

Transforming Math & Science Education





Before we can invent the future, we have to reinvent education.

The United States has always excelled at embracing technology and unleashing innovation. But as the rest of the world races ahead, our students have fallen behind in math and science. Recent international comparisons show that the U.S. ranks 25th in math and 17th in science.*

What's at risk is America's knowledge capital, which fuels innovation and economic growth. Fortunately, something is being done to stop the slide.

The movement is under way to transform education.

* Organization of Economic Cooperation and Development

America's best minds have developed a new formula for success.

Leaders in American business, education, and science joined forces in 2007 to create the National Math and Science Initiative (NMSI), a nonprofit organization designed to transform education in the United States.

Our areas of focus:

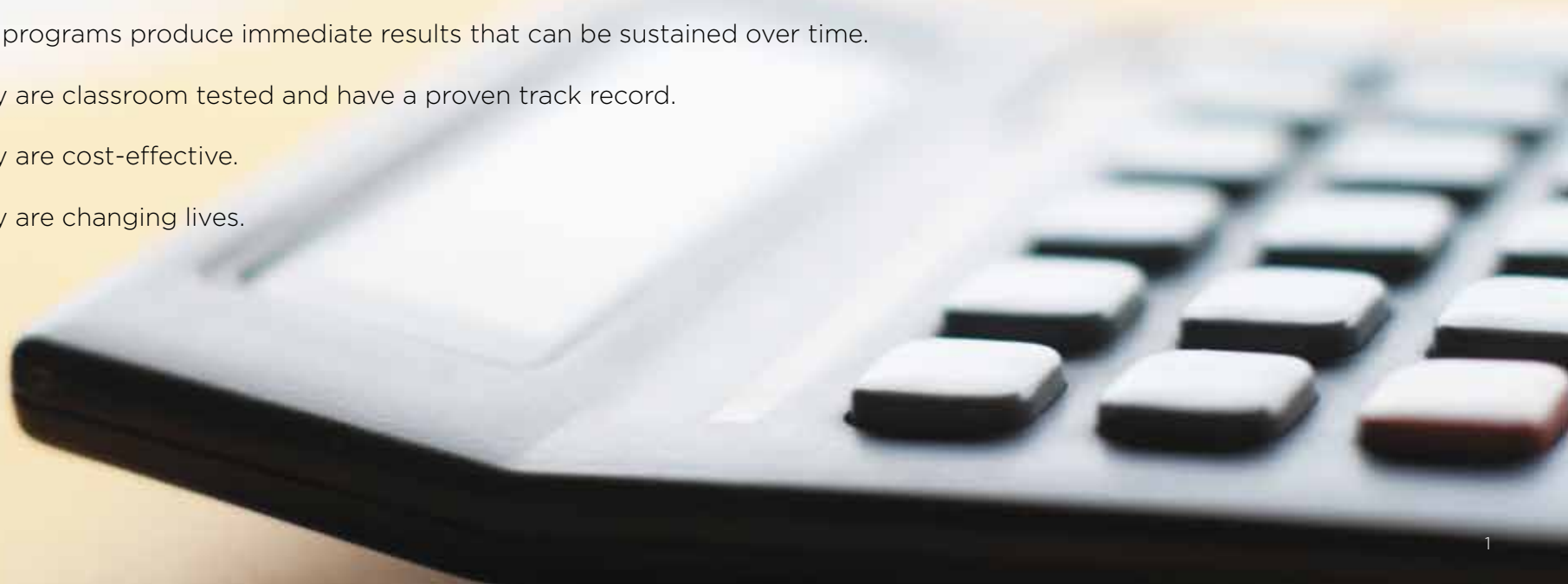
- Training K-12 teachers to inspire students to succeed in more rigorous courses.
- Recruiting more college students to become dedicated math and science teachers.

Our programs produce immediate results that can be sustained over time.

They are classroom tested and have a proven track record.

They are cost-effective.

They are changing lives.



Transform:

To alter, change, modify, cause to change; make different; cause a transformation; as in "The advent of the automobile may have altered the growth pattern of the city"; "The discussion has changed my thinking about the issue"; "This class has inspired me to go to college."



Letter From the Chairman of the Board

Imagine a school where students cheer wildly at pep rallies for students who scored top marks in chemistry and calculus.

Then imagine a school where low-income students do so well on the toughest Advanced Placement (AP) courses that they earn scholarships to the best universities in the country.

And think what it would be like to have a school where girls are encouraged to master physics and engineering, so they can pursue careers in cutting-edge science fields.

Those scenarios aren't imaginary.

They are happening today in schools across the country, thanks to the progress being made by the National Math and Science Initiative (NMSI).

In just five years, NMSI has planted math and science programs in schools and universities that are raising academic rigor and achievement across the United States as a result.

As this Annual Report shows, NMSI is transforming science, technology, engineering, and math (STEM) education in America.

- In January, NMSI merged with the Laying the Foundation organization, so that by joining forces we can train more teachers from middle school through high school. We've already trained nearly 50,000 teachers who are inspiring the next generation of students.
- In August, we merged with AP Strategies (APS), which has pioneered Advanced Placement teacher training and student support in Texas. APS targets rural and urban school districts with an 80-95 percent minority population and an 80-95 percent free/reduced lunch population — and gets terrific results. Our AP program is patterned after this pioneering program, so our merger is a homecoming of sorts.
- This fall, we expanded our Initiative for Military Families. This new outreach is bringing quality AP courses to more students from families serving in the U.S. military.

- In addition, we have expanded the highly successful UTeach program to prepare new math and science teachers. UTeach is now being implemented in 34 universities in 16 states — and is poised for major expansion.

The results from these programs continue to be impressive — and transformative.

We are pleased to report that students in our AP program achieved a 79 percent increase in qualifying scores in math, science, and English in just one year — while the rest of the U.S. had a 7.3 percent one-year increase.

What's more, this program increased the qualifying scores earned by African American and Hispanic students by 107 percent — in their first year in the program. We have energetically recruited female students to take more STEM subjects and have given them the skills to succeed. As a result, the qualifying scores earned by female students in our AP math and science courses have been eight to 10 times the national rate for the last four years.

These results are transforming public school culture by raising the academic bar much higher. And yes, when the results are announced, our AP students

are honored at pep rallies with marching bands and cheerleaders, just like the football and basketball teams — only our students racked up winning scores in biology, calculus, and computer science.

At the same time, our popular UTeach program has reached a record enrollment of more than 6,000 students. Experience has shown that 88 percent of these talented and brainy STEM majors will go on to teach in public schools when they graduate. They are on their way to providing a needed infusion of math and science expertise into American classrooms, the kind of STEM oxygen that our public schools need.

While this success is certainly encouraging, there is much more to do. Recent SAT and ACT results show that more than half of our country's college-bound seniors are not college ready. Only 43 percent of SAT takers in the class of 2012 graduated with the academic preparedness associated with college success. The ACT results also confirmed a troubling achievement gap among students by race and ethnicity: only 13 percent of Hispanic and five percent of African American students met the college-ready benchmarks.

We must do better.

Our country's future depends on continuing to raise academic rigor in our public schools. The stakes are high. Economic data shows that a million additional STEM graduates will be needed over the next 10 to 15 years to fill economic demands. National security experts are warning that the human capital shortage in math and science is threatening our cyber security, saying that filling the security manpower needs is "like trying to field a major league baseball team when there's no T-ball team."

The warning signs are clear: We must prepare more of America's young people for a more challenging world, to compete for jobs and to safeguard our national infrastructure. *NMSI is showing the way.* With your support, we can do even more to transform our schools and transform STEM education in the United States.



Tom Luce
Chairman and Founding CEO, NMSI
Former Assistant Secretary,
U.S. Department of Education

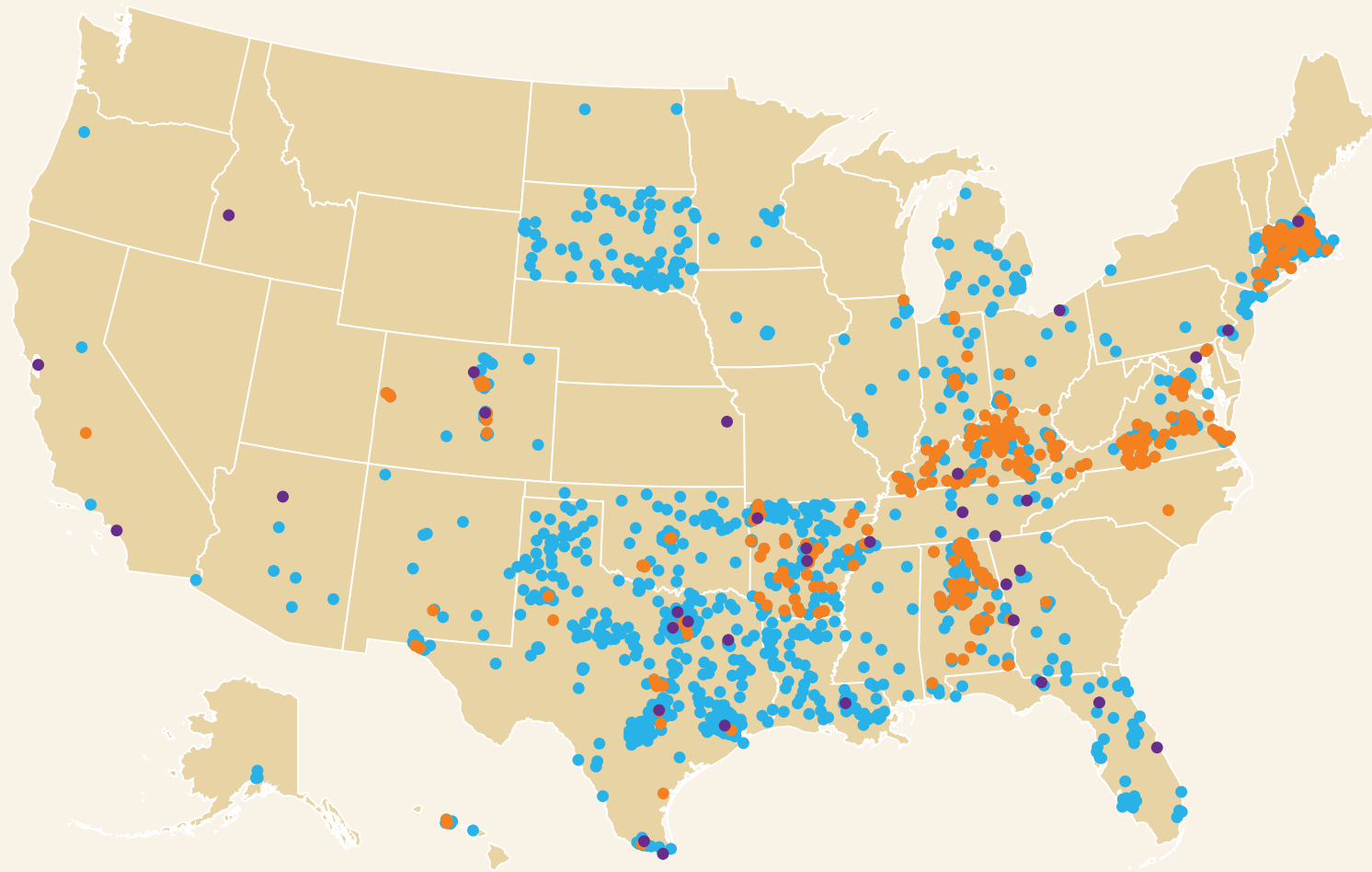


2,100,000

More than 2.1 million students have been impacted by NMSI programs already.

NMSI Programs in 29 States and Growing

NMSI PROGRAM LOCATIONS, 2012



● Teacher Training Program
Over 60,000 teachers
trained in 33 states

● AP Program
462 schools in
18 states

● UTeach Program
34 universities in
16 states

Transforming Schools



How We Make a Difference

ADVANCED PLACEMENT COURSEWORK IS THE KEY

The AP curriculum is the best indicator available of whether students are prepared for college-level work.

- Students who master AP courses are three times more likely to graduate from college.
- For minority students, that multiplier is even greater: African American and Hispanic students who succeed in AP courses are four times more likely to graduate from college.

NMSI's Advanced Placement program is now boosting academic achievement in 462 schools in 18 states — from Connecticut to California.

THE PROCESS OF ACHIEVEMENT

How does our AP program make a difference?

- Students in our program learn to set goals.
- They spend more time on task.
- Their teachers receive specialized training and classroom resources.
- Both students and teachers are given incentives to work smart and produce results. The return on that investment is many more young Americans equipped with the skills that today's high tech economy demands.



EXPANDING THE PARAMETERS OF SUCCESS

NMSI has more than doubled the number of high school students taking AP math and science in participating schools.

- NMSI has also more than doubled the number of qualifying scores in those subjects.
- That means we are opening doors to college-level courses for a much broader array of students than ever before — rich, poor, rural, urban, suburban, African American, Hispanic.*

** A score of three or higher on a five-point scale is considered a qualifying score and can make a student eligible for college credit.*

A Very Successful Mission

Just as the Apollo 11 moon landing inspired young Americans to want to become astronauts in the 1960s, our programs are inspiring more young Americans to reach higher and work harder in critical subjects like chemistry, biology, physics, and computer science.

The results speak for themselves.

1.5%

The schools in our Advanced Placement (AP) program make up just 1.5 percent of all schools in the United States.



7.4%

And yet these schools alone account for 7.4 percent of the country's overall increase in qualifying math, science, and English AP exam scores.





“All of my teachers are incredible. I’ve had teachers that pushed me to learn extra material. I’ve had AP English, history, and calculus teachers that would work just as hard as I did, and it reinforced my belief that I could pass the exams.”

AP Student

Multiplied Across the Country

After four years of solid performance, we've established that quality programs can be taken to scale in all manner of school environments, large and small, rural, urban.



STUDENT SUCCESS

THE MULTIPLIER EFFECT

We've more than doubled the number of students taking Advanced Placement classes in math, science, and English in participating schools.

This means we are opening doors to college success for underserved student populations who have not had the encouragement to tackle challenging coursework in math and science before.



RAISING QUALIFYING
SCORES BY

79%

EXPLOSIVE AND SUSTAINABLE RESULTS

Our AP program is consistently producing results the first year — raising qualifying scores on AP math, science, and English exams by an average of 79 percent.

And we have shown those results can be sustained over time by achieving a 137 percent increase in qualifying AP scores over three years. This reaffirms that with strong programs and strong oversight, scaling up can move the needle in public education.

137%

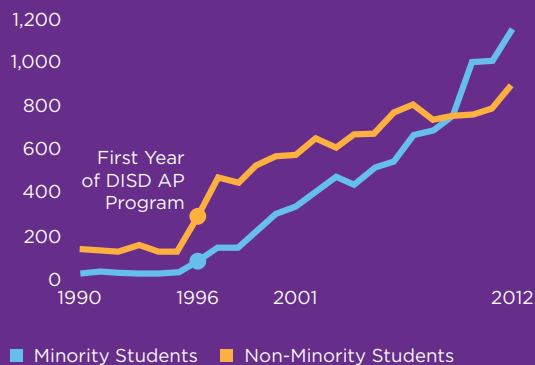
INCREASE

Proof Positive in Measurable Results

 **8X** INCREASE

Gains for traditionally underrepresented groups are even more impressive. Qualifying scores for African American and Hispanic students average an increase of 107 percent in AP math, science, and English the first year of the program. That is eight times the national average.

Closing the achievement gap for underrepresented groups.





We are boosting STEM success for female students



The average one-year increase in qualifying scores in AP math and science for female students, who historically have not been encouraged to pursue those subjects, is 84 percent, which is 12 times the national average.

84%

INCREASE



Producing a Ripple Effect

Our AP program is changing the public school culture in other critical ways:

- **By providing customized training for AP teachers**, we are enabling not only their AP students to benefit, but also the students in their other classes, impacting thousands of students throughout the school over time.
- **By providing resources** for state-of-the-art lab experiments and learning software, we are raising the caliber of hands-on learning in schools.
- **By providing an exciting new model for public-private cooperation**, we are rallying greater involvement in math and science education from energy companies, aerospace corporations, banks, communications giants, and construction firms.
- **By preparing students so that they are career and college ready and graduate** on time, we are saving thousands of dollars in tuition. Our students are able to seek challenging majors, earn more advanced credits, and have lower remediation rates and higher GPAs than non-AP students.
- **By getting school districts to recommit to rigor and excellence for all students**, we are seeing schools in our program states beginning to close the achievement gap among traditionally underrepresented students, including African Americans and Hispanics. For example, Project Opening Doors in Connecticut had five of the top 10 schools in qualifying scores for African Americans and Hispanics in AP math, science, and English in 2012 for the entire state.

ACCELERATED STATES

When we go into a state, we lift the entire state's AP performance, and as a result they lead the country. The first six states to implement our AP program all finished in the top 10 nationally for percentage increase in passing math, science, and English AP scores since 2008. There is no other formal program in the country that has produced these types of results.

Those rankings include:

- 1 Alabama
- 2 Kentucky
- 3 Arkansas
- 8 Virginia
- 9 Connecticut
- 10 Massachusetts





53/53

UNLEASHING UNTAPPED POTENTIAL

In a highly diverse Massachusetts high school in a struggling rust-belt city, all 53 of the students who were taught AP chemistry by a NMSI-trained teacher earned qualifying scores on their AP chemistry exams — a grand slam achievement under any circumstances, but especially meaningful for students who have not had the benefit of AP courses before. Those students now have a realistic chance to succeed in college, and many will be the first in their families to get a college education.

MORE EVIDENCE OF EXCELLENCE

From coast to coast, NMSI is raising the bar in academic achievement and transforming school cultures in the process. Here are just a few examples:

- **In Hawaii**, the first four high schools to implement the NMSI AP program — Mililani, Radford, Campbell, and Leilehua High Schools — accounted for 82 percent of the state's increase in qualifying AP math, science, and English scores in Hawaii. The four schools ranked 1st, 2nd, 3rd, and 5th in the increase in the number of qualifying math, science, and English scores in the state.

- **In Georgia**, Howard High School students in the first year of the NMSI program earned 87 qualifying scores on AP math, science, and English exams, a 156 percent increase from the previous year. The NMSI program boosted the number of Howard High students taking the rigorous AP math, science, and English courses from 133 in 2011 to 363 in 2012, a 173 percent increase in enrollment.

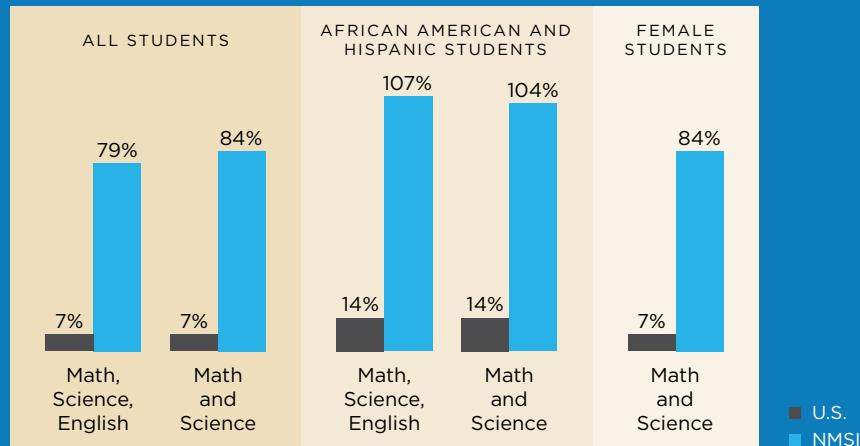
- **In Virginia**, two high schools in the NMSI AP program, Green Run and Salem, produced a combined 64 percent increase in qualifying exam scores in AP math, science, and English, which is nine times the national increase. Since the NMSI program was launched in the schools, enrollment in AP math, science, and English has increased 59 percent from 394 students to 625 students.

- **In Oklahoma**, two of the first two high schools implementing the NMSI AP program — Carl Albert and Eisenhower High Schools — have produced a combined 69 percent increase in qualifying scores on AP* math, science, and English exams in the first year of the program — 26 times the rest of the state's average. The two NMSI schools accounted for 35 percent of the state's increase in qualifying AP math, science, and English scores. Eisenhower High School led the state in qualifying scores in AP math, science, and English among African Americans and Hispanics. Carl Albert High School was one of the state's top achievers, with a 254 percent increase in qualifying scores in AP math and science exams.

**Advanced Placement, Pre-AP, and AP are registered trademarks of the College Board.*

We Make a Dramatic Difference in One Year

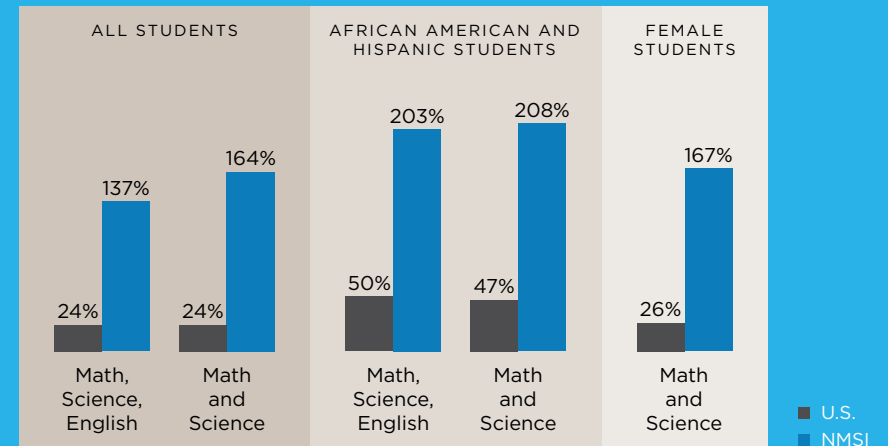
Percentage increase in scores of three or greater for 294 National Math and Science schools in the first year of the program



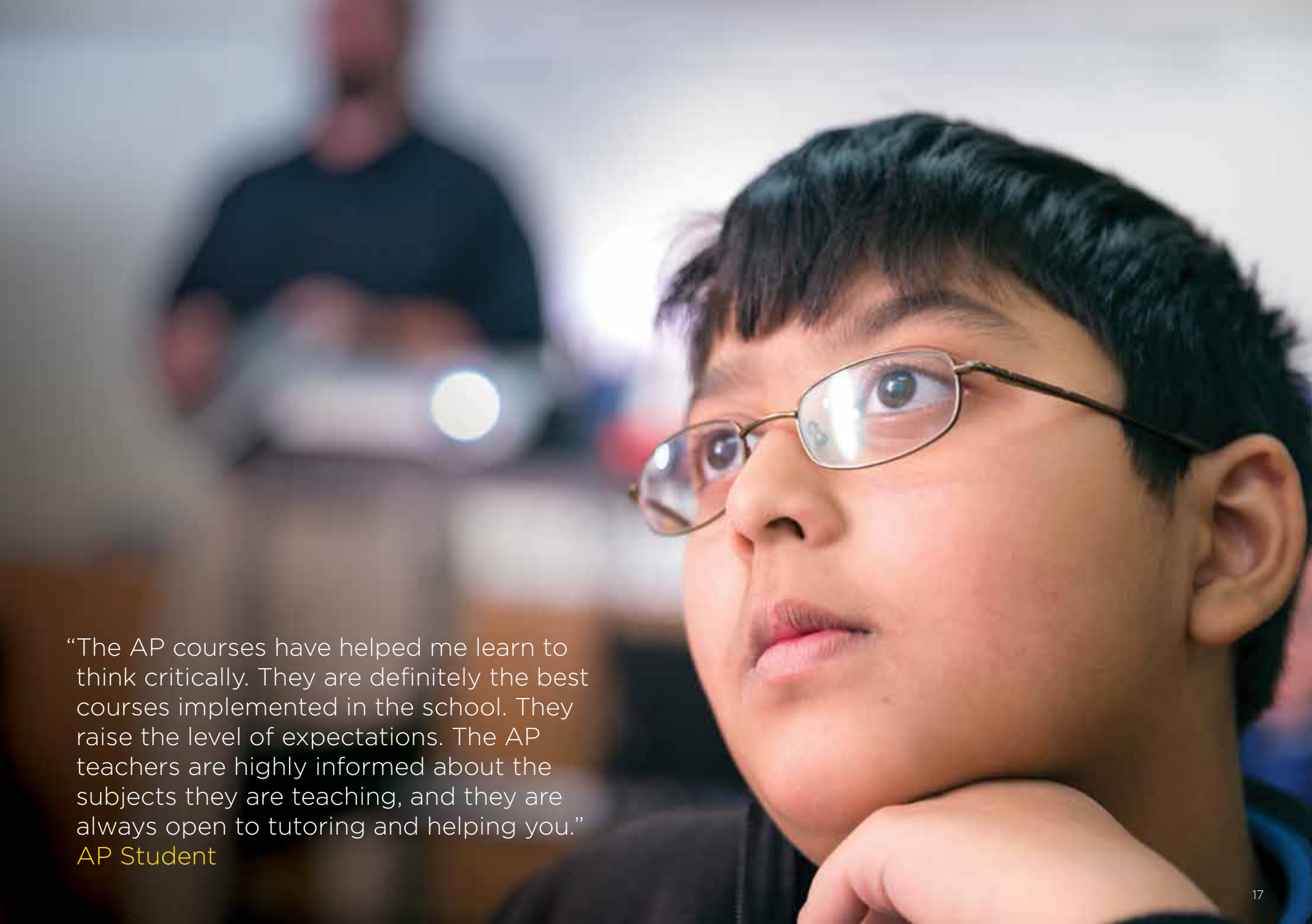
Source: College Board.

And Continue to Sustain That Difference After Three Years

Percentage increase in scores of three or greater for 136 National Math and Science schools during three years in the program



Source: College Board. 63 schools started in 2008, 73 schools started in 2009, 88 schools started in 2010, and 70 schools started in 2011.

A young man with dark hair and glasses is shown in profile, looking upwards and to the right with a thoughtful expression. He is resting his chin on his hand. The background is blurred, showing a classroom setting with other people.

“The AP courses have helped me learn to think critically. They are definitely the best courses implemented in the school. They raise the level of expectations. The AP teachers are highly informed about the subjects they are teaching, and they are always open to tutoring and helping you.”

AP Student



Focus on Military Families

Our military service members sacrifice so much for this country — a great education for their children should not be one of those sacrifices.

In 2010, with generous funding from the Lockheed Martin Corporation, NMSI began transforming schools that serve military families, and the results have been stunning. In 2012, schools in our program for military families were state leaders in the increase in qualifying AP math, science, and English scores.

2=35% INCREASE

For example, our two schools in Oklahoma accounted for 35 percent of the entire state's increase in qualifying AP scores while our four schools in Hawaii accounted for 89 percent of the entire state's increase in qualifying AP scores.

How does NMSI produce these outstanding results for these students from military families that serve our country?

By providing consistent, exceptional math and science education in high schools serving military bases in the U.S. The program brings college-level coursework to students through the highly regarded and highly effective Advanced Placement curriculum. Because the AP courses are standard across the country, this program provides excellence and continuity for students whenever their families are transferred.

64% INCREASE

The 29 military impacted schools in our program saw a 64 percent increase in qualifying math, science, and English AP scores — nine times the national average.

81% INCREASE

African American and Hispanic students in the program saw an 81 percent increase in qualifying math, science, and English AP scores, and females saw a 113 percent increase.

In Fall 2012, the program expanded to 52 military impacted high schools in 15 states. There are still over 200 schools that need this program. With additional support, this program can be expanded to include the majority of public high schools near military bases.

Why bring AP to military impacted schools?

Expanding participation in AP courses not only gives students from military families the opportunity to earn college credit, but also significantly increases their chances of succeeding in college. Students who take an AP course are three times more likely to complete their college education and find success in careers, whether in the private sector or in the military.



Transforming Teaching



A New Equation for Excellence

How do you strengthen teaching in America?

It's simple: Give existing teachers top-notch training that is custom tailored for them and their schools. Then keep the learning process going by providing ongoing professional support and encouragement.

The National Math and Science Initiative is leading the country in such specialized training today. We are strengthening the existing teaching corps through the professional training that is at the heart of our K-12 programs.

60,000

To date, more than 60,000 teachers have been trained by NMSI programs.



Training for Teachers by Teachers

Our promise is this: NMSI is dedicated to providing the very best content-based, pedagogy-driven, teacher-to-teacher coaching from grades K-12. That training is supported by rigorous classroom-ready lessons and web-based resources to improve the quality of math, science, and English instruction.

CREATING THE MOST EFFECTIVE SOLUTIONS

Teachers participating in the NMSI K-12 training programs can count on individualized support:

- **Customized training** to provide what teachers need to teach effectively.
 - **Data-driven solutions** based on analysis of class scores and student demographics in their particular school.
 - **Customized tutorials** based on issues that concern the teachers.
- **Tips from trainers who have been successful** in similar scholastic environments.
 - **Training sessions that integrate the latest technology**, so teachers know how to use the best available tools, from cutting-edge software to exciting lab experiments.
 - **Online resources include screencasts of teaching sessions**, so students can replay videos of specific lessons.
 - **Online forums** with content support develop a teacher support community.



NMSI Is Leading the Way in Common Core State Standards Implementation

NMSI teacher training programs are focused on increasing college readiness for all students. Our training, lessons, and classroom resources are aligned to new standards, providing teachers the tools they need today to help their students succeed on new assessments in the 2014-2015 school year.

In 2012, NMSI was unanimously selected by the Partnership of Assessment of Readiness for College and Careers (PARCC) to create and lead the Educator Leader Cadres (ELC). NMSI is training the educators participating in the ELC to become experts in Common Core and the assessments, so that they can train educators in their home states.

NMSI has completed Common Core training for teachers across the country and was recently selected to train college of education professors in Tennessee on the new standards.



A New School of Thought for Future Teachers, the UTeach Program

Our UTeach program is a successful new template for teacher education in American universities.

Thanks to UTeach, we are able to recruit talented and gifted students who are majoring in math and science — some of our country's best and brightest — to consider teaching as a career option. UTeach is instrumental in enabling us to fill the growing gap in qualified science and math teachers.

CREATING THE CATALYSTS FOR SUCCESS

Originated at The University of Texas at Austin in 1997, the UTeach program enables students majoring in STEM fields such as engineering, physics, biology, chemistry, and computer science to receive full teaching certification without adding time or cost to their degrees.

The core elements include:

- **Active recruitment and incentives**, such as offering the first two courses for free.
- **A compact and flexible degree program** that allows students to graduate in four years with both a degree and teaching certification.
- **A strong focus on acquiring deep content knowledge** in math and science, in addition to research-based strategies tailored to teaching math and science effectively.
- **Early and intensive field teaching experience**, beginning in the UTeach students' first semester.
- **Continuous support** provided by experienced teacher leaders.
- **Comprehensive induction support** to help graduates transition to their teaching assignments.



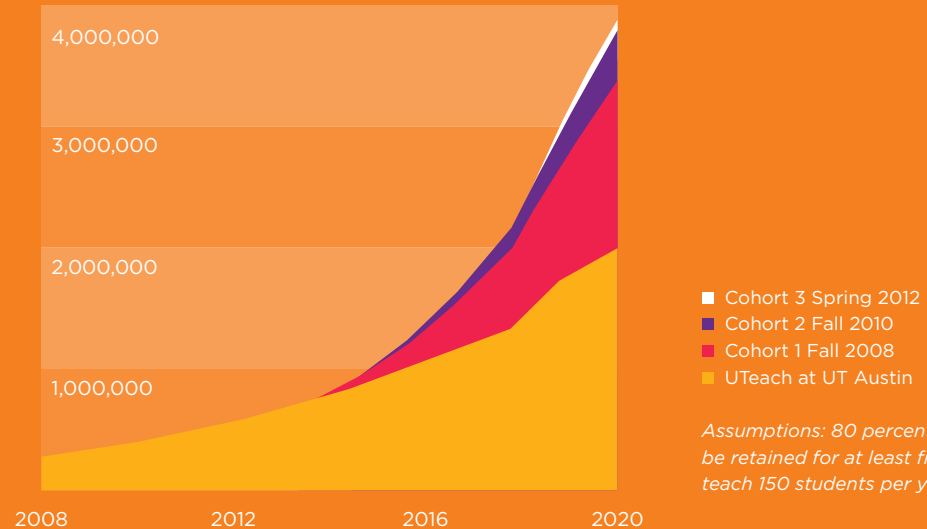


Surveying the Shortfall

Best estimates are that our country will need 100,000 more math and science teachers by 2020, just seven years from now.

- More than a third of new math and science teachers leave the classroom after only a few years, perpetuating the shortage of qualified STEM teachers.
- In a stop-gap attempt to fill the vacancies, many districts have to assign teachers who have never majored or minored in math and science to teach those courses.
- In the crucial middle school preparatory years, more than two-thirds of 5th-8th graders are being taught math by teachers without a math degree or certificate. And more than 90 percent of those same students are being taught physical sciences by teachers without a physical science degree or certificate.

Projected Number of Students Taught by UTeach Graduates Nationally



Designing Career Paths to Bridge the Gap

UTeach addresses national needs by producing teachers who are confident and competent in their subject matter — and who want to stay in the classroom.

Some 88 percent of UTeach graduates go on to teach in math and science classes, often in high-needs schools. And five years later, 80 percent are still teaching, compared with 65 percent nationally.

- **The innovative UTeach model fosters new collaboration** between schools of natural sciences and education, breaking down barriers between the traditional department “silos.”
- **Partnerships are also being created with local school districts**, providing UTeach students with field experience early in their college studies and providing school districts with fresh talent.
- **UTeach is establishing a new paradigm for schools of education** by putting students in front of classrooms throughout their college program, rather than during their final semesters.
- **UTeach master teachers are leading the way** by infusing the most effective techniques for teaching math and science into education courses.

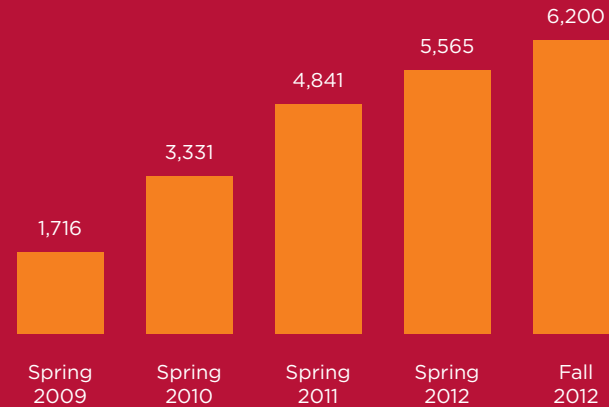


Charting Continuous Growth

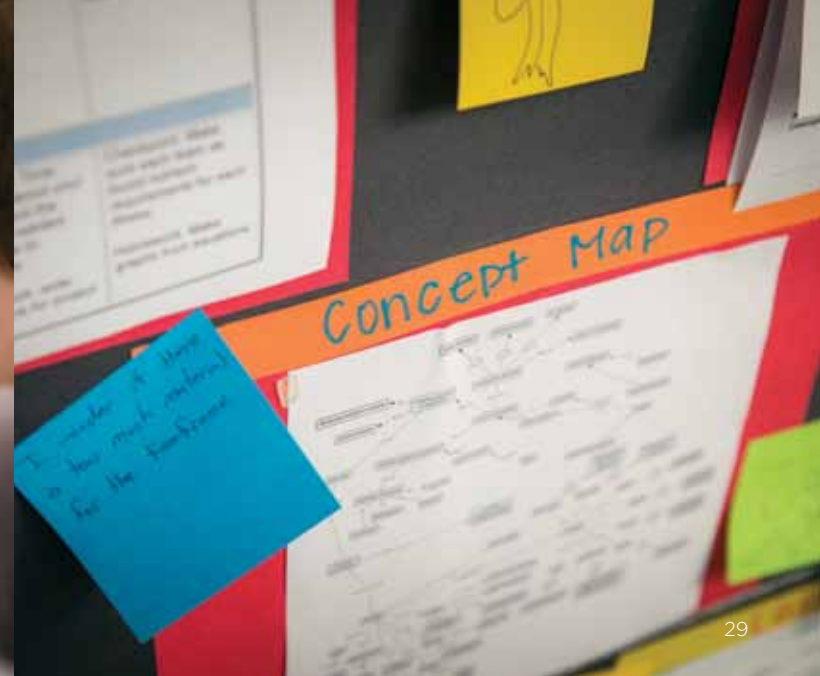
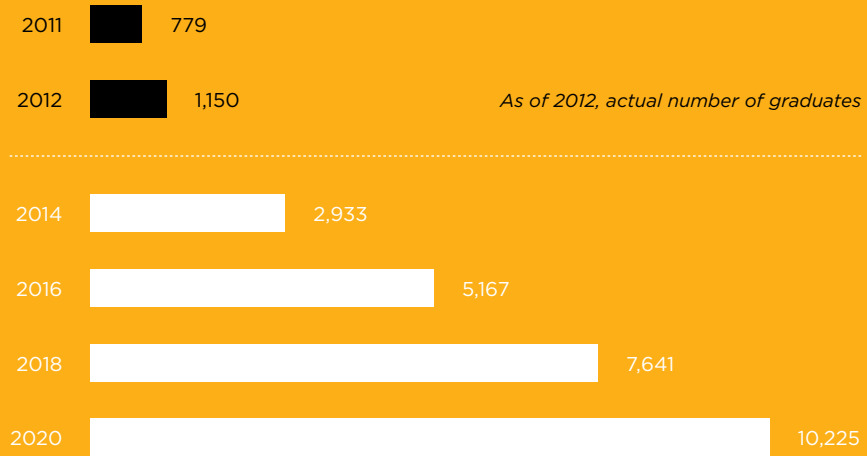
In just five years, this innovative program has been embraced by 34 universities and has grown to more than 6,000 students.

- More than **1,150** college students have graduated from the UTeach program as of 2012.
- An estimated **10,225** teachers will graduate by 2020 from the 34 universities currently participating.
- Significant growth in the UTeach program is anticipated in the coming year, which means even larger numbers of specially trained math and science teachers will be infused into school districts across America.
- UTeach is partnering with the **Clinton Global Initiative** and the **Carnegie Corporation** in the “100Kin10” project, which seeks to recruit 100,000 new math and science teachers in the next 10 years.
- Because of the UTeach program’s growing success in producing a new generation of content-trained teachers, UTeach was spotlighted by **NBC Education Nation** in September as part of a nationwide focus on solutions that can improve public education.

Growth in UTeach Enrollment National Application



UTeach Program Graduates (Cumulative Count)





2012: A Year in Review

JANUARY

- NMSI announced the appointment of **Carolyn Bacon Dickson**, Executive Director of the O'Donnell Foundation, as a member of its board of directors.
- Laying the Foundation, NMSI's pre-AP and AP training program, launched the *Flipping the Classroom Blog*, which recaps experiences of high school teachers implementing the flipped classroom model of teaching.

FEBRUARY

- NMSI was spotlighted by the **White House** for its role in expanded efforts to prepare 100,000 new STEM teachers over the next decade as part of the "100Kin10" coalition.
- Arimus Wells, a student in NMSI's **Initiative for Military Families** in Colorado, was a special guest at a White House event designed to spotlight the need for private-sector investment in successful math and science programs.

MARCH

- The **National Bureau of Economic Research** released a study which shows that students who are part of the AP program are more likely to attend college in greater numbers, remain in college past their first year, and secure employment.
- **Bernard Harris**, NMSI board member and first African American in space, was featured on the Bill & Melinda Gates' website *Impatient Optimists*, where he discussed the need for more STEM rock stars.

APRIL

- NMSI's AP program was expanded to public schools in **Colorado** and **Indiana**, thanks to the Department of Education's "Investing in Innovation" (i3) grant program and matching funds raised by NMSI.
- **ExxonMobil** broadcast a series of commercials highlighting NMSI and the need to inspire more American students to succeed in STEM during the **2012 Masters Golf Tournament**.

MAY

- NMSI's acclaimed **U Teach** program reached an enrollment milestone of 5,500 students and 800 program graduates. The announcement was made at a high-profile STEM teacher symposium, "America's Future STEMs on Great Teachers: Are We Ready?," which NMSI hosted at the National Press Club in Washington, D.C. Featured panelists included NMSI board member **Dr. Nancy Grasmick**, former Maryland Superintendent of Schools.
- The U Teach Institute hosted their 6th annual conference in Austin, TX, which drew more than 400 participants. One of the featured speakers was **Dr. Steve Cantrell**, Senior Program Officer for research and data at the Bill & Melinda Gates Foundation.
- NMSI honored 23 outstanding teachers from NMSI's AP program at a special event in Washington, D.C. The teachers were honored for helping to expand the number of public school students taking and succeeding in AP math, science, and English classes. **William H. Gray, III**, former U.S. Congressman and former President/CEO of the United Negro College Fund, delivered the keynote address.

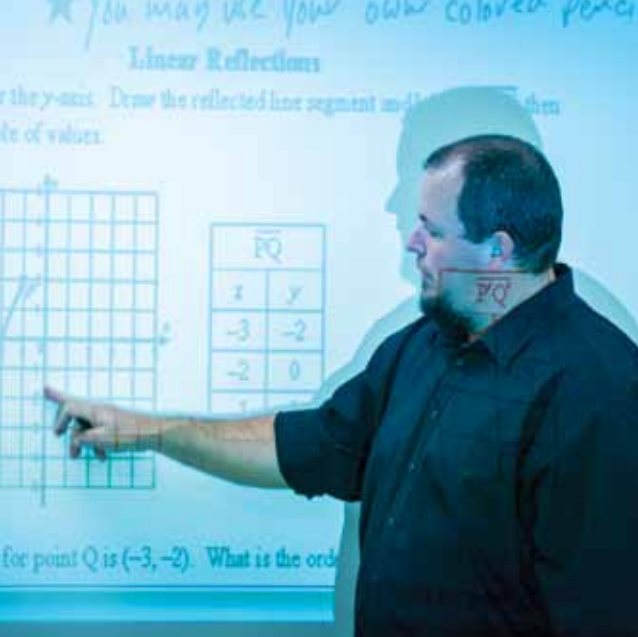
JUNE

- NMSI co-hosted the **U.S. News STEM Solutions Summit**, where Tom Luce was inducted into the STEM "Leadership Hall of Fame" by U.S. News & World Report and where former NMSI CEO Dr. Mary Ann Rankin was named one of the 100 Women Leaders in STEM.
- NMSI was unanimously selected to lead the Educator Leader Cadres (ELC) for the **Partnership of Assessment of Readiness for College and Careers (PARCC)** and to use its proven, peer-to-peer training model to provide Common Core-driven, content-focused, and pedagogy-based instruction to the ELC members.
- NMSI Senior Vice President Gregg Fleisher, was a featured speaker at the annual **Military Child Education Coalition Conference**, "Military Kids: Shining from Sea to Sea," in Grapevine, TX.

JULY

- NMSI joined all of America in mourning the loss of **Dr. Sally K. Ride**, the legendary astronaut and first American woman in space. Dr. Ride was also one of the NMSI's founding board members and a driving force behind the mission of improving math and science education in the U.S.
- NMSI was featured in a full-page ad, sponsored by ExxonMobil, in the program for the recent AP National Conference.





AUGUST

- **Texas Instruments** spotlighted NMSI programs in an ad in a special STEM section of Bloomberg/Businessweek.
- **Scientific American** showcased the UTeach program in their September issue, which focused on how to build a better science teacher.
- The UTeach program was officially launched at **The University of Texas at Brownsville**, allowing STEM majors to receive their teacher certification while earning their degree.
- NMSI's teacher training program expanded to **Alaska** for a first Summer Institute there.

SEPTEMBER

- NMSI announced the merger with the highly successful **Advanced Placement Strategies (APS)**, officially integrating their programs to prepare Texas high school students to succeed in pre-AP and AP courses.
- NMSI's **AP results** were announced, and they confirmed immediate and dramatic improvements in math, science, and English scores for students enrolled in NMSI's AP program for the fourth year in a row.
- **NBC's Education Nation** spotlighted NMSI programs in their weeklong series. Tom Luce and board member Bernard Harris were featured on a panel discussion about the importance of teachers.

OCTOBER

- NMSI Executive Vice President Dave Saba spoke on teacher training at the **Triangle Coalition's 12th Annual STEM Education Conference** in Arlington, VA.
- Tom Luce was a featured speaker at the **Aeronautics and Aerospace Conference** in Dallas, TX.

NOVEMBER

- **Mass Math + Science Initiative** released a study that proves students who take AP classes attend college at higher rates and are more prepared for college courses than students who do not take AP classes. This holds true even if the students in the program do not pass their AP exams.
- Three new board members were appointed to NMSI's board of directors, including **David Coleman**, President and CEO of the College Board, **Tom Arseneault**, Executive Vice President of Product Sectors and Chief Technology Officer of BAE Systems, and **Linda Mills**, Corporate Vice President and President of Northrop Grumman Information Systems.

DECEMBER

- The College Board selected for its **AP Honor Roll** a total of 539 U.S. public school districts, which achieved increases in access to AP courses and improved qualifying scores on AP exams. Thirty-two of the school districts selected are participating in NMSI's AP program.

“It’s really an advantage to go into the classroom right away and work with master teachers who have expertise you can benefit from.”

UTeach Student



“The rigorous training not only taught me the art of math and science, but has helped me find new ways to increase my awareness through hands-on activities.”

AP Student

Factor Yourself Into the Equation

YOU CAN MAKE A DIFFERENCE

Help us multiply our success across our nation. We are off to a great start, but we need more allies for this crucial national mission.

You can get involved by:

- **Making a donation.** Help invest in America's future. Donations from corporations, foundations, and individuals are needed to move math and science education forward.

- **Bringing our program to your school or area.** Encourage your state leaders, school leaders, or university leaders to implement NMSI programs in your area.
- **Supporting existing NMSI programs in your area.** Local donations, mentors, and in-kind support will leverage the impact of NMSI grants close to home.
- **Contacting government officials.** Call on your governors, state education commissioners, and members of Congress to support science, technology, engineering, and math (STEM) as education priorities.



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IN MEMORIAM

A Farewell Salute to Dr. Sally K. Ride

The National Math and Science Initiative joins all of America in mourning the loss of Dr. Sally K. Ride, the legendary astronaut and first American woman in space. Dr. Ride died July 23, 2012, at the age of 61, after a courageous 17-month struggle with pancreatic cancer. She was one of our founding board members and a driving force behind the mission of improving math and science education in the United States. Her dream was to help more young people reach for the stars just as she did.

As her colleagues at NASA stated, “Sally Ride broke barriers with grace and professionalism — and literally changed the face of America’s space program.”

In addition to her history-making career as an astronaut, Dr. Ride had a parallel career as an educator. She was a professor of physics at the University of California, San Diego, and was devoted to inspiring a new generation of young Americans to reach higher. She served faithfully and actively as a NMSI board member.

Dr. Ride was particularly dedicated to encouraging young girls to consider careers in science, technology, engineering, and math. She created Sally Ride Science to provide educational materials about science careers to motivate young students and hosted Sally Ride Festivals across the country that touched the lives of thousands of young girls.

As she often pointed out in her speeches, if you Googled “scientist,” you were more likely to get a picture of a mad scientist than a normal young woman or man. She wanted to make it more “normal” to master chemistry, physics, biology, and calculus — the survival skills for tomorrow.

She would often cite the example of the Russian satellite Sputnik in the 1960s, which inspired the United States’ general public to focus on science and engineering. “It was cool then to be a scientist or engineer,” Ride would say. “We need to make it cool again.” And in many ways, she did.

“Schools in the new National Math and Science Initiative AP program are great examples of the power of quality instruction, more time spent on task and rigorous, content-focused teacher training.”

Arne Duncan, U.S. Secretary of Education

“We have witnessed the remarkable results of the National Math and Science Initiative’s program over the last four years. The program aligns perfectly with our mission of expanding access to rigorous academic programs that foster critical thinking skills and prepare students for success in college and in life.”

*Trevor Packer, Senior Vice President,
AP and College Readiness at the College Board*

“These results are game-changing. I see real student gains. This is what our nation needs — real game-changing ideas. We are pushing for this program to be in all our schools. I mean, who wouldn’t want to have these results?”

*Marilee Fitzgerald, Director,
Department of Defense Education Activity (DoDEA)*

“At JPMorgan Chase, we believe that strengthening education is critical to the progress of our country. We are happy to partner with NMSI and UTeach, who are working to do just that.”

*Kimberly Davis, President,
JPMorgan Chase Foundation*

“We’ve seen the difference that NMSI programs like the Advanced Placement™ Incentive Program and UTeach are making in the lives of young people. These initiatives are vitally important to creating the future workforce on which our country depends. The TI Foundation is pleased to partner with NMSI to help engage students and train teachers, particularly in science, technology, engineering, and math (STEM).”

*Sam Self, Chairman,
Texas Instruments Foundation*

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