

ASCD

SCHOOL DISTRICT OF SOUTH ORANGE AND MAPLEWOOD

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TO: Peter P. Horoschak, Superintendent
FROM: Jim
RE: Budget Analysis – Secondary School Class Size
DATE: December 6, 2006

At your request, the following analysis has been completed in order to explore the potential impact/savings of changes to average class size for regular academic sections at Columbia High School and the impact/savings of changes affecting the full range of smaller sections, including supplemental math and language arts classes, special education classes, classes in the alternative program, honors classes, Advanced Placement classes, and undersubscribed elective courses. At the end of this analysis, I have also included some information regarding the class sizes at the two middle schools.

Identification of Need

Maintaining the present class size policy at Columbia High School is of major importance to teachers, administrators, and the parent community. The present class size policy allows for supplemental classes, special education classes, classes in the alternative program, and English as a Second Language classes to have a smaller enrollment than other class offerings. Some honors classes, Advance Placement classes, and other electives are under subscribed, but are important components of the curriculum for the departments that offer these classes. There is a desire to preserve the elective offerings at Columbia High School to meet the scheduling needs of students and increase student access to high-level classes.

Resources Provided by the District

Is the staff fully scheduled?

Yes. A full schedule for a CHS teacher includes five classes, lunch, one full year of duty, and a minimum of 200 minutes of preparation time per week. All teachers are fully scheduled with the exception of:

- ◆ Several part time teachers or teachers who are combination teacher/aide; and
- ◆ Three teachers who have a reduced teaching load because of other assigned duties or contractual stipulations.

The present CHS schedule results in teachers having more than the contractual amount of preparation time per week.

How many classes have an enrollment of 28 students or more, and what are they?

- ◆ There are 58 physical education classes, 7 health education classes, and 7 driver's education classes scheduled during semester 1 that have an enrollment of 28 students or more. Semester 2 is not yet fully scheduled.
- ◆ Music performance classes with an enrollment of 28 students or more are:

Title	Enrollment
Orchestra	31
Chamber Choir – Honors	42
Concert Band	33
Wind Ensemble – Honors	39
Symphonic Band	44

Table 1 reflects the number of classes in other disciplines that have an enrollment of 28 students or more.

Table 1

Number of Classes with an Enrollment of 28 or More

	28	29	30	31	Total
Science	8	4	2		14
Social Studies	4	4			8
English	1	2			3
Math	2	2	3		7
World Languages	3	1		1	5
Media & Technology				1	1
TOTAL	18	13	5	2	38

Table 2 reflects the course title, level, and enrollment of each class reflected in **Table 1** with an enrollment of 28 students or more.

Table 2

Classes with an Enrollment of 28 or More

Course Title	Level	Enrollment
French 3 - HN	4	28
Spanish 2	3	28
Spanish 4 – HN	4	28
Algebra 2 – Adv	5	28
Geometry – HN	4	28
English 1 – HN	4	28
Sociology	3-4	28
US History 2 – HN	4	28
US History 2 – AP	6	28
US History 1 – AP	6	28
Physics – HN	4	28
Physics – Adv	5	28
Physics – HN	4	28
Chemistry – HN	4	28
Chemistry – HN	4	28
Biology	3	28
Biology – HN	4	28
Biology – AP	6	28
French 3 – HN	4	29
Geometry – HN	4	29
Algebra 2 – HN	4	29
Literature of Social Criticism	3-4	29
Contemporary Literature	3-4	29
World History 2 – HN	4	29
World History 2 – HN	4	29
World History 2	3	29
US History 2 – HN	4	29
Physics – HN	4	29
Physics –Adv	5	29
Chemistry – HN	4	29
Chemistry – Adv	5	29
Environmental Science – AP	6	30
Chemistry – HN	4	30
Pre-Calculus – HN	4	30
Pre-Calculus – HN	4	30
Algebra 2 – Adv	5	30
Spanish 4 – HN	4	31
CHS News 1 and 2	4	31

Adv – Advanced

HN – Honors

AP – Advanced Placement

How many classes have a total enrollment that falls within the range of 15-21 and 22-27?

- ◆ There is a total of 203 classes in art, career and technical education, media and technology, English, math, science, social studies, and world languages with an enrollment that falls within the range of 15-21.
- ◆ There is a total of 212 classes in art, career and technical education, media and technology, English, math, science, social studies, and world languages with an enrollment that falls within the range of 22-27.

How many classes have an enrollment of less than 15 students, and what are they?

According to BOE Policy #2312, class size for English/Social Studies for the Foreign Born (ESL), Supplemental (remedial), Special Services, and the Alternative Program are permitted to fall below the established minimum limit.

- ◆ There are seven ESL classes offered with an enrollment of less than 15.
- ◆ There are 24 semester 1 and full year supplemental classes offered by the Mathematics Department. Semester 2 classes are yet to be determined (TBD). **Table 3** reflects the number of classes of supplemental math at each grade level and the average enrollment for those classes.

Table 3

Supplemental Math Classes

Grade Level	# of Classes (Average Enrollment)		
	Semester 1	Semester 2	Full Year
10	3 (12)	(TBD)	
11			15 (12)
12	6 (12)	(TBD)	

- ◆ There are 16 semester 1 and full year supplemental classes offered by the English Department and five semester 1 Study Skills classes staffed by the English Department. Semester 2 classes are yet to be determined (TBD). **Table 4** reflects the number of classes of supplemental English at each grade level and the average enrollment for those classes as well as the Study Skills classes.

Table 4

Supplemental English Classes

Grade Level	# of Classes (Average Enrollment)		
	Semester 1	Semester 2	Full Year
10	4 (11)	(TBD)	
11			9 (9)
12	3 (14)	(TBD)	

Study Skills Classes

Grade Level	# of Classes (Average Enrollment)		
	Semester 1	Semester 2	Full Year
9	5 (17)	(TBD)	

- ◆ There are 81 teacher assigned special education sections. Thirty-one of these teacher sections are dedicated to in-class support to regular education teachers who have the primary responsibility for providing instruction. By regulation, in-class support classes may have no more than 9 students. There is no legal limit on the number of regular education students who may be in the room, but our practice is to keep these classes small.

The remaining 50 sections are stand-alone special education classes with enrollments of less than 15 students. **Table 5** reflects the number of special education stand-alone special education classes by enrollment. Please note that instructional aides must be provided to all replacement classes with an enrollment in excess of 9 students but no more than 12 students. Aides are also assigned to all sections of the self-contained classes for students with behavior disturbance disabilities.

Table 5

Special Education Classes

Student Enrollment	Number of Sections
2	1
3	1
4	4
5	4
6	3
7	10
8	7
9	8
10	2
11	6
12	4

- ◆ The equivalent of 4.9 FTEs is dedicated to the Alternative Program at Montrose: 1.0 English, 1.0 Math, 1.0 Science, 1.0 Social Studies, 0.2 Spanish, 0.2 Guidance, 0.1 Art, and 0.4 PE. Presently the student enrollment at Montrose is 46.
- ◆ A singleton is a course that has only one section offered across the entire schedule. **Table 6** reflects the number of full year and semester 1 singletons by disciplines that have an enrollment of less than 15 students.

Table 6

Number of Singletons with an Enrollment of Less than 15

	14	13	12	11	10	9	8	7	6	5	4	3	Total
World Languages							1		1	3			5
Science			1										1
Art		1	1										2
Math			1		2	1		1	1				6
English		1								1			2
Career and Technical Education		1											1
Music		1											1
Physical Education							1						1
Social Studies					1								1
TOTAL		4	3		3	1	2	1	2	4			20

Table 7 reflects the course title, level, and enrollment of each class reflected in **Table 6** with an enrollment of less than 15 students.

Table 7
Singletons with an Enrollment of Less than 15 Students.

Course Title	Level	Enrollment
*Japanese 1 –HN	4	5
*Japanese 2 – HN	4	5
Spanish Literature AP	6	8
Latin 3	3	6
Latin 4 – HN	4	5
Physics 2 – HN	4	12 (Sem. 1)
World History 2	2	10
Computer Science AP	6	7
**Crafts 2		12
Art 3		13
Chamber Orchestra – HN	4	13
Algebra 2/Trig	2	12
Calculus III	5	10 (Sem. 1)
Basic 1	3	6 (Sem. 1)
Basic 1	4	10
Advanced Topics in Mathematics	5	9
American Literature	2	5
Creative Writing & Study of Literature	2	13
Architectural Model Building		13 (Sem. 1)
Scuba Diving		8

HN – Honors

AP – Advanced Placement

***Japanese is a distance-learning course delivered via satellite. A world language teacher is assigned to this class as a duty, in addition to his/her five assigned classes.**

****Crafts 1 is a prerequisite for crafts 2**

Considerations/Options

- ◆ There are 115 classes that have an enrollment of 28 or more. These include 58 PE classes, 7 health classes, 7 driver's education classes, 14 science classes, 8 social studies classes, 3 English classes, 7 mathematics class, 5 world languages classes, 1 media and technology class, and 5 music classes.
- ◆ There are 20 singletons with an enrollment of less than 15. These include 5 world language classes, 1 science class, 2 art classes, 6 mathematics classes, 2 English classes, 1 career and technical education class, 1 music class, 1 social studies class, and 1 physical education class.
- ◆ All other classes that have an enrollment of less than 15 (50 Special Education classes, 7 ESL classes, 40 supplemental classes, classes at the Montrose campus) are permitted by Board of Education Policy or are subject to State regulation.
- ◆ Savings in FTEs could be achieved by eliminating classes with an enrollment of less than 15, which are not compatible with Board of Education Policy. However, 50% of these classes are honors or advanced placement classes, and the other 50% are either level 2 classes where an attempt is made to maintain small class size or represent other offerings elected by students. Eliminating any of these classes would limit the number of elective offerings and high-level classes.

Middle School Class Size Information

Are the staffs fully scheduled at the middle schools?

Yes. A full schedule for a middle school teacher includes five classes, a 30-minute mid-day student contact activity or duty, a 30-minute lunch and a minimum of 215 minutes of preparation time per week. All teachers are fully scheduled with the exception of one world language teacher who teaches 4 classes but needs to travel between the two middle schools twice each day.

How many/What are the classes that have an enrollment of 26 students or more at each middle school?

Tables 1 and 2 reflect the number of classes in each middle school that have an enrollment of 26 students or more. Classes that are held as large group courses are not reflected in this table (e.g. band, chorus, physical education classes).

Table 1

Maplewood Middle School

	26	27	28	29	30	31	Total
Language Arts	1	3	1	1	1		7
Math	1	2					3
Science	4		1	1	1		7
Social Studies	4		1	1	1		7
Spanish	2	3	1				6
Health		1					1
Reading/Writing Seminar	1						1
TOTAL	13	9	4	3	3		32

Table 2

South Orange Middle School

	26	27	28	29	30	31	Total
Language Arts	2	1		1		1	5
Math	1		2	1	1		5
Science	2	1	1	3			7
Social Studies	1	2	1	2			6
Spanish	3	2					5
Reading/Writing Seminar			1				1
TOTAL	9	6	5	7	1	1	29

How many/What are the classes that have an enrollment of less than 15 students at each middle school?

Tables 3 and 4 reflect the number of classes at each middle school that have an enrollment of less than 15 students. Special Education, Project Ahead, and reading/writing seminar classes are not included in these totals since some students do not attend these classes every day. Many of the classes that have single digit enrollments are the grade 6 transition classes.

Table 3

Maplewood Middle School

	3	4	5	6	7	8	9	10	11	12	13	14	Total
Language Arts				1	1	2					1	2	7
Math				1	1	5			2		2		11
Science				1	1	1			1			1	5
Social Studies				1	1	1		1				2	6
Art								2		2		10	14
Music								1		1		5	7
French							1						1
Spanish								1		1			2
Home Economics								1		1		5	7
TOTAL				4	4	9	1	6	3	5	3	25	60

Table 4

South Orange Middle School

	4	5	6	7	8	9	10	11	12	13	14	Total
Language Arts				2	1	1		1	1		4	10
Math			1		1	4			1		3	10
Science				1	1	1		1		1	1	6
Social Studies			1		1			1	1	3	2	9
Art									2	6		8
Music									1	3		4
Spanish	1		1					1		1	2	6
Home Ec.									1	3		4
TOTAL	1		3	3	4	6		4	7	17	12	57