

# NATIONAL MATH + SCIENCE INITIATIVE ANNUAL REPORT 2014



# **OUR MISSION:**

To inspire, engage and empower all students to succeed in today's knowledge economy by advancing STEM teaching and learning. Today, more than ever, a quality education is the foundation of opportunity. The heights that young people can reach are increasingly determined by their academic success, especially in science, technology, engineering and math. Moreover, students' success in school will determine our country's success in the global economy.

Since 2007, the National Math and Science Initiative has brought together leaders in business, education and philanthropy to make one simple idea a reality: With great schools and great teachers, every student can thrive. To date, our programs have supported more than 50,000 teachers and a million students across 36 states. Our efforts are proving that we can achieve transformational results, but our work is far from finished.

With an ambitious vision we are raising the academic bar in every kind of school, urban and rural, disadvantaged and affluent, from coast to coast. Our team works diligently every day with teachers, students and schools to strengthen more classrooms as we continue to expand our geographic footprint and deepen our impact in the communities we serve.

We do this work because we have an obligation to our students — all our students — to ensure that they are getting the best education we can provide. But we cannot do it alone. As we embark on an exciting new phase of our growth as an organization, we look forward to bolstering our connections with you, engaging even more stakeholders and strengthening the vital partnerships that make our work possible.

We thank you for your commitment and look forward to your continued support as we work together to transform math and science education in classrooms across the country.

Sincerely,



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Matthew Randazzo Interim CEO



Tom Luce Chairman of the Board of Directors

# **OUR WORK**

Success in today's global economy requires a higher level of education than ever before. Specialized knowledge and skills in science, technology, engineering or math are required for one-fifth of today's jobs. STEM jobs are projected to grow 55 percent faster than jobs in other fields over the next decade.

Yet our educational system has not kept pace with the workforce demands of the 21st century, and critical gaps exist in STEM achievement among female and minority students.

At the National Math and Science Initiative, we believe that true educational transformation requires effective, scalable programs that ensure all students graduate from high school with the knowledge and skills they need to succeed in college and beyond.

We are making remarkable progress. In just seven years, we have trained more than 50,000 teachers, improving the quality of instruction students receive beginning in elementary school. We have attracted more than 125,000 students into rigorous math, science and English courses, dramatically boosting annual Advanced Placement<sup>®</sup> performance in partner high schools. And we have supported the preparation of more than 1,200 new math and science teachers holding STEM degrees.

We are challenging assumptions about who can succeed at high levels by making academic excellence an expectation for more students, teachers and schools than ever before. By investing in the classrooms of today, we are building the confident and capable workforce of tomorrow.

## IN 2014, NMSI PROGRAMS IMPACTED ...



# **OUR PROGRAMS**

Proficiency in math and science is crucial to our country's capacity for innovation and future economic growth, yet a growing number of students lack foundational knowledge in these subjects. Moreover, achievement gaps among women and underrepresented minorities in STEM fields persist even as industry leaders seek to build a diverse workforce. Our programs address these crucial skill gaps and broaden access to high-quality math and science education by providing a continuum of training and support for students and teachers from elementary school through college.



## COLLEGE READINESS PROGRAM

Our *College Readiness Program* is raising the academic bar in public high schools across the country and expanding access to rigorous coursework to traditionally underrepresented students. The three-year program produces unparalleled gains in student achievement in Advanced Placement<sup>®</sup> math, science and English courses at partner schools. Students who master AP courses in high school are better equipped to succeed in post-secondary coursework and are three times more likely to graduate from college.



## LAYING THE FOUNDATION PROGRAM

Our *Laying the Foundation Program* is improving the quality of instruction that students receive in classrooms nationwide. Teachers are equipped with hands-on training, tested content materials and research-based instructional strategies; all of these are designed to increase academic rigor and prepare a pipeline of students ready to meet the challenges of advanced coursework in math, science and English.



## UTEACH EXPANSION PROGRAM

Our *UTeach Expansion Program*, a collaboration with the UTeach Institute at the University of Texas at Austin, is putting a new generation of highly qualified math and science teachers in middle and high school classrooms. The program enables undergraduate students majoring in STEM fields to earn teaching certification without adding cost or time to their degrees, and prepares them for success with extensive classroom training and ongoing professional development.

# **OUR SUCCESSES**

## **RECORD-BREAKING RESULTS**

Students at Mississippi's Ocean Springs High School achieved the largest first-year increase in AP performance in the history of the *College Readiness Program*. In school year 2012-13, prior to partnering with NMSI, students earned just 18 qualifying scores\* on AP math, science and English exams. In 2013-14, that number skyrocketed to 195.

#### TRAINING FOR ELEMENTARY TEACHERS

We expanded our nationally recognized *Laying the Foundation Program* to reach third-, fourth- and fifth-grade teachers. Previously available to only middle and high school teachers, the program is now strengthening the pipeline of students prepared for rigorous coursework beginning in the critical elementary years.

## **TEN NEW UTEACH SITES**

Ten research universities joined the national *UTeach* network, made possible by a \$22.5 million grant from Howard Hughes Medical Institute. The network now includes 44 universities across 21 states and the District of Columbia.

Drexel University Florida International University Oklahoma State University University of Alabama at Birmingham University of Maryland, College Park George Washington University Louisiana Tech University University of Massachusetts Boston University of Nevada, Reno West Virginia University

#### **10X GAIN IN QUALIFYING AP SCORES**

After just one year, schools participating in the *College Readiness Program* increased their number of qualifying exam scores in AP math, science and English by 10 times the national average and recorded outstanding gains among minority and female students.

\*Qualifying scores of three or higher on a five-point scale signify mastery of rigorous AP coursework and give students the opportunity to earn credit at many colleges and universities across the country.





"NMSI has helped us reach a whole group of students we weren't reaching before. A lot of these kids' parents didn't go to college and this experience is opening up a world that some of them didn't know existed. You can't change mindsets overnight, but we've broadened the audience that's taking our most challenging courses, and that has become the new norm."

Amy Gayheart
 Assistant Principal
 Fairborn High Schoc
 Fairborn, Ohio

# **OUR VISION FOR GROWTH**

Since 2007, NMSI has moved the needle on teacher effectiveness and student achievement in a dramatic way, launching exceptional educational programs in 36 states and the District of Columbia. In the coming year, we aim to support more students and teachers across the country by strategically expanding our geographic footprint and deepening our impact in the communities we serve. As we continue to work toward a future in which every student graduates from high school prepared to succeed in college and career, we will focus on three priority initiatives:



## **BUILD CAPACITY IN STEM-INTENSIVE COMMUNITIES**

Metropolitan areas with a high concentration of STEM-intensive industries perform strongly on a wide variety of economic indicators, from innovation to employment. By seeding our programs in communities where at least one-fifth of local jobs require a STEM degree, NMSI will bolster the pipeline of skilled students and workers needed to fuel both local and national economic growth.



## EXPAND SUPPORT FOR STUDENTS OF MILITARY FAMILIES

Educational continuity is a particular challenge for children of military families, who attend six to nine different schools systems, on average, during their academic careers. Over the next five years, we will expand the reach of our *College Readiness Program* to 200 military-connected schools, ensuring consistent, high-quality education for thousands of students required to relocate during high school.



## LEVERAGE PARTNERSHIPS TO SUSTAIN POSITIVE OUTCOMES

The enduring impact of NMSI's programs on student and teacher success lies in the capacity of schools to become their own champions for change. Over the next year, we will launch several sustainment strategies — including challenge grants and new public-private partnership opportunities — designed to help schools build the community- and state-level investments needed to support continued academic excellence.

# \$26,024,328 Invested in education

NMSI is committed to the responsible management of all gifts and financial resources that support our work in classrooms across the country. Eighty-four cents of each dollar we spend go directly to providing schools, teachers and students with vital training and resources. The remainder supports crucial investments in organizational infrastructure, strategy and sustainable growth. The following financial information covers the fiscal year Jan. 1, 2014 to Dec. 31, 2014.\*



# DONORS

NMSI's work is made possible by our supporters' extraordinary generosity and ongoing commitment to ensuring high-quality STEM education in classrooms across the country. We are deeply grateful for the philanthropic leadership of the following individuals, foundations, corporations and government entities that have pledged or contributed \$10,000 or more in lifetime giving.

#### \$50,000,000 +

ExxonMobil

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To change our course and empower future generations for success, we must continue working to increase academic rigor and teacher effectiveness for every student.

Join us in transforming America's classrooms.

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