

North Hagerstown High School Case Study

Prepared for
The Maryland State Department of Education
Study of Adequacy of Funding for Education in the State of Maryland

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Case study developed as a part of the firm's
Evidence-based adequacy study for Maryland
The work was a subcontract from APA Consulting.

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October 2015



Executive Summary

North Hagerstown High School is an example of the first category of schools – a high performing school.

North Hagerstown High School (NHHS) is one of two high schools that serve the City of Hagerstown in Washington County Public Schools. The school offers grades nine through 12 and has an International Baccalaureate (IB) program and a range of on-level, honors, and Advanced Placement (AP) courses. In December 2014, 1,280 students were enrolled at NHHS. The student population is diverse both economically and racially. From 2004 to 2014, the number of students who receive free and reduce-priced meals (FRPM) increased from 26.6 percent to 47.3 percent.

North Hagerstown High was identified for this case study because of the high performance of students on the Maryland High School Assessment (HSA) between 2008 and 2013. During these years, an average of 92 percent of students performed at the proficient or advanced levels. Much of this success can be attributed to an instructional program called the Matrix, which involved all grades nine and 10 English students and all Algebra I students. In math, the Matrix program featured collaborative planning and teaching; flexible grouping; intensive, targeted instruction; and frequent data analysis. The English Matrix involved teams of teachers working with groups of students throughout grades nine and 10 with clear goals for intervention, enrichment, and growth for each student. Grant funding paid for teachers' time for after-school planning and small learning communities, which promoted collaboration and a positive school culture. These funds also provided subject area specialists in English and math, who helped teachers with planning and data analysis. This program lost funding in 2011 and was not in place at the time of the site visit in 2015.

Other factors that contributed to student success include strong and supportive leadership at both the school and district levels, and meaningful professional development (PD) opportunities. Advanced Placement and International Baccalaureate programs increased academic rigor. A variety of programs and personnel were in place to meet the academic, social, and emotional needs of students at risk of academic failure, including a school-wide advisement program, tutoring programs, special education programs, and other interventions.

It should be noted that significant changes have occurred in the school and district in the past few years that have impacted instruction, student performance, school culture, and professional development. The district's superintendent, who was named the national Superintendent of the Year in 2010, retired in 2011, and the longtime North Hagerstown principal retired in 2012. These changes led to staff turnover and other challenges that have affected school culture. The district's recent change from block scheduling to 50-minute periods has also affected instructional practices, reduced the amount of time for planning and collaboration, and altered the pacing of the school day. Under the new schedule, teachers have less time to integrate multiple activities and practice opportunities into each class session. Students can take a

maximum of 24 credits rather than the maximum of 32 they could take with block scheduling, leaving students with fewer opportunities to take electives or retake courses they have failed.

Another significant change was the end of a grant that funded the highly successful Matrix program. The grant funded small learning communities, additional staff positions, and time for after-school planning, all of which were identified by the faculty as key components of improving student performance. Taken together, these changes posed multiple challenges for the school, and student performance declined in 2012 and 2013.

Introduction

North Hagerstown High School (NHHS) is one of two high schools¹ that serve the City of Hagerstown in Washington County Public Schools. Students come from two middle schools, which in turn draw from many elementary schools. The student population is both economically and racially diverse.

The school offers grades nine through 12 and has an International Baccalaureate (IB) program and a range of on-level, honors, and Advanced Placement (AP) courses. It also offers a full range of extracurricular activities including athletics, band and chorus programs, and a variety of clubs focusing on art, robotics, drama, education, and other areas.

In December 2014, 1,280 students were enrolled at North Hagerstown High School. Table 1 shows enrollment by grade-level. Student attendance has remained consistent at 94 to 95 percent over the past decade.² In that same time period, student mobility has ranged from a high of 24.9 percent in 2006 to a low of 16.4 percent in 2010. The rate was 19 percent in 2014. The principal noted that many transient students go back and forth between North Hagerstown High and South Hagerstown High, the other high school in the city. The two schools are increasing communication to facilitate the transition of these students.

Table 1
North Hagerstown High School Class Sizes December 2014

Grade-level	Enrollment
Grade Nine	387
Grade 10	331
Grade 11	274
Grade 12	288

Over the past decade, there has been a large increase in the number of FRPM students at North Hagerstown High. In 2004, 26.6 percent of enrolled students were identified as FRPM, and that number increased to 47.3 percent in 2014 and to 49.4 percent in 2015. The number of students identified as limited English proficient (LEP) and the number of students enrolled in special

¹ Both high schools are similar in size and demographic makeup.

² The school is implementing a new attendance system that tracks attendance by period rather than by day, so the principal anticipates a drop in these numbers in future reports.

education have changed little across the past decade. Table 2 shows the demographic characteristics of the North Hagerstown High student body.

Table 2: North Hagerstown High School Student Characteristics 2014-15 school year

Student Characteristics	Percentage of Student Population
Race/ethnicity	
American Indian/Alaska Native	0.2
Asian	2.7
Black/African American	23.3
Hispanic/Latino	7.2
Native Hawaiian/Pacific Islander	0.2
Two or more races	7.9
White	58.5
Eligible for free or reduced-price meals (FRPM)	49.4
Limited English Proficient (LEP) students	1.8
Special education students	9.6

North Hagerstown High School experienced significant changes in the past several years that have impacted instruction, student performance, school culture, and professional development. There have been several changes in the administration of both the school and the district. The district’s superintendent, who was named the national Superintendent of the Year in 2010, retired in 2011 and the long-time North Hagerstown principal retired in 2012. These changes led to staff turnover, new policies, and other challenges that have affected school culture. For example, the successful student advisement program was discontinued and funding for professional development was greatly reduced under the new district leadership. The district’s recent change from block scheduling to 50-minute periods has also affected instructional practices, reduced time for planning and collaboration, and impacted the pacing of the school day.

Another significant change was the ending of a federal grant in 2011 that funded small learning communities and their work with the highly successful Matrix program, an instructional approach that allowed teachers to regroup students for specialized instruction and intervention in math and English. The grant funded additional staff positions and time for after-school planning, both of which were identified by the current faculty as key components of improving student performance.

School Performance

North Hagerstown High was identified for this case study because of the high performance of students on the Maryland High School Assessment (HSA) between the years of 2008 and 2012. In 2013 and 2014, there was a slight drop in overall student performance and a larger drop in the

performance of subgroups. These shifts contributed to the school moving from Strand 2 to Strand 5 on the School Performance Index.³ This case study will explore factors that led to student success 2008-2012 and will identify factors that contributed to the drop-in student performance in the past two years.

Table 3 shows the HSA student performance for all students (averaged) and for subgroups. Between 2008 and 2014, an average of 91 percent of students performed at the proficient or advanced levels, making North Hagerstown one of the top performing high schools in the state.

Table 3
North Hagerstown High School Performance, Maryland High School Assessment (HSA), 2008-2013

Average School-Wide Percent Scoring Proficient/Advanced in Reading, Math and Science							
Performance Level	HSA 2008	HSA 2009	HSA 2010	HSA 2011	HSA 2012	HSA 2013	HSA* 2014
All Students	88	90	91	93	95	93	88
Free and Reduce-Price Meals (FRPM) Students	76	83	87	85	91	87	NA
Special Education Students	53	73	83	84	80	68	NA
Limited English Proficient (LEP) Students	-	-	-	-	-	-	NA
Non-White/Non-Asian Students	80	84	88	86	93	92	NA

A “-“ indicates either no students or the number of students was suppressed due to too few students in the category.

*Assessment data by student subgroup for 2014 were not available at the time this report was written.

School Staffing

The North Hagerstown High administrative team consists of a principal and three assistant principals. The principal was new to NHHS in 2014-15. She was previously the principal at one of the district’s middle schools.⁴ The instructional staff (see Table 4) includes 53 core subject teachers and 15 elective teachers, along with eight special education teachers, an LEP teacher,

³ The School Progress Index evaluates high schools on indicators of Achievement, Gap, and College and Career Readiness. See <http://www.mdreportcard.org/SpiOverview.aspx?PV=14:0:21:2101:3>

⁴ Update: Since this report was drafted, the principal moved to a position in the district’s central office. A new principal for NHHS was appointed.

Table 4
Staffing at North Hagerstown High School

Category	FTE
<u>Administration</u>	
Principal	1.0
Assistant Principals	3.0
Athletic Director	1.0
Clerical (Includes 2 secretaries for Counseling Center)	7.0
<u>Main Program</u>	
Core Teachers English – 13 Math – 12 Science – 11 Social Studies – 11 Foreign Language – 6	53
Elective Teachers Music – 3 Art – 2 Physical Education/Health/Life Skills – 6 Family and Consumer Science – 2 Career Technology – 2	15
Special Education	8.0
English Language Learners	1.0
Library Media Specialist	1.0
International Baccalaureate Coordinator	1.0
Instructional Coaches	2.0
<u>Aides</u>	
Instructional Support	7.0
Intervention Services Specialists	2.0
<u>Pupil Support</u>	
<u>Licensed</u>	
Social Worker	1.0
Guidance Counselors	4.0
<u>Non-licensed</u>	
Custodial Staff	9.0
Lunchroom Staff (14 part time. Exact number of FTEs could not be determined.)	
<u>Contracted Positions</u>	
Nurse	2.0
Athletic Trainer	1.0

and two instructional coaches for math and English. The staff also includes a guidance counselor for each grade, a full-time librarian, an IB program coordinator, and a team of instructional aides and support staff. Table 4 shows the breakdown of school staff by full-time equivalent (FTE) position.

The North Hagerstown staff includes several positions that are shared with other schools in the district. These positions include a pupil personnel worker, a school psychologist, a speech pathologist, and a computer technician. The pupil personnel worker serves as a liaison between school and families, helps address issues such as attendance, crisis support, and residency, and arranges counseling and advocacy services as needed. The school's social worker also facilitates these efforts.

The special education staff works with several different programs and initiatives. There are four special education teachers who support specific content areas – one in math and three in reading. These teachers provide pull-out instruction for individuals and small groups of students. Two special education teachers and three paraprofessionals work with non-diploma seeking students in the Life Skills program. The Summit program supports students with emotional challenges and is staffed by two special education teachers and two aides. Two aides work with students in the special education resource room, with one aide in the room each period and the other providing support in subject area classrooms.

School Goals

In its annual School Improvement Plan (SIP), North Hagerstown administrators and staff outline several goals for student and school performance. For 2014-15, the three broad goals are as follows:

1. Identify and implement research-based instructional and assessment strategies to increase student achievement.
2. Increase parent and community involvement.
3. Implement research-based school-wide programs and strategies to address student discipline, increase student attendance, and reduce suspensions and student dropouts.

The Action Plan includes multiple action steps, target dates, and required resources for meeting these goals. For example, some of the action steps for goal one include providing differentiated professional development opportunities, providing a variety of academic enrichment and intervention programs, and implementing an instructional help period for students at risk of academic failure. Action steps for increasing parent and community involvement include hosting student recognition events, increasing positive communication with families, and hosting college prep events, among other things.

In addition to the school-wide goals, teachers set individual student performance goals through student learning objectives (SLO). The school also uses the Classroom Focused Improvement Process (CFIP) to collaboratively analyze student learning data and set goals for individual students and whole classes.

School Schedule

Until 2014-15, North Hagerstown operated on a block schedule with four 90-minute periods per day. Courses were one semester long with students beginning new classes each fall and spring term. In the 2014-15 school year, the school switched to the district-recommended six-period day with each period lasting approximately 50 minutes. Most courses run for the full academic year. The rationale for this change was to provide students with continuous instruction in core subjects – especially reading and math – to make sure they are ready for the PARCC exams, which were administered for the first time in spring 2015.

The school day at NHHS is from 8:45 a.m. to 3:30 p.m. Students have six periods of instruction. To accommodate four lunch rotations, fourth period includes a half hour for lunch and a 90-minute block for instruction. During this block period, students can receive extra help from teachers or they can enroll in semester-long math, science, or language courses, which allow them to catch up if they are behind or prepare them for higher-level courses in their senior year.

Collaborative Planning Time

Teachers have one planning period each day. Teachers are required to attend a CFIP meeting every Wednesday during their planning time. These meetings include all teachers who share the same planning time and cut across subject areas and grade-levels. During CFIP meetings, the principal leads data analysis and goal-setting activities. Department meetings and faculty meetings are held monthly, but planning is not the focus of these sessions.

At the time of the site visit there were no structures or schedules formally in place for collaborative planning, such as scheduled team or unit planning time. Teachers noted that they informally share ideas and resources with others who teach the same subjects. Special education teachers communicate with content-area teachers regularly to plan for specific students and to align instruction. Instructional coaches are available to assist teachers with planning, but there is not a formal system or schedule for these meetings.

In the past, there was a more deliberate approach to collaboration. The school received federal funding from a grant to create and support small learning communities (SLC) that allowed subject-area teams to plan together. Teachers in these SLCs worked closely to create and implement a Matrix program, described below, from 2005-2011. Much of this planning occurred before and after-school and teachers' time was funded by the grant. In addition, the school employed Subject Area Specialists (SAS) to plan with Matrix teams and content area teachers. These positions ended when the grant expired in 2011.

Many teachers feel that the longer planning periods permitted by block scheduling facilitated communication and collaboration between team members and with the special education staff. They noted that their current, shorter planning periods do not allow for collaboration since there are so many other things they must accomplish in the 50 minutes. Also, the end of funding for collaborative planning time has negatively impacted both instruction and school culture since teachers no longer have time to work as a team.

Curriculum and Instructional Program

North Hagerstown High offers a standard high school instructional program that includes core academic classes and required and optional electives. According to the district's 2015-16 Program of Studies, students must earn 24 credits to graduate (English-4; Math-4; Science-3; Social Studies-3; Physical Education, Life Skills/Wellness, Fine Arts, and Technology-1 each; electives-6). Other graduation requirements include:

- Complete the requirements for a University of Maryland Completer program (two world language credits and four math credits) *or* a Career Technology Completer program (students can choose from several career and technology programs);
- meet the state required scores on assessments; and
- complete a minimum of 75 hours of approved student service learning hours.

Washington County Public Schools follows the Maryland College and Career-Ready Standards (MCCRS). While teachers have general curricular guidelines, there is great variation on how teachers approach content in their individual courses. Some math teachers noted the vague nature of the math curriculum under MCCRS and the need for more time to collaboratively plan and develop curriculum together.

When asked about the school's past success in increasing student performance and reducing the achievement gap, teachers identified several factors. These included longer class periods; intensive individualized instruction via the Matrix program; and support and enrichment programs, including advanced course offerings, the AVID program, and early college options.

Instructional Time

As noted above, NHHS operated with 90-minute periods until the 2014-15 school year. Teachers found that there were many advantages to block scheduling, including the fact that students had the opportunity to take more classes across their high school career. Students could take up to eight classes per year, for a total of 32 credits, whereas they are only able to take a maximum of 24 credits (six classes per year) under the new schedule. Teachers felt the block schedule offered students more flexibility and more chances to succeed.

Under the new schedule, students have fewer course choices. For example, several years ago, the social studies department merged U.S. Studies and Government into a two-semester course for grades nine and 10 students. The integrated course helped students make connections across the

two subjects. This year, however, the department reverted to offering the two courses separately due to the new schedule. Other electives, such as journalism, drama, and creative writing, have either been removed from the curriculum, or students do not have the time in their schedule to take them. Teachers noted these changes reduce the overall opportunity for exploration, creativity, and curiosity in school.

The block schedule offered other advantages, including more time for individual and collaborative planning. One teacher said, “We had more time to meet as a team to review data and think about student grouping.” Longer class periods gave teachers opportunities to build in more activities and transitions to keep students engaged and provide practice and enrichment opportunities.

Matrix Program

Teachers universally acknowledged the significant role the Matrix program played in improving student achievement. The Matrix program grew out of the small learning communities that were funded from 2004 to 2011 by a federal grant that allowed the school to hire additional staff, and supported before- and after-school planning meetings and professional development. The program featured intensive data collection and analysis, collaborative planning, and strategic, flexible grouping. Subject Area Specialist (SAS) teachers, who were content-area experts, facilitated data analysis, planned with teachers, and recommended relevant resources.

The Matrix program involved all grades nine and 10 English students and all Algebra I students. Teachers worked in SLCs to plan and review data on each student. The key instructional strategy was strategic flexible groupings, especially in math. Algebra I students were grouped based on performance and could be moved to another group as soon as they mastered the necessary content. Intervention was immediate and targeted for each student. One math teacher said, “Kids were never backing up, so there was never a sense of failure.” Another noted, “In the Matrix, students didn’t have the option of failing. And you also could advance the ones who needed to be challenged. Success created success for students.” Teachers on the team could co-teach or trade classrooms for certain lessons if one teacher was particularly strong on a given topic.

In the English Matrix, grade nine students were divided into three groups, or “houses,” of approximately 120 students. Each house was assigned a team of English, social studies, and science teachers – seven total – who provided subject-area instruction to these students for grades nine and 10. Within each house, students were grouped into three broad categories: 1) prepared for grade-level English, 2) prepared in reading but needing writing support, and 3) requiring reading intervention. Specific course plans and resources were selected for enrichment, intervention, and remediation for the students in each category. The “house” approach is similar to a team approach where a group of teachers collaborate and plan together and attend to individual and whole-class needs.

The Matrix program gave teachers the time and tools they needed to analyze disaggregated data, identify the needs of each student, and develop plans and strategies to meet those needs. When funding ended, the collaborative planning time also ended and there were no longer SAS positions, which meant that teachers no longer had the time and support needed to run the highly successful Matrix. One teacher described the change from proactive intervention to reactive intervention: “Individualized instruction has greatly decreased. Now, it’s a lot more time doing catch-up. It’s all clean up.”

AP and IB Programs

Another factor that contributed to the success of NHHS students was the introduction of the International Baccalaureate (IB) program. Along with the Advanced Placement (AP) program, the IB courses provided opportunities and academic rigor for students. The district’s Program of Studies describes the IB program as follows:

IB requires students to complete college level courses in six academic groups while also completing a Theory of Knowledge course, writing an Extended Essay and participating in Creative (the arts), Action (physical activity) and Service (community service) activities. These requirements insure students are prepared for a college education by providing students with a freshman college experience during the students’ junior and senior years of high school.

In 2014, an all-time high of 98 students participated in the IB program, with 18 earning IB diplomas and 80 earning IB certificates. In 2013, 23 students earned IB diplomas and 36 earned IB certificates. The pass rate for students taking IB exams in 2012-13 was 82.5 percent.

The school offers AP courses in English, math, science, and social studies. Any student can enroll in an AP course, with or without a teacher’s recommendation. This leads to a wide range of abilities within the AP classes and might challenge some students to push themselves to higher levels of achievement. Students are not required to take the AP exam, but the district pays for half of the cost if a student does wish to take it. In 2014, 71.9 percent of students enrolled in AP courses sat for the AP exams. Students had a 45.2 percent pass rate (a score of three to five) on the exams. When the school began offering honors courses several years ago, AP enrollment dropped.

AVID (Advancement Via Individual Determination)

AVID is a four-year program designed to help B-level and C-level students prepare for college eligibility and success. These students are academically capable and willing to work hard, but are considered as not living up to their potential. If they are interested in the program, they complete an application and interview process and are then enrolled in a college-preparatory course of study and attend tutoring sessions twice each week. Parent engagement is an important component of the program. Parents must sign a contract agreeing to support their students’ academic success and the requirements of the AVID program, including attending parent meetings.

Early College Options

NHHS is part of a district-wide partnership with Hagerstown Community College (HCC). Academic success and rigor is encouraged through a variety of programs that allow students to take college courses while they are still in high school. For example, qualifying juniors and seniors can enroll in STEMM (Science, Technology, Engineering, Math, and Medical) Middle College, a dual enrollment program, or can pursue concurrent enrollment in high school and college. HCC gives students discounted tuition rates as required by Maryland law. Upward Bound, a program designed to help first-generation college students prepare for the academic and social demands of college is also offered at HCC and allows qualifying students to earn high school or college credits during the summer.

Extra Help Strategies for Students at Risk of Academic Failure

Several initiatives have provided students at risk of academic failure with extra support. Currently, National Honor Society members provide peer tutoring in every subject. Teachers also host before- and after-school tutoring sessions, such as the popular Calculus Club, held Monday through Friday before-school and Monday through Thursday after-school. Students who fail a course by 10 percent or less can join the Apex program, which allows them to make up the failed portions of the course. Those who fail due to attendance issues are eligible for Wednesday or Saturday school programs to make up the missed time.

For students who struggle to pass the HSAs, there are academic remediation courses and a Bridge program. The Bridge program is for students who pass the HSA-related courses but not the exam itself. These students complete projects that demonstrate their content-area knowledge. The Bridge program consists of cohorts of students who meet for individualized tutoring and project support. Approximately 30 to 40 students participate in the Bridge program each year, and teachers noted that enrollment has increased. In previous years, they felt that students showed more reluctance to rely on the Bridge program to graduate, but now there is less of a stigma attached to the program.

In 2013, NHHS started a freshman academy. This is a team approach to teaching that grouped 75 students, targeted because of academic, social, or other challenges, into common classes. The administration hopes that sharing common experiences and teachers will help the students develop a support network among their peers and the staff.

There are also supports in place for students who need special education services. As described above, a team of special education teachers and instructional aides provide academic, social, and emotional support to students identified for these services. For students who are significantly below grade-level in reading, there is pull-out support using the Wilson reading intervention program and Just Words, a phonics-based program. There is currently no standard math intervention program used, but that is something the principal is exploring.

Other school staff, including the social worker and intervention services specialists, provide support for students with behavior or attendance problems, or students who face serious challenges such as pregnancy, criminal records, residency and family issues, or health issues. These staff members work with families and various public and private agencies to support students, and they serve as a consistent point of contact and support for compensatory education students. During weekly student support meetings, key staff members discuss individual students' needs and progress.

During the years when NHHS saw strong student performance gains, the school operated a daily advisement program that supported all students. There were daily, 20-minute meetings that grouped students from every grade-level into a small community of 16 to 20 students. The group stayed together with the same teacher for four years, with new freshmen added to replace the graduating seniors. The students formed strong connections with the teachers and with each other. Teachers saw upperclassmen giving advice to younger students, and they noted the positive impact on school culture. Teachers used this time for team-building activities, to provide homework assistance, and to help students build schedules and develop four-year plans. It was an opportunity for continued one-on-one and small group support.

NHHS also offers support to students through the Twilight program, which provided preparation and remediation for HSAs. This program was implemented in 2006 and was funded by a mini-grant from the district's Director of Secondary Schools office. The funds covered stipends for teachers, resources and material purchases, and snacks and after-school transportation for students. This program provided individualized tutoring and training in test-taking technology. The grant, which must be applied for each year, has decreased in amount, and so the Twilight Program continues in diminished capacity.

Assessments

Teachers use a variety of classroom, district, and national assessments to monitor student progress. Classroom assessments are given regularly, but these evaluations are not standardized across classrooms.

Students take quarterly benchmark exams that are aligned with PARCC tests. These data are not broken out by topic or strand, as prior benchmark data had been, so teachers are not receiving the same level of detail from current district exams. PARCC exams were administered in spring 2015, and the staff anticipates learning a lot about the effectiveness of their test preparation and strategies based on this data. Students also take the HSA subject tests in spring 2015. Quarterly benchmark tests are given in non-PARCC subject areas.

Under the Matrix program, students were frequently assessed in math in order to determine appropriate grouping and support strategies. Teams worked collaboratively to find or develop appropriate assessments.

Professional Development

The district's Professional Development office was dissolved in 2012 and funding for professional development was greatly reduced. Under previous district administration, professional development was a priority that received more funding and support than it currently does. AP and IB teachers were able to attend important training and PD sessions that prepared them to deliver course content and lead other faculty. The district sponsored summer workshops that brought content area teachers within and across schools together to plan and share best practices. Teachers noted the great value of such collaborative meetings. Funding was available from the district for teachers to attend conferences and workshops to further develop their knowledge and skills, and teachers regularly shared their learning with other teachers at the school during collaborative planning time.

The Subject Area Specialists (positions that no longer exist) also facilitated planning and in-school professional development for content-area teachers. The SAS worked with individual and small groups of teachers to analyze data, plan lessons, and adapt material according to student needs. Teachers found this type of coaching and support helpful. The current instructional coaches provide some of these services, but they are not subject specific personnel.

In 2005, the faculty of NHHS received professional development based on Ruby Payne's framework for understanding poverty, which examines the impact of poverty on students' lives. Several teachers noted that this training was very helpful in building understanding of some of the struggles students might face living in poverty.

Because funding for professional development has been greatly reduced, teachers have few opportunities for external professional development. AP and IB teachers noted this as a concern, since extensive training is needed to prepare new teachers for these programs and keep experienced teachers up-to-date. They also noted that attending PD workshops in person was much more effective than when one person attends and reports back to the staff on what he or she learned. One teacher described the situation this way: "Trained teachers come back invigorated and enthusiastic. When you have a group of teachers with that enthusiasm and understanding of the big picture, they affect the whole staff with their knowledge." Teachers recognized the value of professional development in building school culture and student performance, and they lamented the severe cuts that have been made in this area.

School Culture and Leadership

Teachers felt a high level of investment and ownership in their work when they were involved with the Matrix program, and the advisement and tutoring initiatives. Under the previous administration, there was support for collaboration and professional development, both of which contributed to a positive school culture. Teachers had time for communication and common goals and visions. However, North Hagerstown High has experienced significant shifts in both school and district leadership that led to staff turnover and new policies that have negatively impacted school culture. The district's nationally recognized superintendent retired in 2011 and

the long-time North Hagerstown principal, who led during the school's successful years, retired in 2012.

Turnover in both the teaching staff and the school's administration has negatively impacted school culture. The new principal (appointed just this year, 2014-15) said that she entered a school where the staff was "fragmented," and lacked a common vision. She noted that there was not universal support for the school's goals, and many of the experienced teachers who led the school to success had left. However, several of the teachers expressed optimism that the newly appointed principal would initiate positive changes. They noted that they have seen an increase in the level of support provided by the administration.

Programs such as advisement and the Matrix provided a strong support network for students and helped build an environment centered on success. While these supports are no longer in place, the school does use a token economy (Hub Bucks) to reward positive student behavior, and many teachers engage with students by advising extracurricular activities and clubs. The staff and principal were discussing the possibility of resurrecting the advisement program.

Summary

The success that NHHS experienced in improving student achievement and closing the performance gap can be attributed to several factors and past initiatives, including the following:

1. **Small Learning Communities.** These funded learning communities allowed teachers to meet outside of school hours to analyze data and plan instruction. Teachers noted benefits of such regular collaboration and communication; student performance and staff engagement increased significantly.
2. **The matrix program.** This academic support program proved to be highly successful in improving student performance, especially in math. It promoted differentiation for supporting each student for success. It also contributed to collaboration across the staff, thus affecting school culture in positive ways as well. The Matrix was created and implemented by the staff in SLCs.
3. **Data-driven instruction.** Data was at the center of the work done in the Matrix program. All grouping and instruction was based on the regular collection and analysis of data.
4. **Subject Area Specialists.** These specialists served as instructional coaches, provided support for data analysis, collaborated in planning efforts, and recommended relevant resources for teachers. This level of support facilitated teachers' work. Improved instruction resulted in improved student performance.
5. **Advisement.** This program grouped students with peers from across grade-levels and with a teacher who met with them daily throughout their high school career. Students built relationships and had a strong support network. Daily time together was used for targeted

lessons, homework support, schedule planning, career counseling, and other important topics.

6. Support programs for students at risk of academic failure. Programs such as after-school tutoring, the Twilight program, and AVID helped students reach their potential by providing extra help and targeted intervention.
7. Strong leadership. Strong district and building-level leaders provided the guidance necessary for teachers and students to succeed. Administrators prioritized student learning, funded professional development, and unified the teaching staff.
8. Positive school culture. North Hagerstown High was characterized by an attitude of success. Both teachers and students felt supported in their work. Teachers were deeply invested in teaching and in connecting with students through programs such as advisement. Students' success was the expectation and the reality.

As this case study explains, NHHS has experienced significant changes and challenges over the past few years and student performance data reflect this.

The principal and staff identified challenges that will have to be overcome as the school seeks to regain the momentum it experienced from 2008-2012. These challenges include the following:

1. New initiatives. Teachers have been introduced to many new initiatives in the last three years, including MCCRS, PARCC exams, SLOs, and data systems. These initiatives have required time and energy from teachers who have less time available for planning, grading, collaborating, and building relationships with students. Teachers felt overwhelmed by the amount of new work and said much of it was not connected in meaningful ways to instruction and student learning.
2. Professional development opportunities. Professional development opportunities, particularly content-specific PD, have been greatly reduced since 2012. In addition, AP and IB teachers no longer receive ongoing training, and there is a lack of targeted PD for new teachers who join these programs.
3. Instructional resources. Teachers described a lack of consistent, aligned curriculum materials available to support instruction under MCCRS. They felt that subject-specific instruction coaches or specialists would help meet the need for support, as would time for collaborative planning. Currently, there is a lack of both of these things. Teachers also noted the need for additional technology to support changing instructional practices and online assessments. For example, they would like more laptops available for instructions since the school currently has just the number of laptops needed for testing.
4. Time. Teachers felt pressed for time. Planning periods were used for logistical matters, so little time was left for collaboration with colleagues, meeting with students, or researching new resources and materials. Teachers desired more time for planning, data analysis, and collaboration in order to improve instruction and meet the needs of all

students. They also expressed a need for more time to fully comprehend and implement the new initiatives required by the district.

5. Changing student population. North Hagerstown High has seen an increase in the number of students who require behavioral, emotional, or mental health support, and the principal anticipates that these numbers will continue to rise. The current support staff, which has a heavy caseload, will struggle to support additional students. More personnel and financial resources will be needed to meet this need. The principal also noted the need for more interventions for students at risk of academic failure who do not qualify for special education.
6. Funding. Many of the school's successful programs relied on grant funding that is no longer available. Funds are needed to pay for before- and after-school instruction programs and planning time, professional development, and extra staff.
7. School culture. The changes of the past several years, including changes in administration and the end of the Matrix program and small learning communities, have left the staff demoralized and fragmented. Students are also less connected to the staff and to each other since the advisement program ended. The new principal is working to rebuild unity and a positive school culture, and teachers seemed hopeful that under her leadership, the school will rebound.

Alignment with the Evidence-Based Model

Several strategies that helped North Hagerstown achieve high student performance levels align with the EB model. As this case study reveals, some of these features are no longer operating or have changed significantly. EB-aligned strategies are listed below, with dates to indicate when the feature was in place or if is a new or ongoing feature:

- Clear measurable goals. School-wide goals and individual teacher goals are related to student performance;
 - 2005-2011: Under the Matrix program, teachers articulated clear goals for each flexible group and each student.
 - Ongoing: The current School Improvement Plan outlines data-driven goals and action steps, although it is too soon to know if this process will result in improved student performance.
- Effective curriculum and instruction program.
 - 2008-2013: The Matrix program, AP and IB courses, and the AVID program are examples of instructional efforts that were in place when the school showed improvement in student achievement.
 - 2008-2014: Block scheduling allowed for more planning time, more course options and credit opportunities for students, and time for teachers to build in a variety of activities, enrichment, and practice into each class period.
 - Ongoing: Academic rigor is supported through AP, IB, and AVID programs.

- Interventions for students at risk of academic failure.
 - 2005-2011: The Twilight program, which provided after-school tutoring and transportation, has targeted students who needed extra support to be successful. Also, the Matrix programs, particularly for Algebra I, grouped and regrouped students during the academic year to meet the needs of each student.
 - Ongoing: A variety of programs and personnel support students who struggle academically, emotionally, or socially. The school employs a social worker, a team of special educators, and student support personnel to provide intervention and support. Programs such as APEX, the Bridge program, and Saturday school are designed to help students at risk of academic failure meet graduation requirements. The Twilight program continues in reduced capacity.

- Sufficient staffing.
 - 2005-2011: Grant money was used to hire additional teachers, create SAS positions (which are equivalent to instructional coaches in the EB model), and support staffing for before- and after-school programs.
 - Ongoing: Current staffing is adequate, but the special education staff members carry heavy caseloads. The number of administrators, secretaries, and core and elective teachers meets or slightly exceeds the recommendations of the EB model. The EB model would recommend more support staff (for example five guidance counselors, nine to 10 instructional aides) and more instructional coaches (six vs. the current two) for NHHS.

- Collaboration.
 - 2005-2011: Small learning community groups met regularly to plan and collaborate facilitated by a block schedule. This contributed to improved instruction and morale.

- Data-driven decision making.
 - 2005-2011: The Matrix program was a strong example of how data were used to guide instruction and grouping. Teachers received support for data analysis from the SAS teachers.
 - Ongoing: Data analysis support is provided during CFIP meetings. Teachers receive training in accessing and analyzing data.

- Professional development.
 - Under the previous district administration, there was more funding for professional development. Teachers were able to attend professional development sponsored by the district or by national educational organization, such as the AP and IB program. Teachers returned invigorated and equipped with strategies and ideas

While some features of the EB model are currently in place at North Hagerstown High, these features were more numerous and robust in past years. The rebuilding process is under way, although the level of resources the school received in the past does not appear to be available.