

Achievement Report

2016



Since 2007, NMSI has supported 1.5 million students at more than 1,000 high schools and 45 universities from coast to coast with effective programs that are created for teachers, by teachers.

By working to ensure all students thrive in advanced coursework, we're proud to help prepare them for college and career.



We believe that with great schools and great teachers, every student can thrive.

Reducing equity gaps in our country begins with ensuring every student has access to a high-quality education and graduates ready for college and career. That is why the National Math and Science Initiative (NMSI) is dedicated to improving student achievement with proven, effective programs that can be replicated and scaled nationwide. Since our founding, we've partnered with schools in 530 districts to support more than 1.5 million students from coast to coast. This year, NMSI has seen unprecedented growth. Our results have been recognized nationally, inspiring further expansion of NMSI's three core programs: the College Readiness Program, Laying the Foundation Teacher Training Program and UTeach Expansion Program.

Building upon successes in 2015-16, the 2016-17 school year promises to be our most exciting and productive year to date. Thanks to a \$20 million Scale-Up grant from the U.S. Department of Education's Investing in Innovation program, NMSI's College Readiness Program – which dramatically increases the number of students taking and earning qualifying scores on Advanced Placement® (AP®) math, science and English exams – will reach 60,000 additional students at 42 schools serving a high proportion of traditionally underrepresented students. We will expand efforts to transform the teaching profession through training for pre-service and in-service educators, continue support for military-connected students and their families and forge new community partnerships to build greater local capacity for systemic change in our schools. As an organization, we have expanded our team to support increased scale and reach new heights on behalf of America's public school students.

And in this critical moment in education reform, NMSI's deep bench of thought leaders will seize opportunities to shape the national conversation around science, technology, engineering and math (STEM) literacy and workforce development.

Our goals are ambitious, and the road ahead is long. The onus is on us to empower communities to remove barriers to access so that all students, regardless of ZIP code, can engage in learning opportunities that prepare them for a bright future. But I'm excited about the challenges in front of us. Thanks to strong partnerships and a clear vision of success, I'm confident we will make even greater strides toward improving student achievement across the country in 2016-17.



A handwritten signature in black ink that reads "M. Randazzo". The signature is fluid and cursive.

Matthew Randazzo
Chief Executive Officer

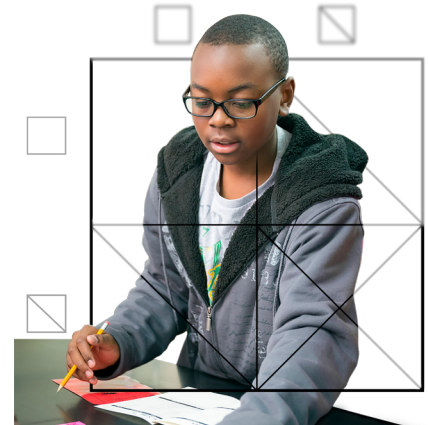
Left: (From top right) Andy Vega, Sammy Swim, Desiree Cadena, Lissette Saucedo, Elias Brown and Nicole Cisneros
South Garland HS, Garland, TX

On the cover: (Back row) Gigi Varlotta, Alexandra Plummer, Jasmine Wasler, Adrian May, Martin Kovalik Haas, Jarred Rodgers.
(Front row) Sagar Kamath, Jacob Richards
Pittsburgh Creative and Performing Arts School, Pittsburgh, PA

College Readiness Program

NMSI's College Readiness Program (CRP) is raising the academic bar in high schools across the country and expanding access to rigorous coursework so that all students, including those from underserved communities, are prepared to succeed after graduation.

Through comprehensive teacher training, more time on task to help students excel, and resources and supplies to support challenging courses, the three-year program dramatically increases the number of students taking and earning qualifying scores on Advanced Placement® (AP®) math, science and English exams — an important indicator of students' college preparedness and success. Students who master AP courses in high school are better equipped to succeed in post-secondary coursework and are more likely to graduate from college.

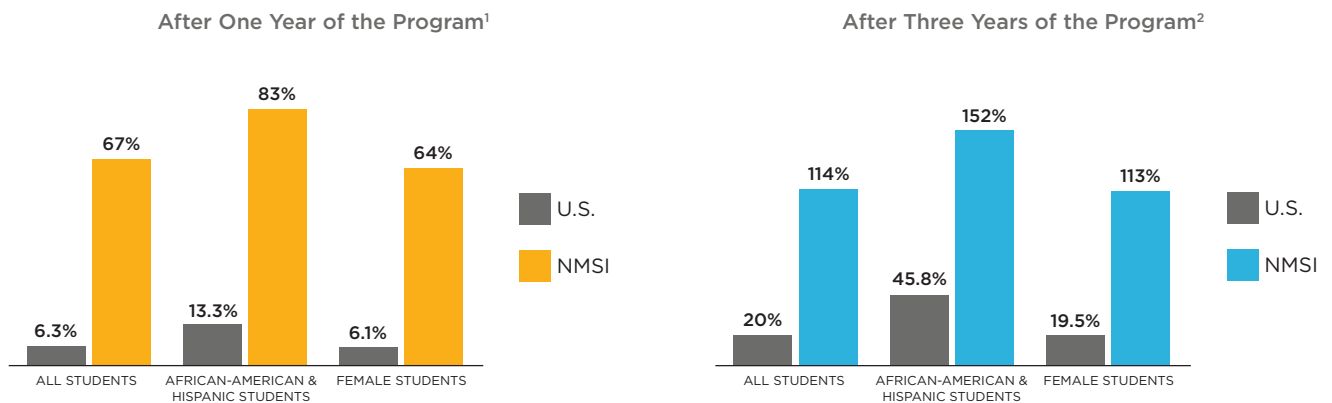


In just one year, CRP boosts the number of AP qualifying scores earned at partner schools by 10 times the national average.

Partner schools completing their first year of the program show a **67 percent** increase in the number of qualifying scores earned on math, science and English AP exams — **more than 10 times the national average.**

After three years in the program, partner schools continue to see exceptional results, including outstanding achievement among minority and female students.

Percentage Increase in AP Qualifying Scores in Math, Science and English at CRP Partner Schools



1. N = 702 NMSI partner schools that completed at least one year of CRP between 2009 and 2016, compared with the national increase (approximately 20,000 schools) over the same time period.

2. N = 543 partner schools that completed three years of CRP between 2011 and 2016 compared with the national increase over the same time period.

Samantha Marszalek, a current sophomore at the Creative and Performing Arts High School in Pittsburgh, Pennsylvania, took her first AP class in 2015-16. Intimidated by the challenge, she credits NMSI with giving her the confidence to persevere.

“With NMSI I am encouraged to take classes that challenge me that I wouldn’t have otherwise taken. The coursework is hard, but I think the outcome is really rewarding, which encourages me to keep going.”



Standout Successes

- For the second consecutive year, the School of Science and Engineering in Dallas, Texas, ranked number one in the country for the number of qualifying scores earned by African-American and Hispanic students in AP math and science.
- In 2015-16, IDEA Frontier College Preparatory in Brownsville, Texas, had the greatest percentage increase nationwide — 306 percent — in math and science AP qualifying scores among African-American and Hispanic students.
- West Allegheny High School in southwest Pennsylvania achieved a 544 percent increase in the number of AP qualifying scores earned in math and science — the largest percent increase in AP math and science scores in the country.

Lissette Saucedo, a 2016 graduate of Texas’ Garland High School, says she is ready for the challenges of college after taking CRP-supported AP classes. Lissette is now a freshman pursuing a science degree at El Centro College in Dallas to prepare for a career in nursing.

*“Taking AP classes is probably the best choice I’ve ever made. **I will be the first person in my family to go to college because of NMSI.**”*



Expanding our Impact

In December 2015, NMSI was awarded a competitive five-year \$20 million Investing in Innovation (i3) grant from the U.S. Department of Education to expand CRP to nine urban and rural school districts across eight states, serving a high proportion of traditionally underserved students. The i3 program aims to develop and expand practices that accelerate student achievement and prepare students to succeed in college and career.

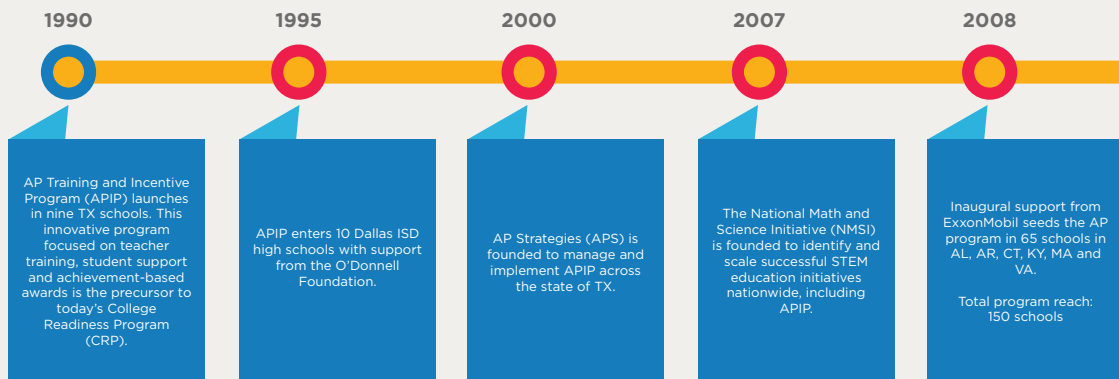
i3 Quick Facts

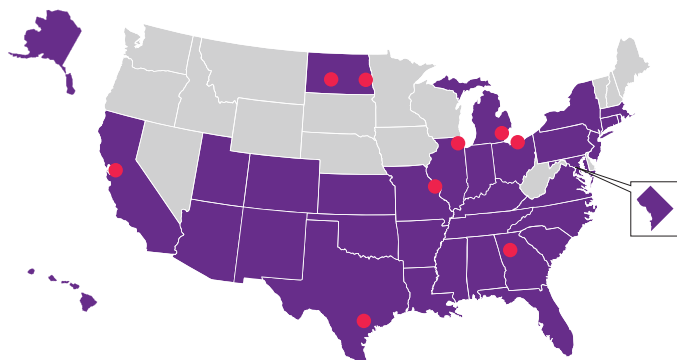
- CRP will launch in 42 schools over the next two years, in geographies selected specifically for their concentration of high-need students, science and engineering-based economies and known opportunity and achievement gaps.
- The project will benefit 60,000 students, including 28,000 students directly enrolled in AP courses and an additional 32,000 students in grades 3 through 12 whose teachers will participate in Laying the Foundation training.
- A rigorous research study, conducted in partnership with UCLA's National Center for Research on Evaluation, Standards, and Student Testing, will estimate the impact of CRP on selected student outcomes and examine the factors associated with successful program implementation.

To date, NMSI's College Readiness Program has reached more than 1.5 million students at 1,000+ partner schools nationwide.

Celebrating 25 Years of CRP

NMSI's College Readiness Program is dramatically increasing student participation and success in rigorous coursework in math, science and English, while expanding access to traditionally underrepresented students. A program that humbly began in just nine Texas high schools is now one of the leading programs boosting AP success for more than 1.5 million students from coast to coast.





■ States with CRP Partner Schools
 ■ i3 Locations

i3 Participating Districts

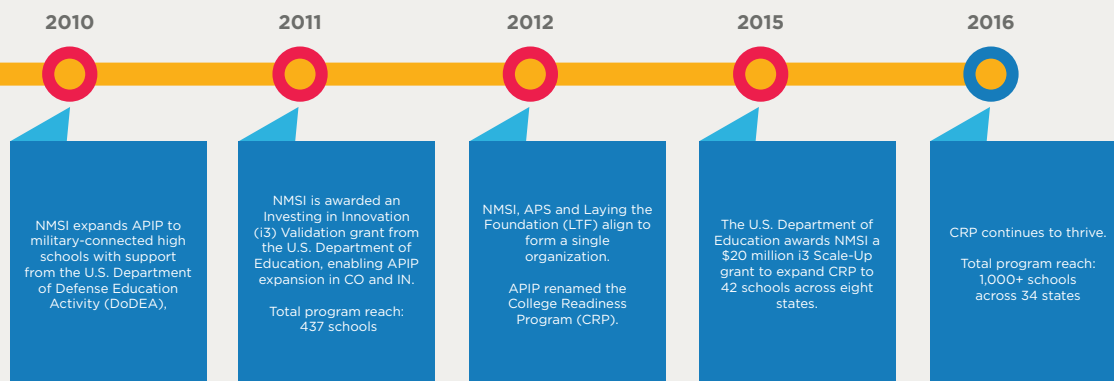
- CA** Oakland Unified School District
- GA** Atlanta Public Schools
- IL** Noble Network of Charter Schools
- MI** Detroit City School District
- MO** St. Louis Public Schools
- ND** Bismarck Public Schools
West Fargo Public Schools
- OH** Cleveland Metropolitan School District
- TX** Houston Independent School District



Mohana Aravamudham, an AP Calculus AB teacher at Cleveland School of Architecture and Design in Cleveland, Ohio, attended AP Summer Institute teacher training in preparation for the 2016-17 school year through the i3 grant.

“What I’ve learned will allow me to take a “B” or a “C” student in my class to an “A” student who can earn a qualifying score on the AP exam.”

In the late 1980s, Texas industry leader and philanthropist Peter O’Donnell understood the importance of improving student preparedness for college and the workplace, particularly in math and science. To enhance local education for families connected to the Superconducting Super Collider (SSC) — a project destined to produce the world’s largest particle accelerator near Waxahachie, Texas — O’Donnell created and funded a program to boost student achievement in challenging AP coursework. The results exceeded expectations. Although the SSC was never completed, the visionary high school program has endured, and is now a cornerstone NMSI initiative reaching students across 34 states.



CRP for Military Families

Students of military families attend six to nine different school systems on average, making consistent access to a high-quality education an ongoing concern. NMSI is proudly meeting this challenge head-on through expansion of CRP to military-connected schools across the country.

With support from the U.S. Department of Defense and a broad coalition of partners, the program has reached 160 military-connected schools across 29 states with plans for continued growth.

By fostering learning environments in which all students are seen as capable of succeeding in advanced coursework, NMSI's College Readiness Program is transforming school cultures and expanding the pipeline of students meeting and exceeding college and career readiness expectations. Because the AP curriculum is uniform across the country, NMSI's program provides excellence and continuity for students whenever and wherever their families are transferred.



Jamal Ballard, a graduate of Georgia's Houston County High School, grew up with both parents serving active duty in the Air Force. Now a freshman at the University of

Georgia studying computer science, Jamal credits NMSI with preparing him for college.

*"The best thing about NMSI's program is the teachers. They make the courses interesting and engaging, while also challenging us and pushing us to do our best. **The program gave me freedom to tackle my own challenges, but in a way that never set me up for failure or made me feel alone.** I always had a lifeline with a teacher or my peers who were going through the same courses."*

Standout Successes

BUENA HIGH SCHOOL

Fort Huachuca, Arizona

AP qualifying scores on math, science and English exams increased **209 percent** in their first year, **ranking them third in the nation.**¹

WAYNESVILLE HIGH SCHOOL

Fort Leonard Wood, Missouri

Led the state with a **257 percent increase** in math, science and English AP qualifying scores over the past two years, compared with only 16 percent for the rest of the state over the same period.²

OCEAN SPRINGS HIGH SCHOOL

Keesler Air Force Base/Naval Construction Battalion Center Gulfport/Naval Research Laboratory Stennis Space Center, Mississippi

Increased from 18 to 246 AP qualifying scores in math, science and English over the past three years, accounting for **25 percent of the entire state's increase** in these subjects.

1. Percent increase rankings of the 7,041 high schools with a base of at least 20 qualifying AP scores on math, science and English exams

2. Percent increase rankings for the 91 schools with at least 10 AP qualifying scores on math, science and English exams.

Laying The Foundation

Designed and led by expert teachers, the Laying the Foundation (LTF) Teacher Training Program is empowering educators to set high classroom expectations and shift students to advanced levels of thinking and learning in grades 3 through 12.

Educators attending LTF teacher training are equipped with content knowledge, instructional strategies and classroom-ready materials, resulting in teachers who are more confident in their practice, better vertical alignment across grade levels, and a strong pipeline of students who are better prepared for the rigors of advanced coursework.



Standout Successes

- In summer 2015, NMSI proudly partnered with the Louisiana Department of Education to provide LTF teacher training to thousands of English language arts educators across the state at the Louisiana Teacher Leader Summit and Summer Content Institutes. To prepare for the coming school year, Louisiana teachers used NMSI-created curricular materials aligned to state guidebooks and designed to help educators instill key skills necessary for building college and career readiness.
- In an effort to better meet the needs of elementary school educators, NMSI content specialists doubled the amount of training resources available for teachers of grades 3 through 5. As a result, NMSI now has a suite of elementary teaching and learning modules that provide a strong foundation for students prior to entering the critical middle school years.

{ More than 8,000 educators nationwide participated in LTF training in 2015-16. }



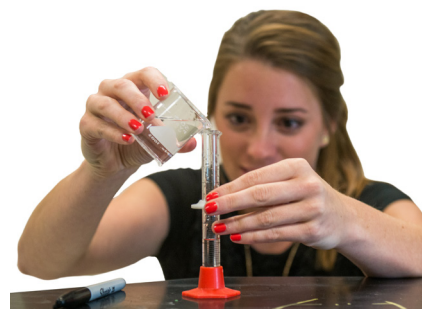
DeEtte Wick, a middle school and high school English teacher, attended the Carrollton-Dallas Laying the Foundation Summer Institute in Texas.

“I cannot say enough about how exceptional this program is. The lessons are easy to embed into my instruction or are quickly adapted to meet the needs of my students. Better than the lessons is the depth of understanding that I have developed as a result of the training. The instructors were knowledgeable and the activities in the training were meaningful.”

UTeach Expansion Program

The UTeach Expansion Program, a collaboration with the UTeach Institute at The University of Texas at Austin, is working to prepare the next generation of highly qualified math and science teachers.

UTeach is addressing the need for educators with both deep STEM content knowledge and pedagogical skills by enabling students studying STEM disciplines in college to earn teaching credentials without adding time or cost to their degrees. In addition to supporting expansion of UTeach to more universities nationwide, NMSI is preparing UTeach graduates for success with extensive classroom training and ongoing professional development.



Standout Successes

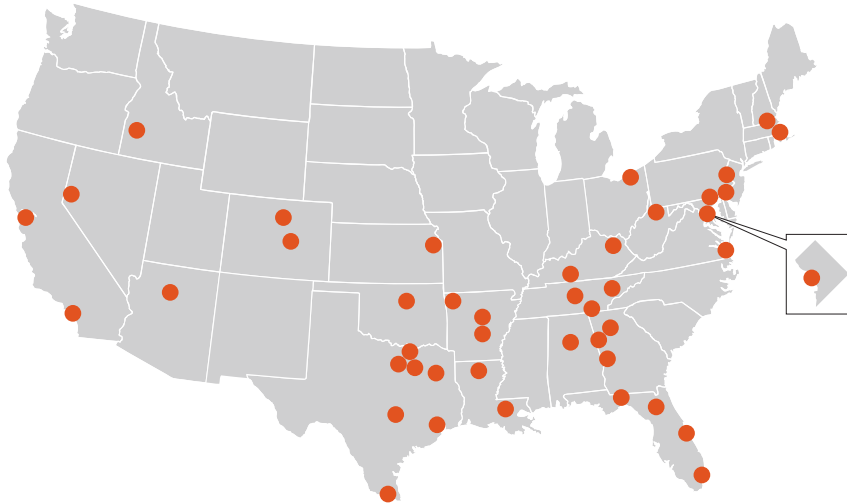
1. As of Spring 2016, more than 3,200 students have graduated from UTeach programs across the country.
2. In 2015-16, students, alumni and master teachers from 42 UTeach programs participated in NMSI-led professional development opportunities, ensuring that they continue to be effective in the classroom. More than 300 educators enhanced their skills by attending NMSI's Laying the Foundation and AP Summer Institute training around the country, the UTeach National Conference and the UTeach Alumni Conference.



In May 2016, **Dr. Ernst and Sara Lane Volgenau** of Virginia were honored for their gift of nearly \$4 million towards the successful launch of MSUTeach at Morehead State University in Kentucky. The couple has strong ties to MSU and education, dating back to 1957 when Mrs. Volgenau earned her elementary education degree from the university.

"We believe that meeting the educational needs of children is critical to the future of our society. By supporting UTeach at Morehead State University, we are excited to ensure future generations of students can learn science, technology, engineering and mathematics from teachers who have true content knowledge and a passion for their subjects." - Dr. Ernst Volgenau

The national UTeach network now includes
45 universities across 21 states and the
District of Columbia.



ALABAMA

University of Alabama, Birmingham

ARIZONA

Northern Arizona University

ARKANSAS

University of Arkansas, Fayetteville
University of Arkansas, Little Rock
University of Central Arkansas

CALIFORNIA

University of California, Berkeley
University of California, Irvine

COLORADO

University of Colorado, Boulder
University of Colorado, Colorado Springs

FLORIDA

Florida State University
University of Florida
Florida Institute of Technology
Florida International University

GEORGIA

Columbus State University
Kennesaw State University
University of West Georgia

IDAHO

Boise State University

KANSAS

University of Kansas

KENTUCKY

Western Kentucky University
Morehead State University

LOUISIANA

Louisiana State University
Louisiana Tech University

MARYLAND

Towson University
University of Maryland, College Park

MASSACHUSETTS

University of Massachusetts, Lowell
University of Massachusetts, Boston

NEVADA

University of Nevada, Reno

OHIO

Cleveland State University

OKLAHOMA

Oklahoma State University

PENNSYLVANIA

Temple University
Drexel University

TENNESSEE

Middle Tennessee State University
University of Tennessee, Chattanooga
University of Tennessee, Knoxville

TEXAS

University of Texas, Austin
University of Houston
University of North Texas
University of Texas, Dallas
University of Texas, Arlington
University of Texas, Tyler
University of Texas, Rio Grande Valley
University of Texas, San Antonio

VIRGINIA

Old Dominion University

WASHINGTON D.C.

George Washington University

WEST VIRGINIA

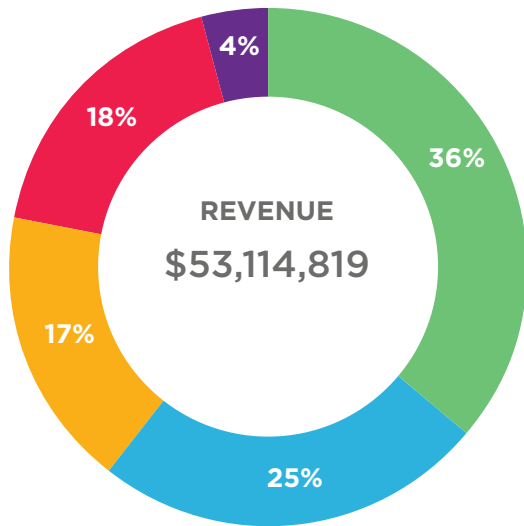
West Virginia University

Investing in Education

An investment in NMSI is an investment in ensuring the future success of students across the country.

The vast majority of our funding — 86 percent to be exact — provides direct support to teachers, students and schools engaged in CRP, LTF and UTeach. The remainder is thoughtfully used to support our strategic efforts to grow and help even more students and teachers nationwide.

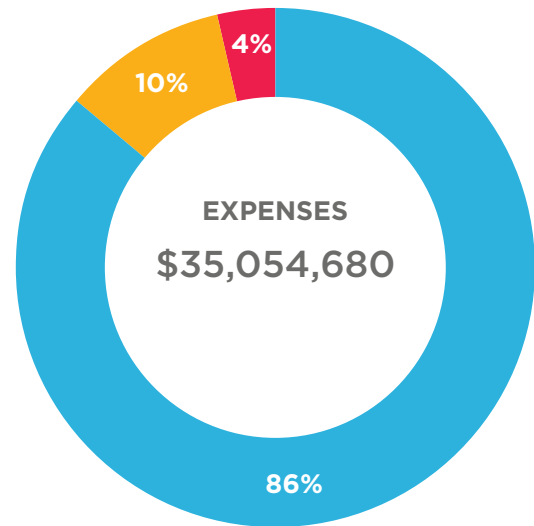
Eighty-six cents of every dollar we spend provides students, teachers and schools with the resources they need to thrive.



REVENUE

Corporate	\$19,279,076
Foundations	\$13,028,019
Government	\$ 9,214,541
Fee for Service	\$ 9,519,595
Other Income	\$ 2,073,588

Total Revenue \$53,114,819



EXPENSES

Program Services	\$30,233,961
Administration	\$ 3,557,951
Fundraising	\$ 1,262,768

Total Expenses \$35,054,680

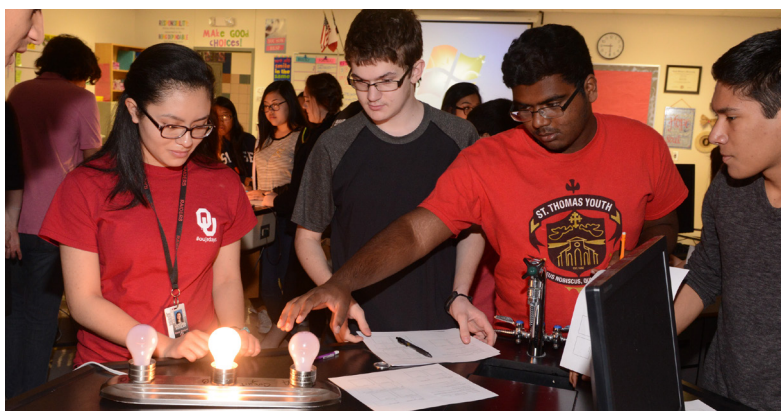
Our Mission in Action



In September 2015, four major TV networks aired a star-studded telecast to launch *Think It Up* — a new education initiative spearheaded by the Entertainment Industry Foundation. The broadcast highlighted NMSI's CRP partnership with IDEA Public Schools in the Rio Grande Valley, TX.



NMSI CEO Matthew Randazzo speaks with CRP students at Baton Rouge Magnet High School in Baton Rouge, LA, during a February 2016 event announcing a major expansion of the program in Louisiana with generous support from ExxonMobil.



AP physics students prepare for their upcoming exam during a spring 2016 student study session at Sachse High School in Garland, TX.



Sarah Moynes, an AP biology teacher at Serra High School in San Diego, CA, and Matthew Randazzo discussed how public-private partnerships can improve student achievement in STEM at the U.S. STEM Solutions conference in June 2015.



In April 2016, Dr. Jill Biden visited Escambia High School in Pensacola, FL, to announce expansion of NMSI's College Readiness Program for Military Families.

Our Donors Make This Extraordinary Work Possible. Thank You.

Because of the generous support of our donors, students across the country have access to the rigorous education and qualified teachers they need to succeed in the 21st century. We are grateful for the following individuals, foundations, corporations and government entities who have pledged or contributed \$10,000 or more in thoughtful lifetime support of our mission.

\$50,000,000 +

ExxonMobil

\$10,000,000 - \$49,999,999

Bill & Melinda Gates Foundation

U.S. Department of Defense Education Activity

Howard Hughes Medical Institute

Michael & Susan Dell Foundation

Texas Instruments Foundation

U.S. Department of Education

O'Donnell Foundation

\$1,000,000 - \$9,999,999

BAE Systems, Inc.

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The Grainger Foundation

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Jack Kent Cooke Foundation

The KLE Foundation

Lockheed Martin Corporation

Northrop Grumman Foundation

Office of Naval Research

Rosemary and Roger Enrico Foundation

\$500,000 - \$999,999

AT&T

The College Board

Freeport-McMoRan Copper & Gold Foundation

\$100,000 - \$499,999

Alcoa Foundation

Amgen Foundation

Bayer USA Foundation

Bechtel Group Foundation

Educate Texas

Ferrovial Agroman

Fort Polk Progress

George Kaiser Family Foundation, a supporting organization of Tulsa Community Foundation

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La Posada Community

NEC Foundation of America

NTE Mobility Partners, LLC

The Radler Foundation

RGK Foundation

Sarah and Ross Perot, Jr. Foundation

Sid W. Richardson Foundation

Southern Oklahoma Memorial Foundation

Tortora Sillcox Family Foundation

United Way of Metropolitan Dallas

Webber

\$50,000 - \$99,999

The Ryan Foundation

NextEra Energy, Inc.

United Way of Tucson and Southern Arizona

\$10,000 - \$49,999

Bank of America

The Buhl Foundation

The Dallas Foundation

Farmers Investment Co. and The Green Valley Pecan Company

Grubhub

Jim Click Automotive Team

John and Linda Macdona

The Miles Foundation

Rainwater Charitable Foundation

Rosemont Copper Company

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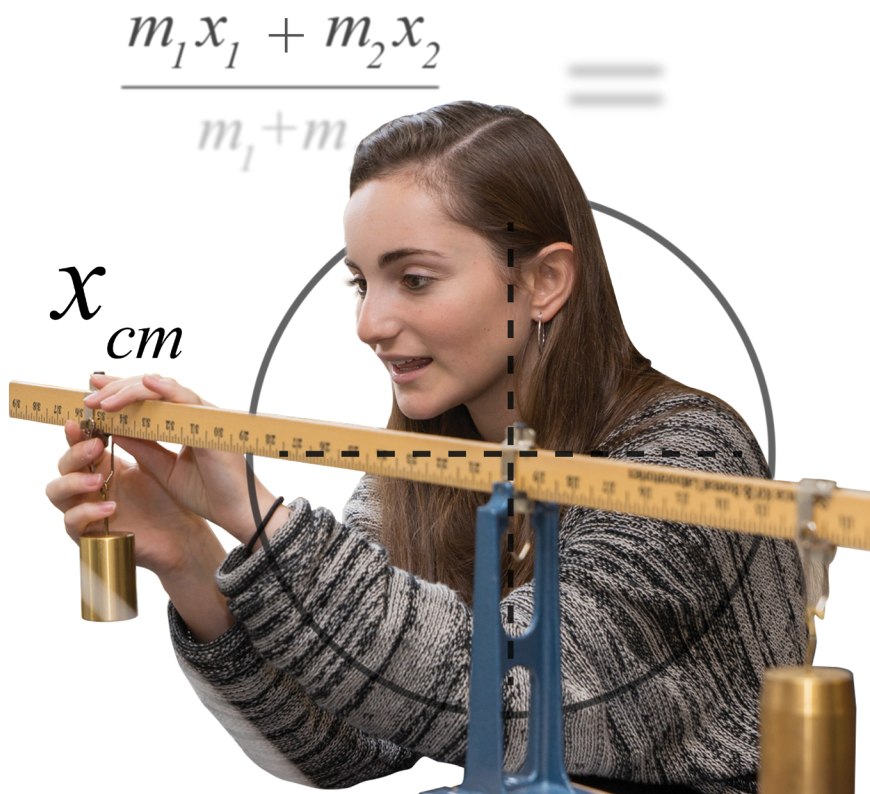
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