



Transforming Math & Science Education

**NTE Mobility Partners LLC and Bluebonnet Contractors LLC
Haltom High School
Annual Progress Report: September 2014 – August 2015
Submitted September 15, 2015
National Math and Science Initiative – College Readiness Program
Grant Term: August 1, 2011 – August 31, 2016**

NMSI'S College Readiness Program Summary

Founded in 2007, the National Math and Science Initiative's (NMSI) mission is to improve science, technology, engineering and math (STEM) performance by transforming schools, teaching and edification in the United States.

NMSI's College Readiness Program (formerly Comprehensive Advanced Placement "AP" Program) provides teacher training, support and resources in grades 6-12 to ensure that teachers have the content and pedagogical skills necessary to prepare their students to be active in rigorous math, science, and English (MSE) courses. The College Readiness Program challenges assumptions about who is capable of high achievement by creating environments where all students are seen as capable of succeeding in rigorous courses. The overall goal is to expand the number and diversity of traditionally-underrepresented student achievement at high levels by empowering high-need, traditionally-underrepresented students not only to enroll and participate, but also to achieve success in rigorous courses. By training the existing teacher corps, the number of students ready to succeed in college in both STEM and non-STEM majors will increase. The expected outcomes include increases in the above-mentioned areas and in the number of students who are college-ready.

In August 2011, National Math and Science Initiative (NMSI) began the first year of a five-year College Readiness Program grant with LBJ Infrastructure Group LLC and Trinity Infrastructure LLC supporting RL Turner High school in Carrollton-Farmer's Branch ISD.

This annual progress report reviews year four (4) of the College Readiness grant components for the Haltom High School program from September 2014 through August 2015. Below are the topics covered in the report:

- College Readiness Program Elements of Success
- School profiles
- Program activities
- Upcoming deliverables

College Readiness Program Elements of Success

Teacher Support

- Course Specific Training: Teacher-to-teacher instruction support including:
 - Four-day AP Summer Institutes followed by two-day workshops each fall to reinforce content knowledge
 - NMSI's Laying the Foundation training program for teachers of grades 3-11 to build the pipeline of students ready for rigorous AP courses
- Mentors: One-on-one support – including curricular help, pacing guidance, and instructional feedback – provided by expert teachers with a proven record of success in AP exams
- Online Curricular Resources: Access to the most effective teaching materials including a formative assessment system that allows teachers to customize their instruction and homework assignments toward a student's individual learning needs

Student Support

- Focused Study Sessions: At least three study sessions per AP subject, typically held on Saturdays, led by state and national AP experts who teach NMSI created lessons as students' classroom teachers observe
- Equipment & Supplies: Access to the latest laboratory equipment, graphic calculators, and other classroom materials needed to support rigorous coursework
- Exam Fee Subsidies: Program funds typically cover 50% of the cost of each AP exam

School Support

- Performance Analysis: Annual review of program components and compliance to ensure maximal program effectiveness
- Academic & Program Experts: Detailed curricular, programmatic, and logistical support provided by experienced academic content directors and program managers
- Shared Goal Setting & Accountability: Mutually agreed upon expectations for program participation and support, as well as performance goals for teachers, students, and schools

Awards

- Teacher Awards: \$100 for each qualifying score earned by a student who appears on a teacher's AP class roster plus \$1,000 bonus based on a qualifying score threshold set for specific AP courses
- Student Awards: \$100 for each qualifying AP exam score earned
- Administrator Awards: Awards granted to designated school administrators or lead teachers subject to the specific grant agreement for each school

School Profiles for the 2014-2015 School Year

The generous donation from NTE Mobility Partners LLC and Bluebonnet Contractors LLC has positively affected the lives of 287 students and eight teachers at Haltom High School in the fourth year of the program. These 287 students equate to 552 AP enrollments (some students are enrolled in more than one AP class).

Below is a chart that details AP enrollment at Haltom High School for the 2014-2015 school year, including a breakdown of unique student data.

Haltom High School 2014-2015 School Year			
MSE AP Courses	# of AP MSE Students Enrolled	# of AP MSE Minority Students Enrolled	# of AP MSE Female Students Enrolled
Math (M)			
Calculus AB	71	51	34
Calculus BC	29	17	15
Statistics	21	10	9
Total Math	121	78	58
Science (S)			
Biology	25	12	11
Chemistry	29	27	13
Environmental Science	51	33	25
Physics 1	106	77	54
Physics C	5	3	0
Total Science	216	152	103
English (E)			
English Lang.	116	81	82
English Lit.	99	57	56
Total English	215	138	138
TOTAL MSE	552	368	299

Program Activities: September 2014 – August 2015

AP Summer Institute (APSI) teacher training:

- AP teachers attend a week-long summer institute focused on content. This training strengthens teachers and allows NMSI to determine each individual teacher's needs.
- Eight AP teachers from Haltom attended an APSI in Irving on July 22-25, 2014.

Two-day training in the fall:

Six math and English teachers from Haltom High School attended two-day trainings on October 3-4, 2014. Four science teachers attended trainings in Dallas on September 26-27, 2014.

Student Study Sessions:

Teachers and students also continued with Student Study Sessions during this reporting period. These sessions serve as both extra time on task for students and excellent teacher training because teachers have an opportunity to observe expert teachers with their own students. Independent researchers who have studied the success of NMSI's AP College Readiness Program have determined that these study sessions are one of the essential elements of the program that lead to student success.

Student Study Sessions addressing a single discipline are typically held on Saturdays and last approximately six hours. If a course guarantees at least ten students attending any given session, outside consultants may be contracted to conduct the study sessions. Student Study Sessions serve as a review of previously-taught material rather than an introduction of new material. Students benefit from review led by an outside instructor, as it provides students a novel voice of instruction and also validates the regular classroom teachers to have a consultant reinforce the instruction they have been providing.

Haltom High School 2014-2015 Student Study Sessions			
	Math	Science	English
SSS #1	January 24, 2015	January 31, 2015	November 8, 2014
SSS #2	February 21, 2015	April 11, 2015	January 17, 2015
SSS #3	April 4, 2015	May 2, 2015	March 21, 2015

Mock Exams:

Mock exams are made available 30 days prior to the actual AP exam. Schools have a two-week window during that month in which to schedule and administer the mock exam. The mock exams serve as a benchmark, or indication, of how students will perform on the AP exam. The data provided by these exams is used to inform students of their strengths and weaknesses. Analysis of the data is used to determine the direction of remaining student study sessions. The simulated

testing environment also allows students to experience testing conditions prior to the actual exam administered in May.

Teachers also participate in an AP mock reading to score the essay portion of the AP mock exam shortly after the window closes. Consultants are present to lead the scoring of the AP mock exam. Mock Exams provide teachers with an individualized student formative assessment that allows them to remediate students on those themes, concepts, and processes covered on the national exam. Teachers are able to receive professional development training on the processes and protocol of the national exam as well as receive materials and resources that will enable them to provide additional individualized review and/or instruction.

Mock exam readings were held on February 13, 2015 for English, and on March 20, 2015 for math and science.

Mentoring:

In a school environment, a good mentor can be the key to a successful support system for new teachers or for teachers who want to learn how to become more effective AP instructors, with more of their students reaching qualifying scores on AP exams every year.

By adding this support mechanism, mentors help teachers address challenges met in the classroom, keep them on pace, share instructional best practices, and are available during gaps between training sessions. Two teachers at Haltom High School were assigned a mentor during the 2014-2015 school year.

Vertical Team Meetings:

NMSI expects schools to integrate its Laying the Foundation teacher training program with any existing vertical teaming initiative at the school. If the concept of vertical teaming is new to schools, NMSI works with the district over the life of the grant to get a vertical teaming program in place. Program schools that have experience with vertical teaming are incorporating a number of structured meetings throughout the year. Haltom lead teachers conducted four vertical team trainings throughout the year focusing on rigor and relevance of materials in Pre-AP and AP coursework. They also worked on vertically aligning their materials for each course to match the AP framework.

Financial Awards:

Students are paid \$100 for each passing score on an AP math, science and English exam. Teachers are paid \$100 per student in the class who receives a passing score on an AP exam as well as a \$1,000 threshold bonus. Threshold bonuses further encourage teachers to hit their goals of promoting more students to pass the AP exam.

Administrators receive bonuses of \$1,500 based on pre-determined thresholds of students who receive passing scores on their AP exams.

All schools are given a threshold bonus to further encourage teachers to hit their goals of promoting more students to receive passing scores on the AP math, science and English exams. NMSI sets tiered targets for the number of passing scores, based on previous success.

A celebration honoring Haltom High School students earning AP qualifying scores was held on October 8, 2014 at 9:30 AM. North Tarrant Express Mobility Partners were a significant part of the celebration as Haltom celebrated an increase of 39% in qualifying scores on the May 2014 AP exams. Key staff and mentors were honored as well. Teachers and administrators received their award payments in the fall of 2014 as well.

AP Test Results:

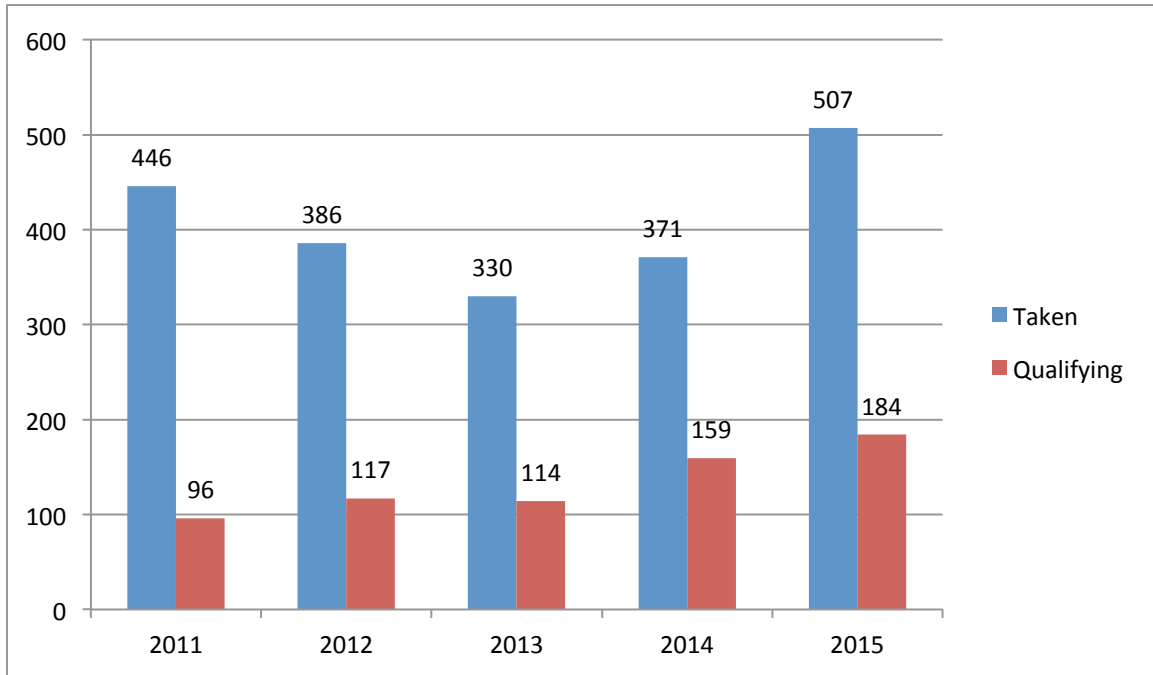
The 2014-2015 school year at Haltom High School showed a 37% increase in AP enrollment compared to 2013-2014. Over the life of the grant, qualifying scores have increased an impressive 57%.

Great strides were made in the amount of AP science tests taken and in qualifying scores, up 178% from just last year. While English AP taken and qualifying scores remained about the same, the qualifying scores in math went down compared to last year. However, the math scores have still improved 55% over the life of the grant

The chart and graphs below depict the AP results for Haltom HS broken down by subject matter and for all subjects combined.

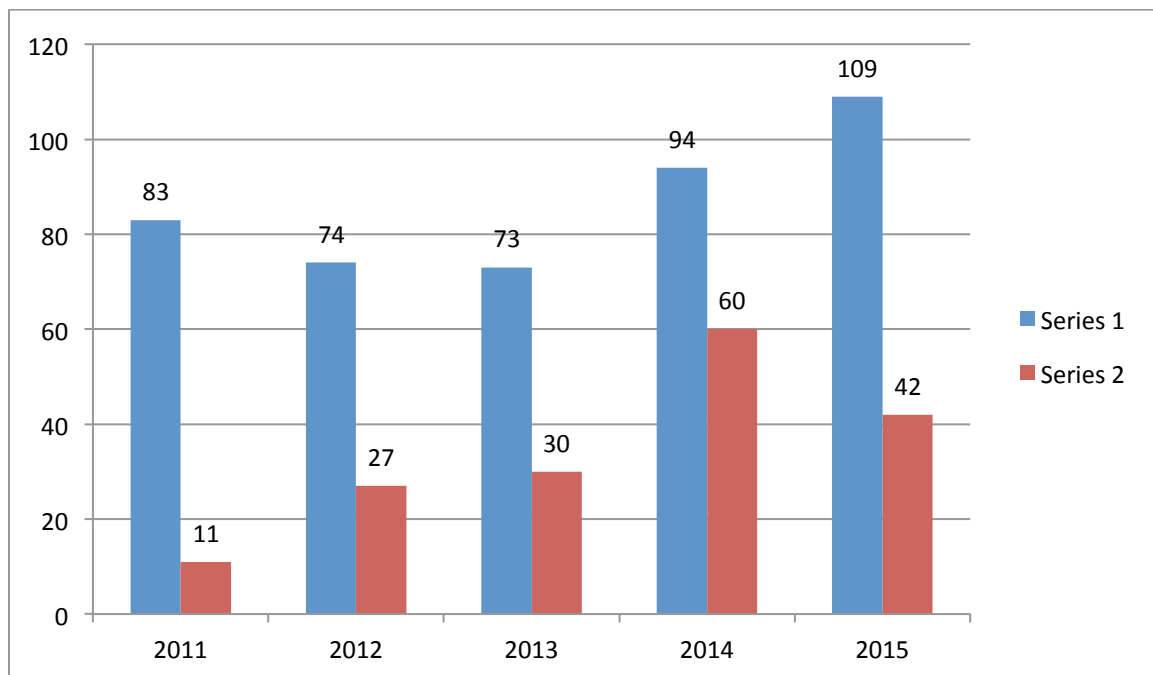
Haltom HS	2011		2012		2013		2014		2015	
	Taken	Qualifying	Taken	Qualifying	Taken	Qualifying	Taken	Qualifying	Taken	Qualifyir
Math	83	11	74	27	73	30	94	60	109	42
Science	125	17	107	20	63	23	65	23	205	64
English	238	68	205	70	194	61	212	76	193	78
TOTAL M/S/E	446	96	386	117	330	114	371	159	507	184

Haltom High School All Subjects

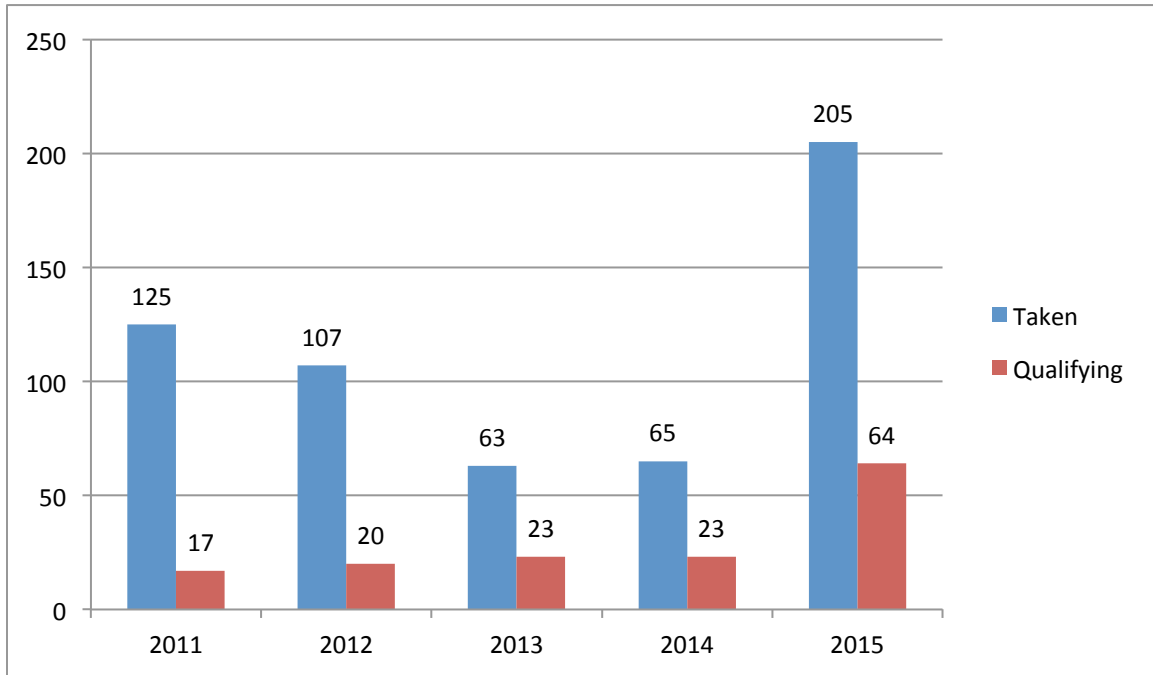


*2011 indicates baseline data prior to NMSI's implementation of the College Readiness Program.

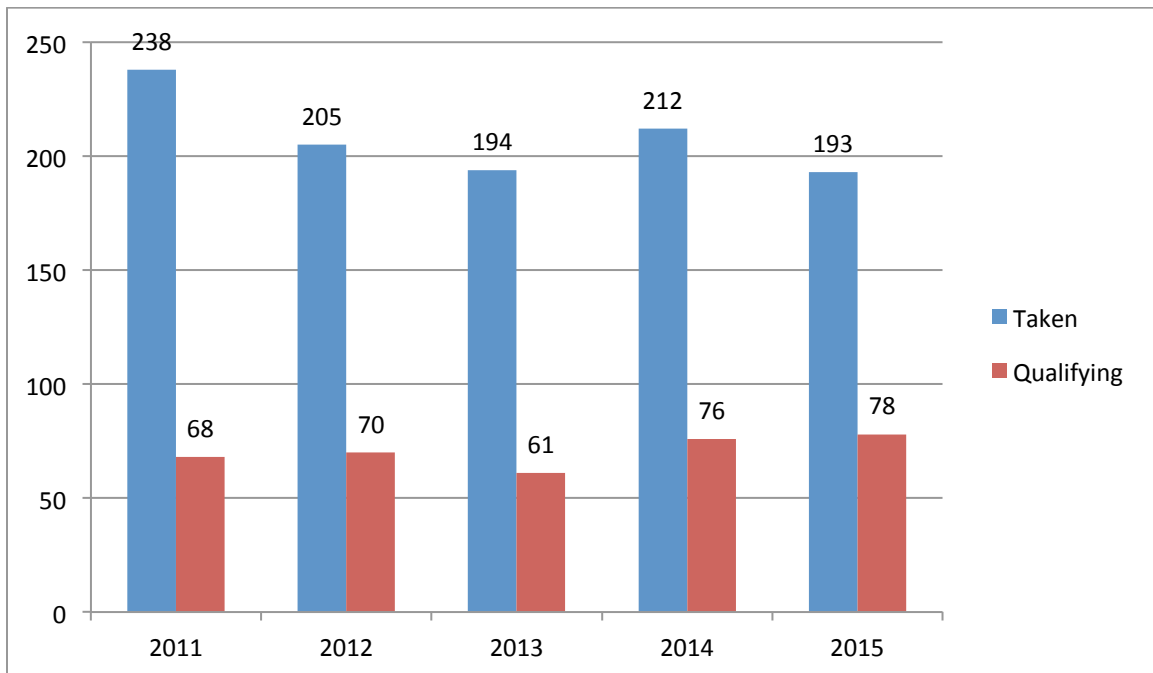
Haltom High School Math



Haltom High School Science



Haltom High School English



Upcoming Deliverables

Pep Rally – A pep rally will be held at the Haltom High School auditorium on November 2, 2015.

2-Day Training – Science teachers will attend the two-day training on November 6-7, 2015 while math and English teachers will attend on October 16-17, 2015.

Saturday Study Sessions – The district is in the process scheduling the Saturday Study Session for 2015-2016.

Mock Exams – English will be held on February 26, 2016 and math and science on April 1, 2016.

AP Exams – The College Board AP exams will be administered during the weeks of May 2-6 and May 9-13, 2016.