

**Panel Report**  
**Candidate Compass School Review**  
**Andover High School**  
**Andover Public Schools**

## **INTRODUCTION**

### **The Program**

The Commonwealth Compass Schools Program is one part of the Massachusetts School and District Accountability System. The purpose of the Compass Schools Program is to recognize and celebrate improvement in Massachusetts' schools, and to disseminate information and encourage networking and sharing of ideas, effective practices, and models for success. The program is intended to provide a means for the schools to share their expertise with other schools in the state.

In 2005, 197 schools that made Adequate Yearly Progress (AYP) during the last two years and exceeded their improvement targets for both English language arts (ELA) and mathematics in the aggregate and/or for all reported subgroups were invited to apply to the program. Eighty of those schools chose to apply by submitting completed applications. The applications provided written responses to three questions on the initiatives undertaken to improve student performance that school leaders and staff think have had the most positive impact on their students' performance. Six high schools, six elementary schools, one middle school, one kindergarten through grade 8, one grade 7 through 12 regional school, and one charter school were selected as finalists. Those 16 schools were scheduled for a panel review to learn more about their highlighted programs and to determine their willingness and capacity to serve in the program. Data and information gathered from the applications and reviews of these schools will be published in a report this fall.

The Commissioner will designate up to 16 schools to serve as 2005 Commonwealth Compass Schools. Compass Schools receive special recognition and a \$10,000 grant to support the participation of their administrators and staff in information sharing and dissemination activities over the next year.

### **The Report**

This report summarizes the findings and analyses of a small team of education professionals during a one-day visit to Andover High School on May 10, 2005. The report will assist the Commissioner in determining which schools from among those visited will be designated to serve as 2005 Commonwealth Compass Schools.

The panel evaluated data and written information on the school's performance and improvement efforts, including the school's Compass School application. Panelists then visited the school to meet with school leaders, staff, parents, and students, and to visit classrooms in order to answer the following two key questions:

1. Is this school using effective improvement initiatives that could be replicated in other similarly profiled schools?
2. Are the conditions in place for this school to serve as a model of effective practices and successful improvement initiatives?

The panel's responses to these two questions frame the report. In the process of answering these questions, the report focuses primarily on the initiatives that the school identified in its application as having had the most positive impact on student performance.

The findings and conclusions presented here are the products of analysis, discussion, and observation, and are based on the evidence made available to the panel before and during its visit. A list of panel members who participated in the school panel review is provided in Appendix A. A detailed schedule of the panel's activities is provided in Appendix B.

### **School Profile**

Andover High School (AHS), with a total enrollment of 1,731 students in grades 9 through 12, serves a student population that is 88% White, 8.1% Asian, 2.9% Hispanic, 0.9% Black, and 0.1% Native American. Of the total student population, 13.6% receive Special Education services, 8.1% are identified as having a First Language Not English, 2.5% are Low Income, and 1.1% are Limited English Proficient.

The school's 2004 student attendance rate was 94.2%, which matched the state average and was a 0.3% improvement over the school's attendance rate from the previous year. Its dropout rate as of September 12, 2003 was 1.3% — 2 percentage points lower than the state average. In 2003, 2.1% of the student population was retained, 3.4% received in-school suspensions, and 5.8% received out-of-school suspensions. These retention, dropout, and suspension rates are all lower than state averages for the same year.

The town of Andover has six public elementary schools, three middle schools, and one high school. As the sole public high school in the district, AHS competes for students with an in-town private academy. During the 2003-2004 school year, 85.8% of children in Andover attended public schools. In order to compete with private institutions and provide high-quality education to students, AHS offers AP courses, athletics and enrichment programs, internships, Independent Project options, and more, to prepare students for life after high school. At AHS, most students plan to attend college upon earning their high school diplomas. During the 2002-2003 school year, 51% of AHS students planned to attend four-year private colleges, 35% planned to enter four-year public institutions, and 6% planned on attending two-year public colleges. Two percent of students planned to enter the workforce upon graduating.

### **Staffing**

Andover High School is led by one principal who has a total of 13 years of teaching experience and 18 years of administrative experience, with five of those years spent at AHS. One of the school's two assistant principals is a six-year veteran of AHS, with eight years of teaching experience and two years spent as an administrator. The other has served for seven years as

assistant principal at the high school, having come from a teaching background. Four department chairs all have considerable administrative experience that was gained at Andover High School during the past three to eight years. With long tenures as teachers — one administrator, for example, has 32 years of teaching experience — these four department chairs understand teaching and have considerable content-area expertise.

The seven-person administrative team works with seven guidance counselors, six alternative/special education professionals, one school psychologist, and 124 teachers. Of the teachers, 50 have been at the school for three years or less, while 41 have spent ten or more years at AHS, with many teaching for well over two decades at the high school. Faculty tenure at Andover High School tends to be long.

Each member of the administrative team holds a master's degree. All six members of the guidance staff are certified as guidance counselors. All core academic teachers are identified as Highly Qualified; 100% of teachers are licensed in their teaching assignments; and 99% are reported as teaching in their core academic areas. The school's student-to-teacher ratio is 13.2:1, close to the state average of 13.3:1.

### **MCAS Results**

The school has made Adequate Yearly Progress for the past six years and attained Cycle III Performance Ratings of *Very High* in both English language arts (ELA) and mathematics, scoring 19.7 points above the State Performance Target in ELA and 34.1 points above the State Performance Target in math. The school achieved Performance Index (CPI) gains of 4.4 points in ELA and 6.7 points in mathematics for students in the aggregate. In Cycle III, the school made substantial gains for both of its reported subgroups (Special Education and White students), including a 20.1-point CPI gain for Special Education students.

The school had 100% participation on the 2004 Massachusetts Comprehensive Assessment System. On the 2004 Grade 10 ELA test, 33% of all students scored in the Advanced category; 50% scored Proficient; 16%, Needs Improvement; and 1%, Failing. On the 2004 Grade 10 math test, 57% scored Advanced; 27% scored Proficient; 14%, Needs Improvement; and 2%, Failing. Of the school's Regular Education students, 37% scored Advanced on the Grade 10 ELA test, while 64% scored Advanced in math; none of these students scored in the Failing range in ELA, and only 1% scored in that category on the math assessment.

Between 2001 and 2004 in both ELA and math, the percentage of all students scoring in the Advanced category on Grade 10 MCAS assessments increased, while the percentage scoring in Failing decreased until it leveled off in 2002 at 1% for ELA and in 2003 at 2% for math.

## PANEL RESPONSES TO THE KEY QUESTIONS

### **Key Question 1: Is this school using effective improvement initiatives that could be replicated in other similarly profiled schools?**

Yes. The panel review team identified several of the school's improvement initiatives as being both effective and replicable. Evidence of the effectiveness of Andover High School's improvement initiatives includes its student performance scores, the long tenure of many of its faculty members, and the satisfaction with the school that is voiced by students, parents, and other stakeholders.

The principal and others interviewed believe that the initiatives that have had the greatest positive effect on the school can be easily replicated. Three of the four initiatives cited below require no monetary expenditure. One initiative, staff development, requires district and school support if teachers are to benefit from paid tuition for outside classes and from a compensation ladder that truly acknowledges their efforts to add to their knowledge base. However, one piece of Andover High School's staff development initiative — a teacher-led PD component in which staff teach their peers — can be implemented at no cost.

With funding not an issue, and with the sharing in which Andover High School appears ready to engage, similarly profiled schools could learn how to replicate the key initiatives listed below.

#### **A. Which improvement initiatives have had the greatest positive impact on student performance results?**

Based on input from leadership, faculty, students, and parents, the panel determined that the improvement initiatives that have had the greatest positive impact on student achievement at Andover High School are as follows:

- ❖ **Staff development** that is personalized, often teacher-led, and supported by both the school and the district;
- ❖ **Program analysis and data analysis**, including annual (re-)alignment of curricula, that are part of the school's regular practice;
- ❖ A **two-tier teacher evaluation system** that involves traditional classroom evaluations for newer staff members and project-based evaluation options for veteran teachers; and
- ❖ **Block scheduling** as part of a semester system, which increases content coverage.

In its application, AHS noted several additional improvement initiatives, such as a Japanese Lesson Study program made available to interested staff members and Standards-Based (Integrated) Math classes for students. These recent initiatives, along with others, were of interest to the panel and were described with enthusiasm by many staff members and other interviewees. However, AHS's four overarching initiatives are at the center of virtually all other programs and improvement efforts. Program and data analysis, for example, prompted the establishment of the Standards-Based Math classes. Staff development included the Japanese

Lesson Study and much more, often teacher-led and shared across disciplines, resulting in improved instruction for students.

### *Staff Development*

In AHS's staff development program, faculty members identify training that would be of greatest benefit to them, and the district supports this training. Once faculty members receive the training, they share it with their colleagues through both formal and informal professional development. Knowledge is spread from teacher to teacher, making school and district investments go a long way. For example, one guidance counselor received training from The College Board in the new Scholastic Aptitude Test and then returned to AHS to run a course entitled, "The SAT and More." Similarly, the math program advisor and a special education teacher worked as members of the Massachusetts Assessment Development Committee and then provided portfolio assessment training to the AHS faculty. This staff-led professional development is a regular part of practice at Andover High School.

### *Program and Data Analysis*

With its small leadership team, AHS looks to teachers to analyze data on program effectiveness and student performance. A reduction in administrative staff resulted in teachers working more closely with data. Cross-department collaboration became the norm. All teachers carefully analyze student performance on end-of-course assessments and MCAS. This analysis allows them to target students who are at-risk and to provide those students with assistance. Data analysis also allows staff members to identify school-wide areas of weakness that can be remedied by course additions or changes and to evaluate the effectiveness of curriculum and programs. The curriculum is renewed yearly, and knowledge of student performance data drives this process. In addition, students themselves are often surveyed regarding their preferences for classes. The result is curriculum and instruction that focus not only on what students need, but also on what they want. At present, data analysis is so central a part of the work at Andover High School that even incoming students' scores will be reviewed so that the school can provide extra assistance to at-risk students during the summer prior to their grade 9 entry into AHS.

### *Two-Tier Teacher Evaluation*

New teachers at AHS are evaluated via a traditional system. Administrative staff members, typically department chairpersons, conduct walkthroughs of each classroom at least three times per year and provide feedback on the teaching that they observe. Veteran teachers, on the other hand, may elect to have a project-based evaluation that enables them to work on an approved project that will enhance their teaching. This alternate evaluation results in interesting products, including teaching tools and curriculum enhancements, which benefit departmental or whole-school staff. It also fosters cross-departmental collaboration, as staff often work on projects that link to common results. For instance, there is at least one example at AHS of a course addition that stemmed from the project-work of two staff members from different departments.

## *Block Scheduling*

Class blocks of 82 minutes allow Andover High School to operate on a semester system, acquainting students early on with a college-type model and enabling them to take double the number of courses that would be offered in a full-year system. Without the extended class block, there would be little chance of covering required course material in a half-year. With 82 minutes per period, however, each semester brings new courses, and the scheduling of those courses fosters achievement on key assessments. For example, students double up on science in freshman year and take two math courses as sophomores. By the time MCAS assessments are administered, these students have focused on more content, and school staff report that this is a benefit to them. In their later years at the school, many have covered sufficient material to take part in AP courses, the number of which increased at the school when block scheduling was instituted. Students report that the extended blocks, which result in four class periods per day, permit them to develop strong relationships with their teachers and to focus more extensively on subject matter. School leaders and teachers report that the 82-minute blocks result in improved pedagogy, as the longer timeframe requires teachers to use a variety of approaches in each class, balancing lecture with other teaching methods. For example, in a grade 10 lesson on DNA that was observed during the panel review, one teacher set the scene for the class's lesson through brief lecturing, using a computer presentation to accentuate the most important points, but then quickly engaged students in participating both orally and actively. Students added to the teacher's presentation by providing information they knew about DNA, and then worked in pairs to build three-dimensional models of DNA structure.

*Does the available data support the school's reported impact in the area intended?*

Research points to high-quality instruction that is enhanced by effective professional development, a commitment to using data to inform decisions about curriculum and planning, oversight that enhances staff performance, and time on task as factors that contribute to improved student achievement. These factors are embedded in Andover High School, due, in large part, to the initiatives just detailed. The value of these initiatives is reflected in AHS students' performance as measured by MCAS.

### **B. How did the school plan its improvement initiatives and put them into practice?**

Information gained through interviews and group discussions at Andover High School revealed that the school uses a "grassroots" approach to planning and implementing improvement initiatives: Needs are identified and ways to address those needs are considered by stakeholders at all levels—teachers, students, and administrators. Ideas are then shared with leadership, with colleagues in the same content areas, and with the school at large. Initiatives stemming from those ideas take hold. Data analysis of student performance results on MCAS, formative assessments, and end-of-course assessments takes place on a regular basis and is an embedded aspect of school practice. This analysis helps to highlight needs, while staff expertise addresses those needs with ideas related to curriculum, instruction, and professional development. For example, through MCAS item analysis, one English teacher at the school noted student weaknesses in poetry. The need for a poetry component in the English curriculum was shared with colleagues and school leaders. Poetry is now an integral part of English coursework at the

school, and students are the beneficiaries. The analysis of data also helps staff and leadership to monitor the success of initiatives and highlight programs that need refinement. The panel review team found evidence that this cyclical process of identifying needs, planning for improvement, implementing initiatives, monitoring progress, refining plans, and identifying new needs is undertaken by staff at all levels at Andover High School.

### *High Level of Teacher Involvement in the Planning and Implementation of Initiatives*

Teachers are highly involved in improvement planning and initiative-adoption decisions. The school's leaders, comprising a relatively thin administrative layer (seven people for a staff of more than 130) at the school, allow teachers to determine optimal plans for school improvement. The school's assistant principals serve as department advisors in addition to being responsible for administrative duties. The principal acts as advisor to two departments and teaches a leadership class. The school's administrative team is highly focused on the classroom. Therefore, the principal and assistant principals support teacher-generated ideas for improvement, as they know that the teachers in the school can assess their students' needs better than anyone else.

### *Deeply Embedded and Regularly Monitored Initiatives*

At present, the key initiatives that have helped Andover High School are deeply embedded in the fabric of the school. The effectiveness of the initiatives is monitored on an ongoing basis. New needs and opportunities are identified frequently, and new initiatives stem from them. One example of a new opportunity and an initiative that stemmed from it is a summer preparation program for some incoming freshmen. Because high school faculty are now able to review the scores of incoming students prior to their entry into Andover High School, students who have struggled in middle school will be offered summer prep classes prior to entering grade 9. This opportunity to identify students who need extra assistance prior to the start of high school classes is a new one, and AHS faculty have turned this opportunity into action.

The initiatives reported most frequently as being of greatest importance to the school, and as having the greatest impact on student performance, have been in place for several years and appear to have truly taken hold. Block scheduling, for example, was established in 1997. Members of a student focus group reported that they would not want anything other than the 82-minute block of instruction that they have known throughout their time at AHS. Reporting that this block allows them to get to know their teachers well, dig deeply into subject matter, cover a wide range of courses each year due to semester scheduling, and learn how to operate in a college-style format, students praised this initiative. The teacher-led staff development initiative is equally embedded and appreciated. One teacher reported that, when he entered AHS five years ago, he was trying to determine whether or not he wanted to change careers. He had taught for years in other schools, but it was not until he arrived at Andover High School that he truly felt part of a professional learning community and knew that teaching was his lifetime career. Sharing the way the science department gathers monthly to review the popular literature and discuss advances and topics of interest, this teacher noted that these collegial meetings keep the department current. He also noted that as part of the deeply embedded, two-tier evaluation process at the school, he is setting up a reference center on the school's local area network from

which other faculty members will be able to access useful teaching tools that he has developed for ninth-grade Environmental Science. The two-tier evaluation initiative allows him to enrich his own work and the work of others.

The school's key initiatives have been in place for several years. They are central to other initiatives that stem from them. For this reason, continual improvement and innovation are part of the school's culture.

**C. Does the school think these initiatives can be successfully used in similar schools? Why?**

Leadership and staff at Andover High School believe that the improvement initiatives that have benefited AHS students can be used successfully in similar schools because they can be implemented at no cost or at minimal cost and because they are simply part of good education practice. The principal, who teaches his own leadership course to students at the high school, contends that "good leadership can be taught and learned" (Principal Interview, May 10). He fosters leadership in the teaching staff, in the student body, and in the wider community beyond the walls of the school. He takes advantage of community partnerships such as AHS student internships in the science community. He believes that most of what has been done at Andover High School can be replicated in schools that are willing to share leadership.

**Key Question 2: Are the conditions in place for this school to serve as a model of effective practices and successful improvement initiatives?**

Yes. There is a shared understanding among leadership and faculty of the factors that have helped the school make steady improvements. Leadership, staff, and students readily share information about what has been a benefit to them and to the school as a whole. The AHS facility can easily accommodate site visits and meetings. For these reasons, the panel determined that the conditions are in place for Andover High School to serve as a model of effective practices and successful improvement initiatives.

**A. Do leadership and staff have a shared understanding and use a common language to describe the changes/initiatives that have led to improvements in teaching and learning?**

The schedule for the panelists' visit to Andover High School was set up by the principal and two program advisors (department heads). However, it was apparent that no coaching was done to prepare interviewees for what they might be asked. Most interviewees had not seen AHS's Commonwealth Compass School Application and had not been told of the particular initiatives that were highlighted in it. Therefore, virtually all interviews and group discussions were "off-the-cuff." With that said, and with the knowledge that the school is involved in countless improvement efforts, it is of great interest that the overarching initiatives were mentioned by virtually all interviewees.

**B. How effectively do leadership and staff articulate the connections between the specific changes and improvement initiatives they have implemented, and the gains made in student achievement?**

All four key initiatives are directly linked to student performance, and AHS leadership and staff refer all conversations about them back to student learning goals. Interviewees attribute student performance gains in mathematics to be largely due to the block-scheduling/semester system that results in students approaching the math MCAS with more content coverage behind them. Coupled with summer programs for at-risk students and school-year programs for others, most students are prepared to do well on the assessment. With a focus on aligning the school's curriculum to the Massachusetts Frameworks — a focus that began approximately seven years ago — Andover staff members believe that they are “teaching to expectations” (Teacher Focus Group, May 10). Ongoing staff development continues to increase these expectations. Teachers “go beyond what is expected” (Teacher Interview, May 10), and this is due, in part, to the professional learning opportunities with which they are provided.

**C. Is there a school-wide focus on, and sufficient staff investment in, continued improvement of student performance?**

Yes. The school is highly invested in continued improvement of student performance. There is a culture of excellence at the school that sparks the expansion of course offerings, that addresses the needs of all students through special programs, and that inspires staff and leadership to continually improve their knowledge and practice. Leadership and staff use data and their own expertise to identify areas of need and to address them. In addition, students have a voice at the school. When the Social Studies department sent out a survey to students to determine if there were any courses that they would like to take that were not being offered, teachers quickly prepared themselves to teach Economics, Media Literacy, Music & Society, and Contemporary World Issues classes — all student choices. These teachers invested time to educate themselves to teach a series of new course offerings to meet students' needs above and beyond the time spent in their weekly team meetings to revise the curriculum of two required classes. All of this has been done to ensure that students will be prepared to do well when performance on the MCAS history test becomes a requirement for graduation. This focus on continued improvement exists in all departments, and because school leadership has empowered the staff to innovate, programs and ways of addressing needs and serving students continue to improve. In an interview that was conducted during the panel review, one teacher noted that AHS staff are provided with a “tremendous opportunity... to offer suggestions [and] to have those suggestions valued” (Teacher Interview, May 10). All of AHS's overarching initiatives are characterized by teacher buy-in that is due, in part, to teachers being able to point to specific results — for example, new courses that have been added based on program and data analysis and teachers' suggestions — that have stemmed from those initiatives.

The district itself invests considerably in ongoing improvement of student performance. A district Curriculum Council aligns and refines course content, while a professional remuneration ladder for teachers acknowledges the importance of educational attainment by providing several steps for credits beyond the master's degree. District support enhances practice and contributes

to the existence of a professional learning community at Andover High School. Students are the beneficiaries.

**D. Does the school appear to have the capacity to host site visits and to participate in various activities to share effective strategies and practices with other schools in the state? Do the school leader and involved staff communicate effectively both orally and in writing how and why the school carried out its strategies for improvement?**

Leadership and faculty speak with openness and enthusiasm about what they do. Students' comments to panelists were inspiring. The school facility can easily accommodate visitors, and interviewees commented on the fact that site visits are an ideal way to get a sense of the culture and climate that have emerged from initiatives that have helped the school develop into a professional learning community. With experience teaching his own class on leadership, the principal is effective at communicating how an administrative staff of only seven can lead a large high school toward higher achievements.

Because everyone at the school is involved in improvement initiatives, work in preparing written materials and establishing activities for sharing effective strategies is spread across an entire school. With so much to share, some fine-tuning in terms of articulating the message about the four key strategies may need to be undertaken so that other schools will understand that these initiatives are at the root of virtually all other improvement efforts. There is strong school and district support for sharing insights with other professionals.

**E. Does the panel recommend that this school be designated to serve as a Commonwealth Compass School?**

Yes. The panel recommends that this school be designated to serve as a Commonwealth Compass School.

## **CONCLUSION**

Visitors to Andover High School are provided with information on effective initiatives. AHS's respect for these initiatives is genuine. The principal tends not to coach staff and students to provide scripted answers to visitors about the school's improvement efforts. Instead, he trusts that everyone is on the same page.

A major strength of the school is its ability to place improvement planning and implementation into the hands of staff and students. This shared leadership has enabled the four key initiatives to take hold. AHS's staff development, program and data analysis, two-tier teacher evaluation system, and block scheduling are at the root of all other improvement efforts. These key initiatives contribute to improved student performance on MCAS and other assessments, to staff retention that is largely due to the existence of a professional learning community, and to a positive school culture in which students have a voice, have good relationships with their teachers, and have rich selections of challenging courses to choose from.

The school, with leadership and staff having a common understanding of key initiatives, is eager to share ideas with similar schools. The panel recommends that Andover High School be provided the opportunity to do so through the Commonwealth Compass Schools Program.

## **Appendix A Team Members**

**Matthew Pakos**, Chair, School Performance Evaluation, Massachusetts Department of Education

**Eve Laubner, Ed.D.**, Writer, School Performance Evaluation, Massachusetts Department of Education

**Dianne Connolly**, Teacher, Haverhill Public Schools

**Erica Levy-Ringel**, School and District Improvement, Massachusetts Department of Education

## Appendix B Schedule of Site Visit

7:15—8:00 a.m. Panelists met to prepare for day in principal’s conference room.

8:00—8:30 a.m. Panelists met with the principal in principal’s conference room.

8:30—9:00 a.m. Panelists met with focus groups in library.

Panelist A	Panelist B	Panelist C	Panelist D Chair
Student Focus Group	Parent Focus Group	Leadership Team Focus Group	Teachers Who Deal with At-Risk Students

9:18—11:45 a.m. Panelists conducted classroom observations and teacher interviews.

	Panelist A	Panelist B	Panelist C	Panelist D
9:18-9:58	Observe Teacher 1.	Observe Teacher 3.	Observe Teacher 5.	Observe Teacher 7.
10:00-10:39	Observe Teacher 2.	Observe Teacher 4	Observe Teacher 6.	Observe Teacher 8.
10:45-11:15	Interview Teacher 1 individually.	Interview Teacher 3 individually.	Interview Teacher 5 individually.	Interview Teacher 7 individually.
11:15-11:45	Interview Teacher 2 individually.	Interview Teacher 4 individually.	Interview Teacher 6 individually.	Interview Teacher 8 individually.

11:45 a.m.—12:45 p.m.

Panelists met to discuss findings and to plan the remainder of the day.  
(Working Lunch)

12:45—1:15 p.m.

Panelists analyzed findings and gathered more information, preparing follow-up questions for the principal and other staff members.

1:15—2:15 p.m.

Panelists met with teachers in focus groups.

	Panelist A	Panelist B	Panelist C	Panelist D
1:15-1:45	Teacher Focus Group 1		Teacher Focus Group 3	
1:45-2:15	Teacher Focus Group 2		Teacher Focus Group 4	

2:15—2:30 p.m.

Chair met briefly with principal for exit meeting to outline next steps. Panelists organized and collated notes from focus groups.

2:30—5:00 p.m.

Panelists deliberated, documented evidence, and formed conclusion/recommendation.