

**Panel Report**  
**Candidate Compass School Review**  
**Framingham High School**  
**Framingham 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 AYP during the last two years and exceeded their improvement targets for both 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 willingness and capacity to serve in the program. Data and information gathered from the application and review processes 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 the Framingham 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; and 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 product 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**

Framingham High School is the only high school in the Framingham School District. There are nine elementary schools and three middle schools for a total of 13 schools in the district. Framingham High School serves students in grades 9 through 12, currently serving 2,073 students. Enrollment between 2002 and 2005 averaged 1,980 students. In 2005, 12% of the population was made up of Hispanic students (state average 12%), 73% White students (state average 74%), 9% Black students (state average 9%), and 6% Asian students (state average 5%). Nine percent of the student population is identified as Limited English Proficient (LEP) (state average 5%). Twenty-seven percent of the students at the Framingham High School have a primary language other than English (FLNE) (state average 14%). Twenty-one percent of their students are eligible to receive free or reduced price lunch (state average 28%), and 11% of the Framingham High School students are special education students (state average 16%). The school does not have a School-Wide Title I program.

Between 2001 and 2004, the attendance rate at Framingham High School increased from 90.7 in 2001 to 92.6 in 2004, for an average attendance rate of 92% (state average for 2004 was 94.2%). The average number of days absent declined from 16.7 in 2001 to 12.4 in 2004 (state average for 2004 was 10%).

From 2000 to 2003, the retention rate averaged 4.5% (2003 state average 2.6%), out-of-school suspensions averaged 3.8% (2003 state average 6.1%), and in-school suspensions averaged 8.7% (2003 state average 4.5%). The 2004 and 2005 data show that the retention rate was 3.3% (in 2002-03: district 1.2%, state average 2.6%), out-of-school suspensions was 1.6% (in 2002-03: district 3.8, state average 6.7%), and in-school suspensions was 3.7% (in 2002-03: district 3.8, state average 4.6%).

## Staffing

The instructional staff at Framingham High School includes 135 full time teachers. Additionally, there are a full time principal and 4 assistant principals that comprise the school's administrative staff. Also on staff are a bilingual education teacher, 13 department chairs, 6 guidance counselors, 2 librarians, 6 school-wide education teachers (2 of whom are school social workers), and 2 school psychologists. Many teachers are licensed in multiple areas. Seventy-one teachers have five or fewer years of teaching experience. Twenty teachers are not licensed, however all 19 math teachers are licensed in math. Four teachers' licensure is designated as "Other." Based upon the 2005 enrollment data and staffing report, the student teacher ratio is 2,073 students to 165 teachers or 12.6:1.

## MCAS Results

Students at Framingham High School are tested in the MCAS in grade 10 in English language arts (ELA) and math. In Cycle III (2003-2004) the school was found to have made Adequate Yearly Progress (AYP) in both ELA and mathematics. The Cycle III Composite Proficiency Index (CPI) for ELA is 89.1 and the Cycle III CPI for math is 88.6. The Cycle III Performance ratings for ELA and for math are both High. The Cycle III Improvement ratings for ELA and math are Above Target. FHS performed above the district CPI (84.7) in ELA and above the district CPI (71.1) in math. FHS also performed above the state ELA CPI target (75.6) and the state math target (60.8).

### *Student Performance in English Language Arts*

In Cycle III, Framingham High School received a performance rating of *High* for its Composite Proficiency Index (CPI) of 89.1 in ELA. Participation rates in the ELA Aggregate in Cycle III were 98% in 2003 and increased to 99% in 2004. Framingham High School's Mid-Cycle III AYP report shows a participation rate of 98% in the aggregate, a Composite Proficiency Index (CPI) of 88.6, a CD attainment of 91%, reflecting achievement of AYP and a CPI change of 8.9. The performance levels for Cycle III in ELA were: Aggregate 89.1, LEP 70.6, SPED 61.4, Low Income 73.9, African-American 84.2, Asian 84.7, Hispanic 72.6, White 91.9. In Cycle III, Framingham High School saw its students make gains in the proportions scoring at the Proficient levels of performance as well as a decline in the proportions scoring at the Warning level. In 2001, 21% of students scored at the Advanced level, 41% at Proficient, 28% at Needs Improvement and 10% scored at the Warning level. In 2002, 22% of students were Advanced, 48% Proficient, 20% in Needs Improvement, and 11% scored at the Warning level. In 2003, 30% of regular education students performed at the Advanced level, 43% were at Proficient, while 21% were at Needs Improvement and 6% were at Warning. In 2004, the percentage of students scoring in the Advanced category was 23%, the percentage of Proficient students rose to 50, 22% were in Needs Improvement, and 6% failed the ELA portion of the test.

### *Student Performance in Mathematics*

In Cycle III, Framingham High School received a performance rating of *High* for its Composite Performance Index (CPI) of 88.6 for its 12.4-point increase over Cycle II. The school's participation rates in the mathematics portion of the MCAS test in Cycle III were 98% in 2003 and 99% in 2004. Framingham High School's Mid-Cycle III report indicates a participation rate of 99% in the mathematics portion of the MCAS test and a CD Attainment rate of 93%. Their Composite Performance Index (CPI) rose to 88.6 in the aggregate, indicating a CPI change of 12.4. Specifically, the performance levels for Cycle III math were: Aggregate 88.6, LEP 79.4, SPED 59.4, Low Income 77.3, African-American 78.8, Asian 94.3, Hispanic 70.2, White 91.6.

In 2001, 28% of students performed at the Advanced level, 30% at Proficient, 29% at Needs Improvement, and 14% at Warning. In 2002, 30% of students were Advanced, 31% Proficient, 24% in Needs Improvement, and 16% Warning. In 2003, 41% of students performed at Advanced, 30% Proficient, 22% at Needs Improvement, and 7% scored at the Warning level. In 2004, the percentage of students scoring at the Advanced level increased to 46%, the percentage of students scoring at the Proficient level remained the same at 30%, Needs Improvement declined to 16% and 7% scored at the Warning level in the mathematics portion of the test.

In both ELA and math, Framingham High students continue to surpass both the district and the state averages.

### **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. Framingham High School's master schedule is designed to ensure time for structured, content-centered collaboration for all teachers within departmental teams twice a month. Along with a well-articulated curriculum, this culture of focused collaboration is extended to the classroom level in a co-teaching model that increased time and availability of teachers to address the needs of struggling learners (SPED, LEP, FLNE) in small, team-taught math classes, including integrated math courses, grades 9-12.

The way this collaboration time is scheduled planned, executed, and followed-up in departmental collaboration and within the teaching teams could serve as a model for any high school. This approach would be especially interesting to large high schools, with a diverse group of learners, working to personalize teaching and learning in order to build a community of learners and raise student achievement.

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

A careful review of school documents, data provided by the Department of Education, classroom observations, individual teacher interviews, and focus groups with teachers and parents corroborated the principal's outline of the specific components that have had the greatest impact on student performance.

The implementation of structured collaboration time into the master schedule for the development of vertically aligned curriculum maps, and a unified assessment system is augmented by other strategic elements. Key among them would be:

- Pairing of experienced and novice teachers in a mentoring program. A unique factor is that, whenever possible, the new teacher is assigned to share the mentor teacher's room, with different free periods to facilitate classroom observation. This paired scheduling of rooms helps the mentor provide immediate feedback and guidance to the new teacher.
- Scheduling new teacher meetings that provide content learning and teaching methodologies
- Scheduling of peer observations that provide all teachers with the opportunity to informally observe each other and then to offer constructive feedback

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

Yes. FHS has made significant gains in both ELA and math. The school's CPI in mathematics was increased 12.4 points in Cycle III (2003-2004), exceeding its improvement target of 4 by over 8 points. By 2004, 76% of all FHS tenth graders had reached proficiency. Forty-six percent of those were at the Advanced level.

In addition to overall improvement attributable to departmental collaboration and vertical mapping and alignment of curriculum, substantial improvement in each subgroup also strongly supports the school's assertion that instituting a co-teaching model (that paired two content specific teachers instead of pairing one content area teacher and a SPED teacher) for at risk and special needs students has been a key factor in their overall improvement. Thirty-six percent of the tenth graders tested who have special needs scored at the Proficient level or above in 2004, up from 18% in 2001. Thirty-eight percent of the Limited English Proficient students scored Proficient or above, up from 25% in 2001.

The link between increased student achievement and co-teaching is strengthened by data provided by the math chair comparing these classes with other classes. Three of the four co-taught algebra I classes scored above average. When taking into account all the algebra I classes, (8 classes in total), one could state that of the 8 algebra I classes at FHS, 3 of the 4 co-taught classes were found to score above average on the CPS mid-year exam 04-05. Two of the four regularly taught algebra I classes were found to score above average on the CPS mid-year exam 04-05. Therefore, a higher percent of the co-taught algebra I students scored above average than the algebra I students in the regularly taught classes.

There are 168 students at the high school currently taking AP math courses. The school provided data showing that 97% of the students taking the AP math 100 course, scored 3 or above, and 82% scored 4 or above. FHS was recently asked to participate in a presentation on their success with enrolling so many of their students in AP courses, given the diverse learning needs of their 2,000 students.

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

*1. How was the decision made to adopt the key initiatives?* Seven years ago, the FHS principal brought the concept of team teaching with him from a previous school. Five years ago, the administrative team conducted extensive research of schools that were able to satisfy time on learning requirements while remaining able to extend collaborative opportunities to their staff during the school day. The selected model extended a full service of educational opportunities to the students and allowed the majority of the staff to focus efforts on the improvement of learning in the classroom.

Faced with a shortage of qualified SPED teachers with math knowledge, and decreasing enrollment, the principal decided to team two strong content knowledge teachers together, rather than the usual model of co-teach (one SPED and one content area teacher in each classroom). FHS adapted an inclusion model of having two mainstreamed teachers from the same content areas work to co-develop, plan and deliver lessons. The administrative teams were able to recruit stronger educators from the common mainstream areas rather than from special education. Pairing teachers who possessed optimal teaching “chemistry” provided clearer expectations and training, and provided a co-planning period that was built into the master schedule to support this inclusive model.

Second, a summer workshop for department chairs was held with the purpose of clarifying the expectations and the preparation needed for effective collaborative sessions throughout the year. Department chairs were expected to submit written agendas in advance and summative evaluations after the sessions. The department chairs and the administrative team cooperatively developed an annual schedule that allowed departments to meet a minimum of once a month. The time for the collaboration meetings was gained through the elimination of monthly faculty and department meeting times. It should be noted that collaboration is exclusive of regularly scheduled full and half in-service days, as well as after school meetings. Communication on administrative matters is accomplished through weekly newsletters and emails from the principal and the math chair. The rotating schedule allowed FHS to vary the period affected by common planning time or “collaboration time.” Each department meeting time was a scheduled professional development that focused on content (math, ELA), improving and enhancing teacher training and support, and improving instruction. The schedule was created to accommodate all of the collaboration activities and encouraged the key joint activities described below:

- Peer observations
- Mentor program
- Team teaching

- Hand scheduling of students
- Master schedule development
- Memo/agendas for collaboration meetings
- Content centered/structured discussions
- Instructional workshops

Most students are fully included in the regular education classroom and SPED students are supported using a consultation model. The SPED teachers have a student load of twenty to twenty-five students. Each SPED teacher provides the regular education teacher with the appropriate accommodations according to the IEP for each SPED student. The SPED teacher also provides support to each SPED student. The support is provided in a weekly class with the purpose of working on the student's class work, study skills, and life skills. The study skills curriculum focuses on guided study using Landmark and the use of the Franklin Planner. Students are assigned to homeroom advisor classes that have extended time to discuss "talking points." The advisor classes result in the development of a common language among students, faculty, and administration. All ninth grade students participate in life skills classes that use The 7 Habits for Highly Effective Teens by Stephen Covey as the curriculum. In math, students are included primarily in integrated math classes, which combine algebra, geometry and systems thinking. The result has been not only gains in student achievement for all students in math, but also for all students in ELA.

2. *Who was involved in the process?* The administrative team conducted the research, using Stevenson High in Lincolnshire, Illinois, as a model. The model was adapted to suit them, and then the department chairs and administrative team cooperatively developed an annual schedule to enable common planning time for departments. The rotating schedule allowed them to vary the period effected by collaboration.

3. *What was the sequence of events and timeframe for the process?* In 2001, the principal and department heads scheduled the team teaching of classes. A mentoring program was initiated where department heads paired content-like experienced teachers with new teachers. A collaborative model of planning time was initiated and is the professional development tool of choice in all departments. In mathematics, the department chair embraced the collaboration model, scheduling the meetings on a rotational basis once every seven days and planning the agendas so that the teachers would be studying math during that time. Professional development in the content area (math) is the focus of each meeting.

4. *Where, at what stage, of implementation is the program now?* Based on materials reviewed by the panel during the visit, as well as interviews with all of the department heads, the collaborative culture appears to be having a positive impact throughout the school. Substantial improvement has been demonstrated in English language arts as well as in mathematics. The school is also in the process of moving toward more interdisciplinary teacher collaboration and coursework. The panel's observations and inquiry focused primarily on mathematics, where collaboration and co-teaching are fully operational, with their effectiveness demonstrated by significant progress toward proficiency for all of their students.

Every seven days, the math department schedules collaborative meetings to discuss math content and instruction. Teachers are scheduled to observe other teachers. Experienced math teachers mentor new math teachers. The new teachers are assigned to teach in their mentor's classroom. Two math teachers co-teach in one inclusion classroom. Four of the eight algebra I math classes are co-taught and two of the six geometry classes are co-taught. SPED and ELL students are included in co-taught algebra I and geometry classes.

5. *How does the school monitor the effectiveness of the key initiatives?* The math department uses collaboration time to develop a unified assessment program that includes midterms and end of chapter exams, explore data as a department to identify questions missed, and use software for tracking student data. In some math classes students keep math notebooks. In co-taught math classes, teachers also report using alternate assessments, such as writing and the products of in-class group work, to gauge student progress.

6. *What are the next steps for sustaining, expanding, or refining the program/practice?* The highlighted programs in the math department are considered part of the standard practice and culture. Feedback from the department chairs and individual teachers has demonstrated significant professional growth and improved collegiality.

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

Yes. Teachers described these practices as transferable. The principal, who learned about these initiatives from another school, also agrees that other schools could come in and learn about collaboration and co-teaching from the math team teachers.

School administrators reluctant to wrestle with the complexities of scheduling and coverage for such a large number of students could learn from the school's practical solutions to these challenges. During the collaboration times, students are scheduled in the academic development center (student tutoring), library, computer lab, the wellness center, and the gymnasium. This time has proved optimal for guidance and support services to access individuals and groups of students without having to pull them out of scheduled classes. The administrative team, librarians, and permanent substitutes are constantly observing activities during the collaboration sessions.

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

Yes. The conditions are in place at Framingham High School for the school to serve as a model site for the effective practices and successful improvement initiatives already described above. In mathematics especially, the school offers a model for a coherent instructional program, grounded in standards-based curriculum. Visitors to school will learn about how the school uses teams of two certified teachers sharing responsibility for delivering a high level of individualized

instruction in inclusive classrooms within a school culture of high standards and regular collaboration focused on content and instructional strategies.

While the collaborative culture at this large urban high school provides some of the best features of a smaller learning community — relationship, relevance and rigor — those “communities” are still largely department-oriented, with slightly different processes and procedures in operation within each content area/department. Some work could be done to develop coherent and concrete materials describing these elements and showing how they fit together with other components of the school’s strong instructional program in mathematics.

**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?**

In the documentation provided to the panel and interviews with administrators and teachers, the panel heard consistently that the key to the improvements they have made was the professional and continuous learning culture that allowed for ongoing teacher collaboration and focused on improving teaching and learning.

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

While the panel found a clear consensus among the staff that the collaboration time and a supportive environment play a key role in their improvements, not all staff were able to fully articulate a link between the specific elements of their collaboration and specific areas of improvement. This appeared to be simply a matter of preparing a coherent and systematic presentation of these elements for interested educators outside the school.

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

Yes. Expectations for students are high. In classroom observations, higher-level thinking skills were observed in many classes. Teachers, and in particular the math department chair, speak of improvement in terms of increasing the numbers of students taking AP classes and their desire to increase involvement in AP classes rather than passing MCAS tests. A life skills class scheduled for all freshmen during the student induction program focuses on Covey’s 7 Habits of Highly Effective Teens and the Franklin planner. There is a common language for behavior.

The Math chair is currently involved with the middle school to work on further vertical articulation of the math curriculum from grades 7 through 12. Standard tools used in classrooms included graphic organizers and the effective use of graphing calculators. Adult and student peer tutors (100 strong) were available to provide instruction during the school day. Students provided one on one or small group support at the tutoring sessions. The tutors are trained and managed by a full-time trainer.

Any student who expresses an interest can be scheduled to report to a specific teacher as a teacher's aide to provide additional support for teachers.

**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?**

While the panel believes a team from the school would have much to share with other similar high schools, members agreed that the school could better organize and focus the presentation of their success with some practical, concrete explanatory materials and data to clearly link the success of the co-teaching and inclusion model with the success of all students. Development of these materials would be supported by the Compass School grant and will provide schools with a guide to help adapt the practices to their own needs.

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

Yes, the panel agrees that Framingham High School could offer similar schools guidance for establishing a professional culture built on teacher collaboration on curriculum and instruction. Framingham's professional culture provides context and support for the delivery of mathematics instruction to struggling students who arrive in high school with limited math skills and special learning needs by teams of two teachers, both strong in content knowledge.

There are also several other components that enhance teaching and learning at Framingham High School that the panel was unable to pursue in great detail during the onsite visit, but which bear further inquiry, including the mentoring program, peer student teaching, and peer teacher observations.

## **CONCLUSION**

The panel found ample evidence of the strong collaborative culture that Framingham High School credits for its significant improvements in student performance over the last few years. Regularly scheduled, structured collaboration time, co-teaching, the mentor program for new teachers, ongoing sharing of effective activities and lessons, and a mechanism for all teachers to observe their peers' classrooms bear replication.

Any or all of the specific elements of collaboration that have strengthened the instructional program and continue to fortify a collegial professional culture at this large urban high school could be replicated in similarly profiled schools and adapted in a broad range of other schools.

## **Appendix A Panel Members**

**Denise Delorey, Ph.D.**, Chair, School Performance Evaluation, MA Department of Education

**Deborah Juusela, Ed.D.**, Writer, School and District Improvement and Support, MA  
Department of Education

**Davida Fox Melanson**, Consultant

**Stafford Peat**, Director of Secondary Education Services, MA Department of Education

## Appendix B Candidate Compass School Panel Review Schedule

**All activities take place at the school.**

*7:15—8:00 a.m.* Panel meets to prepare for the day.

*8:00—8:30 a.m.* Panelists meet with the principal.

*8:30—9:00 a.m.* Panelists meet with focus groups.

Panelist A	Panelist B	Panelist C	Panelist D Chair
Student Focus Group	Parent Focus Group	Coaches Focus Group	ILT Focus Group

*9:00—11:00 a.m.* Classroom observations and teacher interviews\*

	Panelist A	Panelist B	Panelist C	Panelist D
9-10 a.m.	Observe teacher 1 and teacher 2	Observe teacher 3 and teacher 4	Observe teacher 5 and teacher 6	Observe teacher 7 and teacher 8
10-11 a.m.	Interview teacher 1 and teacher 2 individually	Interview teacher 3 and teacher 4 individually	Interview teacher 5 and teacher 6 individually	Interview teacher 7 and teacher 8 individually

*11 a.m.—12:30 p.m.* Panelists meet to discuss findings so far and to plan the remainder of the day (working lunch).

*12:30—1:00 p.m.* Panelists use time as needed to analyze findings and to gather more information.

*1:00—2:00 p.m.* Panelists meet with teachers in focus groups.\*

	Panelist A	Panelist B	Panelist C	Panelist D
1:00-1:30	Teacher Focus Group 1		Teacher Focus Group 3	
1:30-2:00	Teacher Focus Group 2		Teacher Focus Group 4	

*2:15—2:30 p.m.* Chair meets briefly with principal for exit meeting to outline next steps. Panelists organize and collate notes from focus groups.

*2:30—5 p.m.* Panelists deliberate, document evidence, and form conclusion/recommendation.