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To the United States Senate Committee on
Health, Education, Labor and Pensions
“Effective Strategies for Accelerated Learning”

April 18, 2012

Mr. Chairman and Members of the Committee,

Thank you for this opportunity to participate in the panel discussion on Effective Strategies for Accelerated Learning. I have been asked to describe the work of the Texas AP Initiative and the work of the National Math and Science Initiative.

In doing so, I will emphasize three strategies that we find are fundamental to expanding effective accelerated learning programs in our schools:

- The strategic importance of outstanding teachers
- The success of public-private partnerships to scale up proven programs
- The tremendous leverage for our economy when any student completes high school enters college and earns a degree.

The Texas AP Incentive Program began sixteen years ago. The superintendent of the Dallas Independent School District asked the O'Donnell Foundation to help address a serious problem: too few of its high school graduates were academically prepared to enter college and earn a degree.

Research convinced us that the best predictor of college success is the rigor of courses a student takes in high school. A challenging high school curriculum frequently can overcome the deficits of family background or income.

In response to the Superintendent's request, we set a goal to strengthen math, science and English, and we chose the College Board's Advanced Placement (AP) program. AP classes are college-level courses taught in high school by high school teachers. It was an ideal implementation vehicle because:

1. AP is built on high standards, national exams and measurable results.
2. The College Board provides teacher training jointly delivered by university faculty and master AP teachers.
3. Students who pass AP exams receive college credit at most U.S. colleges and universities. This gives them a head-start as freshmen and generally reduces the cost of tuition.
4. AP classes already existed in many high schools, but were not always being used to full advantage.

The national AP exam is an academic coin that cannot be devalued. This is important for any state and especially Texas with a high minority population (14% African-American and 48% Hispanic) and many rural school districts (39% of Texas' 1235 districts enroll less than 500 students). Colleges know that an Hispanic student in rural South Texas who passes an AP exam is just as academically prepared for college as the Boston Latin School student who passes the same AP exam.

We added three elements to the AP program:

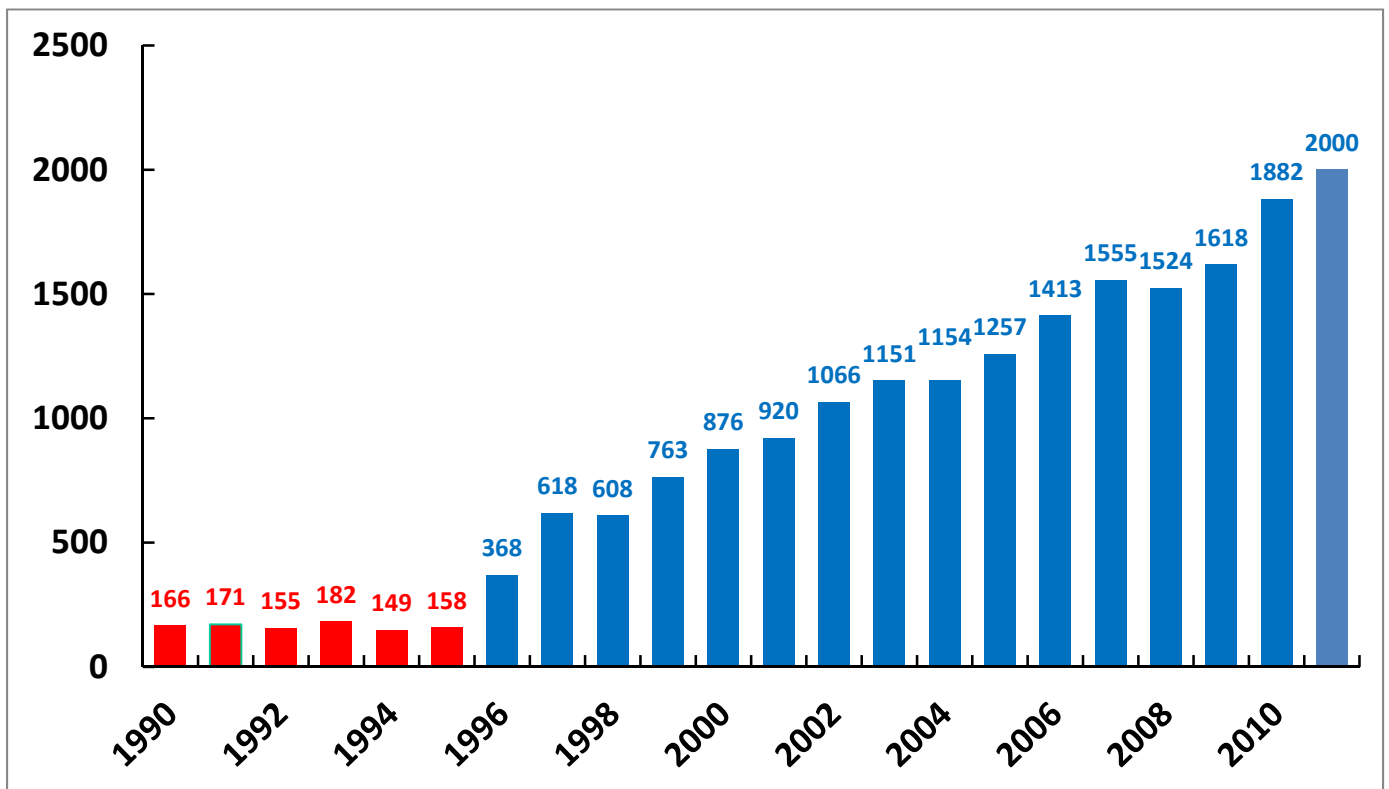
1. Three years of College Board training required for AP teachers.
2. Lead Teachers to provide the academic leadership in their schools and district. They teach at least one AP course; they mentor and support new AP and pre-AP teachers.
3. Financial incentives for teachers and students based on academic achievement. Incentives are paid by private donors and are key to the success of the program. They work because they are based on an objective measurement of performance. Incentives are extra pay for extra work. They accelerate the growth of AP, and help keep good teachers in the classroom longer.

The AP incentive program is voluntary for schools, teachers and students and is open to all.

The Dallas Independent School District (DISD) is the second largest district in Texas. Over ninety percent of its 154,000 students are minority students and many students are from low-income families. Yet, Dallas students have achieved a remarkable record in AP.

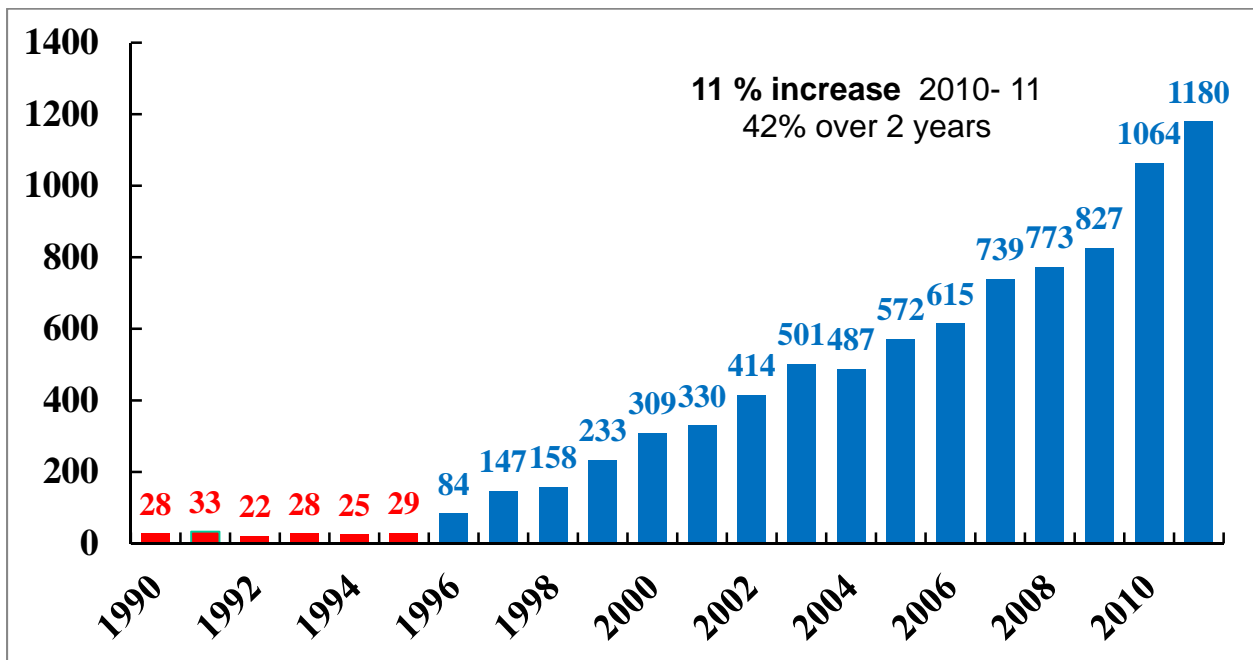
Before the AP incentive program began in 1996, DISD students passed 158 AP exams in math, science and English. Today that number is 2000 and growing.

AP Passing Scores in Dallas ISD - Math, Science, and English



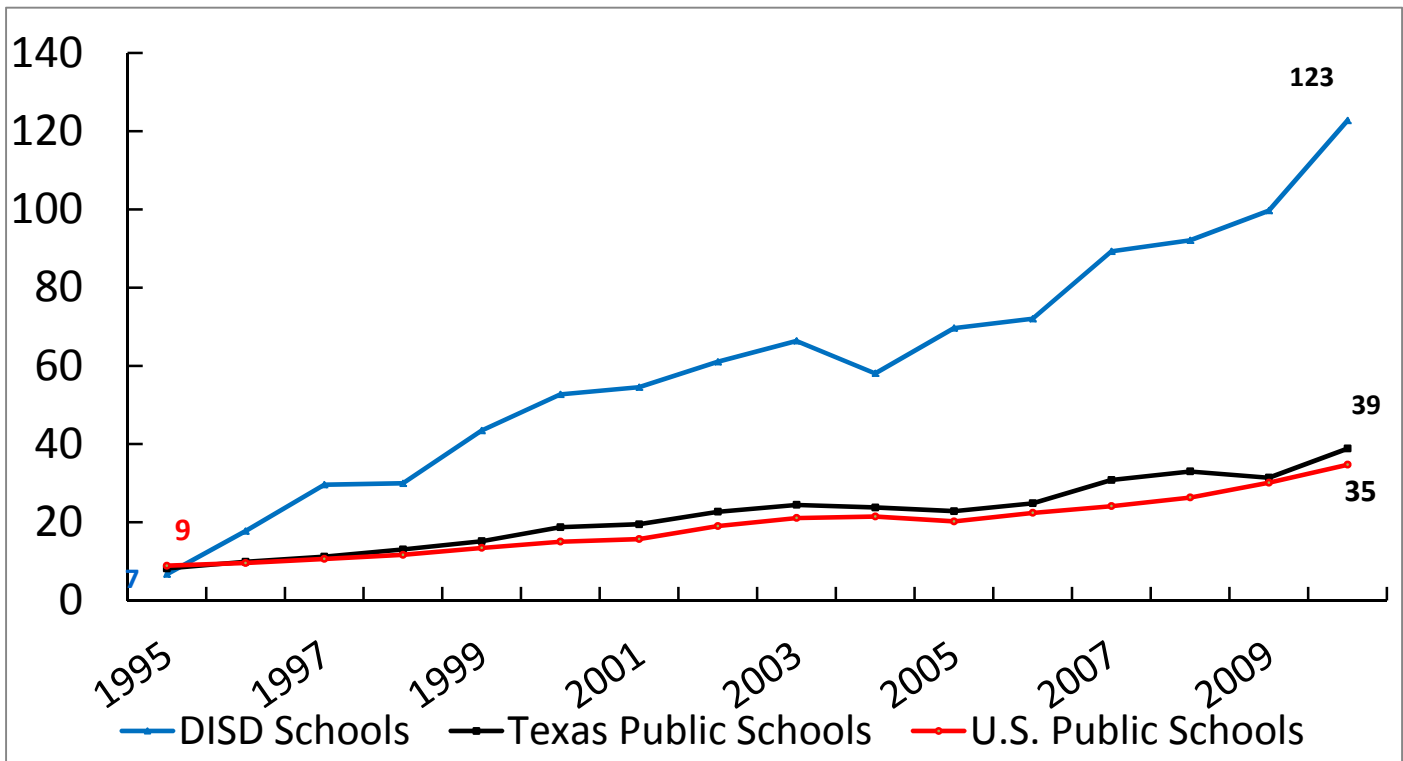
Minority students' success was even more dramatic: from 29 passing scores before the program began, to 1180 of the passing scores last year.

AP Passing Scores in Dallas ISD Math, Science, and English
for African American and Hispanic Students



To compare one school to another or to a state or to the U.S, results can be measured per 1000 junior and senior students. Today the African American and Hispanic students in Dallas outperform their counterparts in U.S. public schools by more than 3 times.

AP Passing Scores per 1000 Juniors and Seniors in Math, Science, English for African American and Hispanic Students



When DISD’s research department evaluated the success of minority students in the AP incentive program, it concluded that:

***Student performance is a function of opportunity, not ethnicity.
It is the opportunity to have superior teachers in an environment of high expectations with resources for quality instruction.***

The DISD results were impressive in demonstrating the number of students that outstanding teachers can identify and inspire.

As other donors stepped up to fund the program in their local schools, the O'Donnell Foundation created a non-profit organization, Advanced Placement Strategies (APS), and hired outstanding AP teachers to implement the program statewide.

The next step was to build on the success of AP by training Pre-AP teachers in grades 6-10 in a program called "Laying the Foundation (LTF)." LTF provides the curriculum, benchmarks and training that teachers need to begin preparing students in the 6th grade to master AP courses in grades 6-12. It provides an enormous boost for all students by giving them an early start on a demanding curriculum, putting a focus on the important goals of graduating both from high school and from college, and motivating them to succeed. The Pre-AP experience prepares students for success in high school, just as AP prepares students for success in college.

Taken together, these programs strengthen the teacher corps in math, science and English in grades 6-12. Teachers are prepared to teach a more rigorous curriculum. The training improves their ability to teach students cognitive skills so they become analytical thinkers and problem solvers. AP and Pre-AP teachers teach AP and Pre- AP classes about half the time. The other half, they teach regular classes. Principals say one of the greatest benefits of the incentive program is that well-trained AP and Pre-AP teachers raise the academic level of the entire high school.

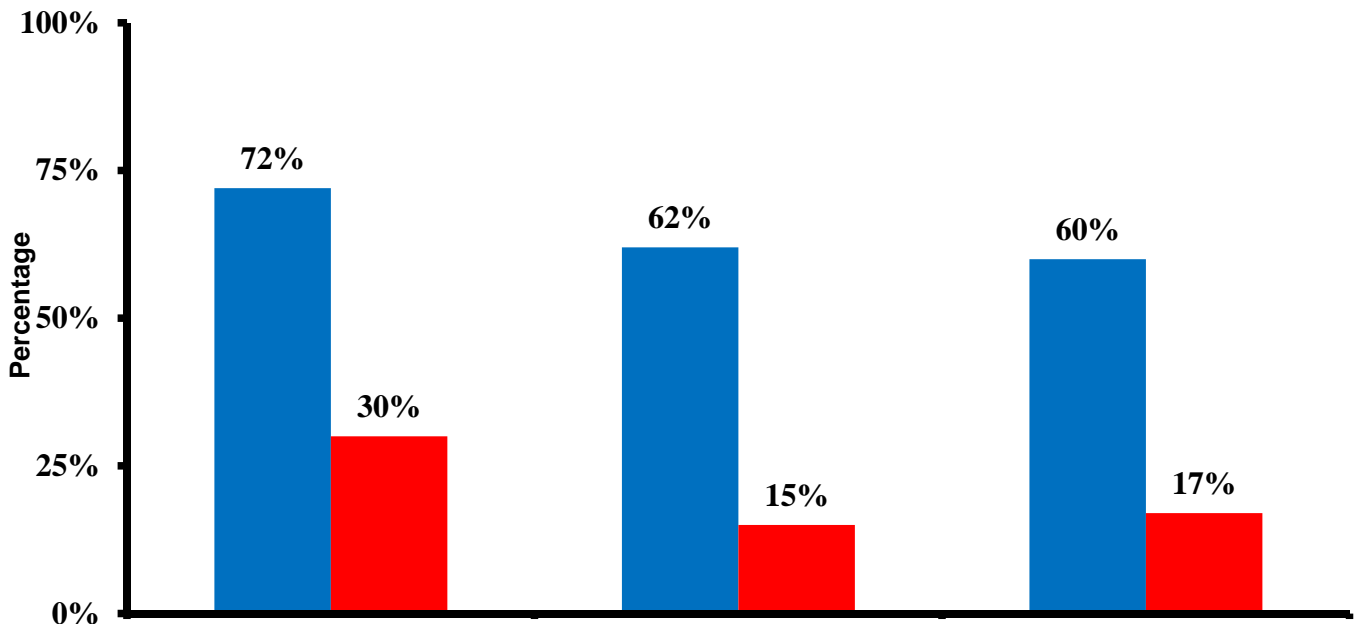
Very importantly, AP teachers give their students the opportunity to be successful well beyond high school. Passing an AP exam gives students confidence to attend college. Data shows that AP students are more likely to complete their freshman year which is a major predictor of earning a college degree.

That degree will change their lives.

The big payoff for successful AP students is the high rate of graduation from college.

The six-year graduation rate in Texas public colleges and universities for AP Anglo students is 72%, compared to 30% for those who did not pass an AP exam. AP Hispanic students' six-year graduation rate is 62% compared to 15% for those who did not pass an AP exam. And 60% of African-American students graduate in six years, while only 17% of those who did not pass an AP exam graduate in six years.

SIX-YEAR GRADUATION RATE* Students who passed an AP exam compared to those who did not take an AP exam at Texas Public Colleges or Universities



* % receiving B.A. degree within 6 years of high school graduation based on
■ Passed an AP Exam ■ Did not Take an AP Exam

The high rate at which AP students earn college degrees is important to our country's future. A college degree means success, however measured. The national unemployment rate in March 2012 for those with a college degree was 4.2%--giving college graduates a 95.8% of having a job. National unemployment rate was 7.5% for those with some college experience but no bachelor degree; for those with no education beyond high school the March unemployment rate was 8.0%.

According to a National Bureau of Economic Research paper, the earnings increases associated with Hispanic and African American students in an Advanced Placement Incentive program “are large enough to reduce the black-white earnings gap by one third and to eliminate the Hispanic-white earnings gap entirely.”¹ What begins in a 6th grade Pre-AP classroom has the potential to change lives and ultimately move families out of poverty so they can look forward to a better future.

APS scaled up quickly in Texas, while maintaining quality. The Texas Legislature bought into the program by enacting the Statewide Advanced Placement Incentive Program to fund AP and Pre-AP teacher training, pay \$30 of the cost of AP exams for students and provide various campus incentives. Soon a bipartisan effort in the U.S. Congress, led by Senator Bingaman, authorized the federal Advanced Placement Program. Our experience is that these federal and state funds have been used wisely to produce the desired results.

The really big step for the Advanced Placement Strategies and Laying the Foundation organizations was inspired seven years ago by two members of the HELP Committee, Senators Bingaman and Alexander, when they asked the National Academy of Sciences to do two things: (1) determine ten actions in priority order to ensure that the United States prospers in the global economy and (2) develop the concrete steps necessary to implement each action. The National Academy report, *Rising above the Gathering Storm*, listed K-12 science and mathematics education as the nation's top challenge.

¹ NBER Working Paper No. 17859, “Do College-Prep Programs Improve Long-Term Outcomes,” issued in February 2012

This led to the Congressional response, America Competes Act, to raise academic achievement by increasing (1) the number of teachers serving high-need schools who are qualified to teach Advanced Placement or International Baccalaureate courses in mathematics, science and critical foreign languages; (2) increasing the enrollment in these and Pre-AP and Pre-International Baccalaureate courses; and (3) supporting statewide efforts to increase the availability of these teachers and courses.

Using the implementation plan that has success in Texas, The National Math and Science Initiative (NMSI) was founded in 2008. NMSI's mission is to ensure our country has the next generation of mathematicians, scientists, engineers and innovators needed to produce a workforce capable of successfully competing in the fiercely competitive 21st century global economy.

Led by a strong national board, and with major funding from national corporations and foundations, NMSI began the work of taking to national scale certain recommendations of America Competes Act. In addition to the capacity of APS and Laying the Foundation to train large numbers of classroom teachers, another program, UTeach is training the next generation of math and science teachers in a different way. It recruits college freshman with an interest and aptitude in math or science and encourages them to become middle and/or high school teachers. They graduate in 4 years with a B.S. in math or science and a teaching certificate. They know their content and are trained in the best pedagogy.

UTeach results are significant. Approximately 90% of UTeach graduates go directly into teaching. Eighty-two percent of the UTeach graduates are still teaching after 5 years as opposed to 65% nationally. UTeach is now experiencing a big growth in student participation across the country with more than 5500 college students enrolled.

Three years after its founding, NMSI is proving programs to strengthen the teacher corps in math, science and English can be faithfully replicated nationally and achieve the same or better results.

- Twenty-nine universities in 14 states are implementing or preparing to implement the UTeach program.
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- Six states have successfully replicated the AP and Pre-AP programs; two more states will begin the program this year with funds from an i3 grant.² From 2008 to 2011 participating schools in the six states averaged an increase of 124% in passing scores on AP math, science and English exams—five and a half times the national average. Gains for African American and Hispanic students increased 216%. Passing scores for female students increased 144% to help reduce the gender gap in critical STEM fields.

NMSI's newest initiative is to provide AP and Pre-AP classes to students from military families. Almost 2 million young people have a parent serving in the U.S. military and more than 220,000 have someone who has been deployed overseas. The separation, concerns about safety and frequent transfers can be particularly difficult for children of military families. Because AP courses are pegged to a national standard, they provide continuity for students whenever their families are transferred.

NMSI has implemented the program in 28 high schools serving military students, with commitments to raise the number to 37 schools next year to serve a total of 20 military installations in 15 states.³

NMSI's strong partners in this mission include agencies of the Department of Defense, national corporations and foundations, together with wonderful support from the White House's Joining Forces initiative. First Lady Michelle Obama summed up the importance of the program: "High schools with high numbers of military students are adding more Advanced Placement courses so these kids has the opportunity they deserve to attend college."

²The six states are Alabama, Arkansas, Connecticut, Kentucky, Massachusetts, Virginia. Colorado and Indiana will implement the program this fall.

³ Alabama, Arkansas, California, Colorado, Georgia, Hawaii, Illinois, Kentucky, Maryland, North Carolina, New Mexico, Ohio, Oklahoma, Texas, Virginia

Of all the values we have in this country, education is one of the most fundamental. It helps set our nation's standard of living. For individuals educational opportunities are the fastest way to succeed. Yet our country is not reaching all the students who can do well.

The real change agents for education are outstanding teachers. They are a powerful force to get rigorous curricula implemented. They prove we can have excellence in public education. This gives assurance about our future.

We are on the verge of changing education for the better. We can pick up the pace. We can invest more in our teachers to inspire our students and get American back on track.

Thank you for this opportunity to testify before the HELP Committee. I would be pleased to answer your questions.