

**GREENWICH PUBLIC SCHOOLS  
MONITORING REPORT  
GRADUATION REQUIREMENTS (E-004)  
JANUARY 2007**

I hereby present my monitoring report on the District Ends Policy “Graduation Requirements.” I certify compliance and that the information contained in this report is accurate.

Signed: \_\_\_\_\_  
(Betty J. Sternberg, Superintendent of Schools)

Date: \_\_\_\_\_

**BROADEST POLICY PROVISION**

*The District shall provide that requirements are met to qualify for graduation from the District.*

**EXECUTIVE SUMMARY**

In order to receive a Greenwich High School diploma, students must earn a minimum number of credits distributed across the academic disciplines and demonstrate competency in reading, writing and quantitative problem-solving. This policy requires the Superintendent to certify that the requirements to graduate from high school are rigorous, aligned with State statute, and met by all graduates.

Accomplishments include full compliance with the policy, the increasing rigor of the academic program completed by students at Greenwich High School, and some evidence that gaps in achievement among student subgroups are closing. While there were no major exceptions to any policy provision, there are a number of governance and management issues which require further attention. Governance issues include the potential need to reallocate staffing resources to the high school to maintain optimum class size. The Board of Education may also want to consider establishing in policy benchmarks for increasing the rigor of the academic program completed by Greenwich High School students past the minimum credit requirements. Management issues focus on the administration’s short and long term priorities including closing gaps in achievement among student subgroups and reducing the number of students who are demonstrating competency in reading, writing and quantitative problem solving through a performance portfolio rather than the Connecticut Academic Performance Test.

**ACCOMPLISHMENTS**

1. **Credit Requirements.** Over the last six years, 100% of Greenwich High School Graduates met the minimum credit requirements set forth in Board of Education policy.
2. **Academic Rigor.** As part of the Graduating Class Report (ED540), the State Department of Education requires all high schools in Connecticut to report the percentage of seniors who exceed the minimum graduation requirements set forth in state statute. While this data goes beyond the provisions of the graduation requirement policy, it is important to consider given

the district strategic direction to maximize achievement for all students and close gaps in achievement among subgroups of students. The table below summarizes this data for the last six years (data disaggregated by race and gender is attached):

Greenwich High School  
Graduating Class Report (ED540)

Graduates Receiving Credit	2000	2001	2002	2003	2004	2005	2006
Seniors Meeting Credit Requirement	471	469	472	533	565	555	625
Algebra I or Equivalent	86%	83%	91%	95%	86%	91%	88%
Mathematics (4 or more credits)	54%	48%	58%	63%	61%	56%	63%
Science (3 or more credits)	79%	76%	80%	83%	81%	80%	84%
Chemistry	97%	87%	85%	87%	89%	88%	93%
World Language (3 or more credits)	65%	68%	74%	77%	76%	75%	78%
Social Studies (4 or more credits)	34%	35%	47%	44%	54%	51%	47%
Vocational Education (2 credits)	18%	22%	25%	14%	25%	21%	24%
The Arts (2 or more credits)	45%	45%	42%	51%	49%	50%	45%
College Courses (1 or more AP)	27%	37%	39%	44%	44%	48%	50%

The percentage of students earning four or more credits in mathematics, three or more credits in science, three or more credits in world language, and one or more credits in advanced placement courses reached seven year highs with the graduating class of 2006.

3. **Closing Gaps in Achievement.** The percentage of Hispanic students earning one or more credits in advanced placement courses increased from 13% in 2000 to 43% in 2006.
4. **Demonstrating Academic Competency.** All students who earned sufficient credits to graduate demonstrated competency in reading, writing and quantitative problem solving by scoring at the proficient level or higher on the Connecticut Academic Performance Test or successfully completing the portfolio process.

## GOVERNANCE ISSUES

1. While the policy stipulates the requirements to graduate from Greenwich High School, it does not address the issue of students who do not successfully complete these requirements and leave school (drop-out) or the obligations of the District to these students.
2. Data on students who exceed the minimum credit requirements for graduation reveal gaps among student subgroups. Are the graduation requirements as stated in the policy sufficiently rigorous to ensure a high quality education for all students? Is there sufficient latitude within these requirements to address the needs of all students?
3. There is some evidence that the phased increase in credits required to graduate over the last two years resulted in students taking more courses during their junior and senior years. This issue was raised during the budget development process for 2007-2008, and the staffing allocation formula for the high school was adjusted to accommodate increased demand. The

Board of Education and the administration need to monitor this situation as subsequent budgets are developed to ensure that optimum class size is maintained at Greenwich High School.

4. When the Board of Education originally drafted this policy, the District was transitioning to a revised set of graduation requirements. Consequently, the policy specifies different requirements for the graduating classes of 2005, 2006 and 2007. The language specifying the phrasing of the revised requirements may now be deleted from the policy.
5. Many Greenwich youngsters come to the high school with a high degree of knowledge and skills. The Board should consider in its charge to the Committee examining secondary education to consider ways to “credit” students who demonstrate knowledge and skills that are part of the graduation requirements.

## **MANAGEMENT ISSUES**

1. Twelve percent of the graduating class of 2006 did not complete a mathematics course at the level of Algebra I or higher. Students who do not complete Algebra I may meet the minimum credit requirements to graduate but will not be prepared to achieve proficiency in mathematics on the Connecticut Academic Performance Test. In the short term, the high school is addressing this concern by re-vamping the remedial level sequence. All Math Applications courses have been eliminated and replaced with two courses, Bridge to Algebra and Extended Algebra. Eventually, the change in the middle school math sequence which makes Algebra 1 the standard eighth grade math course will better prepare students to access a rigorous mathematics program on the high school level.
2. The increase in the science graduation requirement from two to three credits will impact approximately fifteen to twenty per cent of the student population starting with the graduating class of 2007. Over the last seven years, the percentage of students who completed three or more years of science increased from 79% in 2000 to 84% in 2006. A three year sequence of science courses is in place for lower performing students (Practical Biology, Practical Chemistry and Practical Physics). Some sections of these courses use the collaborative teaching model where the regular education teacher is joined by a special education teacher. Also, ESL courses are offered to assist students whose English is limited. To assist all students, science learning centers are scheduled throughout the day where science teachers are able to provide students with extra help. Procedurally, high school guidance counselors are closely monitoring student transcripts to ensure all students are taking the proper number of science credits.

Superintendent’s note: Given the gravity of the low-performance of students already taking science courses, combined with this additional requirement for all students, I have asked that the science department meet with the Supervisor of Science to develop a plan to significantly improve the outcomes for students in this area.

3. There are continuing disparities by race in the percentage of students enrolled in a rigorous academic program (see attached). Black and Hispanic students are less likely than their Asian or White peers to take four years of math, three or more years of science, three years of the same foreign language, four years of social studies or college level courses. This year, through re-allocation of staff and budget resources, the high school expanded the very successful ABC peer mentoring program to the entire school. We are seeking to further expand this program into the summer through a grant application to the Greenwich Alliance.

Superintendent's note: This is the first year that a high school improvement team is meeting. I have asked the Principal to be sure that the team looks at this issue and develops strategies beyond what is already in place to address it. In addition, this is an area that the Committee on Strengthening Secondary Education should be charged to address in both the middle schools and the high school.

4. Sixty-eight students (11% of the graduating class) demonstrated academic proficiency in one or more areas through the portfolio process. Each student who did not demonstrate the required academic proficiencies was assigned a faculty mentor who assisted the student in the development of a portfolio that evidenced proficiency. To support these students materials were developed by the English, Social Studies and Mathematics departments during the previous summer and throughout the school year. A committee of faculty members reviewed each completed portfolio to ensure that all graduation proficiency requirements were met.

## **EXCEPTIONS**

1. None.

Greenwich High School  
ED540 Graduating Class Report

<b>2000</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	471	250	221	38	17	377	39
Algebra I	86%	85%	88%	58%	71%	90%	90%
Math (4+)	54%	54%	52%	53%	29%	56%	41%
Sci (3+)	79%	78%	80%	71%	47%	84%	56%
Chem	97%	96%	98%	95%	71%	99%	92%
FL (3+)	65%	61%	70%	50%	12%	72%	38%
Soc Stud (4+)	34%	34%	34%	29%	18%	37%	21%
Voc Ed (2+)	18%	23%	12%	11%	24%	18%	21%
Arts (2+)	45%	40%	52%	55%	53%	44%	51%
College	27%	30%	24%	34%	0%	29%	13%

<b>2001</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	469	238	231	38	13	368	50
Algebra I	83%	85%	82%	74%	62%	88%	66%
Math (4+)	48%	54%	42%	53%	23%	51%	26%
Sci (3+)	76%	76%	76%	74%	38%	82%	44%
Chem	87%	89%	86%	89%	69%	89%	78%
FL (3+)	68%	64%	71%	50%	31%	73%	50%
Soc Stud (4+)	35%	36%	33%	32%	23%	38%	16%
Voc Ed (2+)	22%	30%	13%	5%	31%	22%	28%
Arts (2+)	45%	39%	52%	50%	31%	47%	34%
College	37%	38%	35%	53%	8%	38%	20%

<b>2002</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	472	252	222	28	7	390	49
Algebra I	91%	90%	91%	86%	71%	92%	86%
Math (4+)	58%	58%	58%	61%	43%	58%	55%
Sci (3+)	80%	75%	85%	89%	57%	82%	61%
Chem	85%	82%	88%	93%	86%	86%	71%
FL (3+)	74%	66%	83%	68%	57%	74%	82%
Soc Stud (4+)	47%	43%	52%	36%	71%	49%	49%
Voc Ed (2+)	25%	31%	19%	21%	57%	25%	27%
Arts (2+)	42%	39%	45%	50%	29%	43%	33%
College	39%	37%	41%	46%	14%	42%	14%

<b>2003</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	533	257	276	34	8	433	58
Algebra I	95%	93%	97%	97%	88%	95%	97%
Math (4+)	63%	64%	62%	85%	63%	63%	50%
Sci (3+)	83%	81%	84%	94%	75%	83%	71%
Chem	87%	86%	89%	97%	75%	87%	88%
FL (3+)	77%	71%	83%	68%	75%	80%	60%
Soc Stud (4+)	44%	45%	44%	41%	50%	48%	21%
Voc Ed (2+)	14%	20%	9%	6%	13%	15%	10%
Arts (2+)	51%	44%	57%	71%	38%	51%	43%
College	44%	43%	45%	62%	38%	46%	21%

Greenwich High School  
ED540 Graduating Class Report

<b>2004</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	565	262	303	38	14	432	81
Algebra I	86%	87%	85%	84%	79%	88%	75%
Math (4+)	61%	63%	59%	79%	14%	64%	43%
Sci (3+)	81%	81%	82%	97%	50%	85%	60%
Chem	89%	88%	90%	97%	71%	90%	81%
FL (3+)	76%	69%	82%	63%	50%	79%	72%
Soc Stud (4+)	54%	50%	58%	47%	0%	61%	28%
Voc Ed (2+)	25%	31%	19%	16%	29%	25%	23%
Arts (2+)	49%	45%	53%	76%	36%	48%	44%
College	44%	40%	47%	66%	0%	47%	23%

<b>2005</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	555	289	266	32	14	454	55
Algebra I	91%	89%	92%	91%	93%	90%	93%
Math (4+)	56%	56%	56%	50%	79%	56%	53%
Sci (3+)	80%	80%	79%	81%	93%	80%	76%
Chem	88%	86%	91%	88%	93%	88%	91%
FL (3+)	75%	76%	73%	78%	57%	76%	69%
Soc Stud (4+)	51%	48%	54%	53%	64%	51%	47%
Voc Ed (2+)	21%	22%	20%	28%	29%	20%	22%
Arts (2+)	50%	48%	53%	34%	57%	52%	47%
College	48%	48%	47%	47%	36%	50%	35%

<b>2006</b>	Total	Male	Female	Asian	Black	White	Hispanic
Total	625	324	301	44	20	500	61
Algebra I	88%	88%	89%	89%	55%	90%	84%
Math (4+)	63%	58%	69%	66%	20%	67%	41%
Sci (3+)	84%	80%	89%	77%	45%	89%	62%
Chem	93%	91%	95%	84%	80%	95%	87%
FL (3+)	78%	69%	88%	64%	40%	81%	77%
Soc Stud (4+)	47%	44%	50%	36%	25%	51%	28%
Voc Ed (2+)	24%	31%	17%	16%	35%	22%	39%
Arts (2+)	45%	41%	50%	36%	25%	49%	25%
College	50%	44%	55%	64%	15%	51%	43%