate the structure, discipline, and safety at Centennial. In addition to the smaller size and the role of the principal and administration in daily matters, they too cited the school's safety. As one parent explained, "It's similar to a private school with the discipline level. And the children do not come home and tell me that police were called in. It's not as rowdy as other schools."

In classroom observations, observers noted high levels of discipline and behavioral management. Teachers demonstrated strong behavioral and classroom management and usually addressed every instance of student misbehavior. Teachers noticed students who were not paying attention and would attempt to include them in the lesson or would call upon them to answer a question. Even in classes in which minor instances of misbehavior such as side conversations occurred, such incidents did not take time away from the lesson; teachers quickly pre-empted misbehavior.

Summary

Many schools would struggle to provide a quality education to a school population where almost half of the students (47%) are economically disadvantaged and students come from at least 35 different nationalities. While it has been challenging, Centennial High School has successfully translated this diversity into becoming an Ohio *School of Promise* which recently was named as one of the top high schools in the country by *Newsweek* magazine.

Overall, Centennial's success can be attributed to many factors, but several stand out: a highly skilled team of teachers who have extensive experience with designing curriculum and aligning instruction to standards; spontaneous and structured collaboration among staff; a strong academic focus and emphasis on college preparation; high expectations and an emphasis on concept development; strong support of parents; and mutual respect among students and teachers in a culture that embraces diversity.

Centennial's teaching staff is at the heart of its high performance. The teaching staff is highly educated (most have masters degrees) and very experienced in the classroom (they average 20 years experience). Because of their experience the CPS district has asked many of the teachers to play key roles in developing the district's curriculum, which is also used at Centennial. Since teachers have a strong understanding of the standards, they have been granted additional autonomy to make decisions within their departments and are invited to contribute to decision making at the school level.

Teacher leaders continue to play an important role in the professional development of their colleagues, particularly in the mathematics and science departments through the school's participation in national conferences in mathematics, science, and technology as well as participation in the Urban Systemic Project (USP) funded by the National Science Foundation (NSF). Teachers in turn believe in empowering students. Teachers emphasize the use of higher-order teaching strategies, scaffolding, and concept development, and students respond favorably to taking an active role in the classroom experience.

School-wide, teachers have adopted high expectations for students and believe the goal is to prepare students for college. This emphasis is reinforced throughout the students' time at Centennial. The school offers an impressive array of AP courses in almost every subject. A majority of the students continue on to college after graduation. The school is exploring a

program that would allow advanced high school students to earn college credit through distance learning programs.

Principal Frances Hershey keeps the standards high while promoting a collaborative educational environment. Centennial's teachers, parents and students acknowledge the important positive role of the principal and her willingness to consider the staff's opinions about school policies. To address potential concerns and solicit feedback, Hershey meets with staff, various committees and members of the PTA regularly. Teachers and fellow administrators say the principal communicates her expectations clearly and encourages and supports teachers to set high standards.

The administration at Centennial believes in the value of diversity and the importance of identifying students' needs. Teachers have responded by seeking to understand their students' different learning styles and try to modify lessons to meet students' various needs. Teachers know they need to be sensitive so that the students feel comfortable enough to approach them.

The ultimate evidence of Centennial's success may be parents' desire for their children to attend the school. Centennial draws students from across the district, attracting families who embrace the school's diversity and strong emphasis on college preparation. Sharing the staff's high expectations for student success, parents are extremely supportive of the school and actively involved in school activities. The school's PTA is recognized as one of the strongest in the city and schools employed parent liaisons between the schools and other parents is a model for engagement.

Centennial's educational example is one the citizens of Columbus and the State of Ohio should be proud.

“Lessons Learned” at Centennial High School

1. The school delivers rigorous instruction aligned to the standards.

- All instruction is aligned to the state standards through a comprehensive district-wide curriculum. A significant portion of Centennial's teachers, particularly in the English and mathematics departments, have contributed to the district curriculum, a role which has enhanced their understanding of the standards and improved alignment of their instruction
- Teachers at Centennial collaborate vertically and horizontally to align all instruction to the standards, through common planning time but more importantly through frequent informal networking.
- The school clearly communicates standards and expectations to the students and parents; students, parents, and teachers agree administrators convey standards clearly and effectively, linking daily lessons to the standards.
- The school provides extensive support for students with a college preparatory focus – teachers and administrators set high academic goals for all students, and academic rigor is an integral part of the school culture
 - The school is exploring a program to allow advanced students to gain college credit or an Associate's degree while still in high school.
 - The school offers AP courses in almost every subject, which attracts students and parents interested in strong college preparation.

2. The school provides leadership that results in continuous improvement of instruction.

- Centennial's staff develops and maintains a common vision for the school that is rooted in a deep understanding of the strengths and needs of their students
- Principal Fran Hershey is a collaborative but decisive leader who values others' opinions and regularly includes teachers in the decision making process at her school.
- Instructional leadership promotes a unified effort toward student achievement
 - The school improvement plan is data driven and created by a committee of parents and teachers under the principal's leadership.
 - The principal meets regularly with department chairs, committees, and the entire staff to keep them informed and to maintain a regular cycle of feedback.
- Teachers are highly skilled in their fields of study. More than three quarters of Centennial's teachers hold master's degrees. Almost all teachers are considered highly qualified (HQT), and eight teachers are nationally certified.
- Professional development activities at Centennial and the CPS district emphasize differentiated instruction to meet diverse student needs, Ohio academic content standards, and teachers' content areas.
- Teachers serve important leadership roles at Centennial
 - Teachers have autonomy over departmental decisions and are invited by the principal to contribute to school-level decision making.
 - A large proportion of Centennial's teachers have contributed to the district curriculum
 - Teacher leaders at Centennial play a national role in professional development of colleagues and peers through the Urban Systemic Project, the National Council of Teachers of Mathematics, and Texas Instruments' Teachers Teaching with Technology (T³) conference.

3. The school designs instruction to ensure every student's success.

- In terms of academic content standards, administrators believe it is important to be "deliberate" in identifying pupils' needs, and to use grade level indicators diagnostically.
- Centennial's culture focuses on student strengths and teachers work to develop effective instruction tailored to student needs; when necessary, teachers modify their instructions to accommodate student needs. Formal and informal networks of collaboration support teachers' efforts to improve instruction.
- Teachers intervene directly with students when additional support is needed, providing immediate intervention in the form of extra time during free periods and after school to tutor students.
- Teachers employ a variety of instructional techniques and incorporate technology to engage students, and instructional strategies emphasize concept development not just rote memorization. Higher-order thinking and analysis is emphasized and engrained in the school culture.

4. The school engages parents and the community to support student success.

- Centennial embraces a philosophy of partnership with families; the school welcomes and regards parents and families as important members of the school community. Parent support is seen as an important part of the school success, and is perceived as a reason the school has been kept open despite declining enrollment
 - Parents are considered the driving force behind students' decision to attend Centennial, and many seek out the school because of its rigorous academic focus and diverse culture.

- The school employs two parent consultants serving as liaisons between the school and a form of outreach to parents
- Teachers and administrators frequently communicate with parents, involving them as soon as possible when students experience difficulty.
- The school maintains close collaboration with Columbus State Community College and has a program in which high school students can earn college credit and even an associate's degree online during the school day.

5. *The school creates a culture where every individual feels valued.*

- Centennial's sense of community is described by administrators and teachers as distinctive. Staff possesses a shared set of values, beliefs, and attitudes related to teaching and learning and form a cohesive group.
- The staff shows deep regard, mutual respect and caring for the students as individuals. Teachers spend time working with students individually.
- The school's small size contributes to the sense of community. Teachers care deeply about their subject areas and about supporting students; they are sensitive to students' educational and personal needs.
- Diversity is a hallmark of Centennial High School. Centennial is one of the most diverse schools in Columbus with students from at least 35 different countries. The climate is one of inclusion and acceptance at many levels.
- Teachers and administrators emphasize the importance of discipline and structure. Students said they appreciate their teachers' high level of discipline and strict enforcement of appropriate behavior, Centennial has a reputation among students, parents, and school staff as a safe and secure environment