



Applied Materials Education Initiative

Applied Materials, Inc. and the Applied Materials Foundation
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At Applied Materials, our long history of giving is at the heart of our corporate culture. After actively investing in the community for many years, in 1994, the company established the Applied Materials Foundation and is its sole donor. Since that time, Applied Materials and the Foundation (collectively, “Applied” or “Applied Materials”) have provided millions of dollars in funding to education, civic, environmental, and arts and culture programs in the United States and around the globe.

Background

Applied Materials understands that the quality of education in a community is a key indicator of the economic health of that community. Research shows that a significantly undereducated population can put economic pressures on communities and in turn, contribute to a cycle of poverty. Limited educational achievement can restrict future economic success and indicate possible employment difficulties and poverty as adults.¹ While educational achievement gaps in the United States between white students and their African American and Hispanic peers have diminished slightly since the 1970s, they have continued to persist on the whole.²

Given the correlation between educational achievement and economic outcomes later in life, closing the academic achievement gap would not only improve lives on an individual basis, but, when looked at collectively, grow the overall U.S. economy by 5.8%, or \$20.4 trillion, by 2050.³

A 2009 McKinsey study perhaps put it best: the persistence of the educational achievement gaps imposes the economic equivalent of a permanent national recession in the U.S.⁴

Traditionally, Applied Materials supported education in Silicon Valley through an open grant application process. Although the grants and their receiving organizations had merit, there was not a system in place to assess the effectiveness of Applied’s philanthropy or to determine any cumulative effect or measurable improvement.

In 2001, Applied Materials commissioned an independent study of educational need in Silicon Valley, where we have our headquarters and the highest concentration of employees. The resulting data revealed pockets of schools in low-income neighborhoods throughout the region where students were performing significantly below their peers in more affluent school communities. Furthermore, these same schools had both the highest percentages of teachers with minimum or inadequate professional credentials and the lowest percentage of educators with specialized training to meet the needs of their students.

In response, Applied Materials launched its Education Initiative to focus on two high-needs communities in San Jose with the largest concentration of underachieving students in the region – the downtown core and the east side. The goal is to increase the number of students who graduate from high school with the skills, requirements and motivation to succeed in college. Attaining this goal requires addressing the academic achievement gap between higher performing white and Asian students and their Latino and African American peers, as well as a long-term commitment to the high-needs communities.

¹ http://www.urban.org/research/publication/child-poverty-and-its-lasting-consequence/view/full_report

² <https://www.americanprogress.org/issues/race/report/2014/11/10/100577/the-economic-benefits-of-closing-educational-achieve>

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⁴ http://dropoutprevention.org/wp-content/uploads/2015/07/ACHIEVEMENT_GAP_REPORT_20090512.pdf

In 2004, we expanded our efforts to Central Texas, where Applied's second largest U.S. site is located, and more recently, scaled education-focused support to other U.S. cities where Applied has a significant employee base, including Portland, Oregon; Gloucester, Massachusetts; and Kalispell, Montana.

Through its long-term relationships with local community-based organizations, schools and school districts, Applied's efforts have helped close the scholastic achievement gap for thousands of at-risk students.

Key Strategies

Early in the development of the Education Initiative, Applied identified key strategies which proved to be the foundation of success and expansion for the initiative. These now serve as a model for Applied's ongoing support of education.

Engage Experts

One of Applied's corporate values is to be a most valued partner, collaborating broadly to solve our customers' high-value problems faster and better. We utilize this core business strategy in our community grantmaking, working in partnership with proven organizations and community leaders to improve educational outcomes for socioeconomically disadvantaged youth.

Support the Education Pathway

The Education Initiative is founded on a research-based, education pathway strategy that defines the critical leverage points and charts progress metrics. These key inflection points are:

- Entering kindergarten ready to learn and succeed
- Performing at grade level in English language arts and mathematics in early elementary school
- Staying on academic track in middle school, including successfully preparing for high school algebra
- Pursuing a college-preparatory curriculum in high school

We understand that a child's desire to learn and to stay in school typically is directly related to the level of preparedness when entering kindergarten, a progressive and engaging learning environment, strong language skills, and parental support and encouragement to succeed. Teacher preparedness, high-quality professional development opportunities, and participation in professional learning communities are key tools in the pursuit of educational equity.

Create Flexible, Innovative and Tailored Programs

We recognize that each school district has diverse needs and one child's path to success may differ greatly from another's. Unlike other corporate-driven educational enrichment programs that focus on a single intervention or program regardless of district or region, Applied works closely with each school district to identify strategic funding priorities based on school and community context. This approach acknowledges that there is no one-size-fits-all approach to education, and encourages school district efforts to pilot innovative programs aimed at improving student educational outcomes.

Build a Scalable Model

As part of developing and communicating the Education Initiative strategy, Applied identified key community leaders, made strategic grant investment decisions and implemented systems to measure outcomes and progress, while purposely retaining a flexible funding model. The success of the Education Initiative pathway model has grown from a pilot program at one school in 2002, to engagement with nine school districts in San Jose, California, two school districts in Central Texas, and various other districts in key regions in the United States.

Actively Engage in Community Dialogue

Applied has taken a leadership position by advocating for and implementing academic improvement efforts. A large part of the initiative to date has been galvanizing a broad base of support among school districts, education partners and local governments on the value of the initiative. Despite relatively low funding levels compared to public funds, we have found that corporations and foundations can achieve tremendous leverage by becoming a trusted partner, a strong and persuasive voice and an unwavering advocate for an equitable, high-quality education for all children.

Education Initiative in Action

San Jose

Since 2001, Applied has remained committed to funding efforts to increase equity in education in San Jose, California, supporting programs for K – 12 youth aimed at increasing the number of students who graduate high school ready to succeed in college and in their careers.

In fall 2015, Applied renewed its engagement in East Side Alliance, a collective impact effort comprised of the school districts and community-based organizations serving East San Jose students. Additionally, Alliance school districts collectively signed the Spartan East Side Promise with San Jose State University in June 2016, creating a pathway to admission for East Side scholars. By clearly articulating the specific criteria for university admission, students will know what is expected for college acceptance early in their academic careers and school districts, parents and students can take the steps needed to ensure college admission at the university.⁵

In addition to the Alliance, Applied supported efforts by school districts in East Side and Downtown San Jose to increase access to and participation in professional development programs for teachers. Leveraging Applied funding, Oak Grove School District implemented new capacity building opportunities for teachers and administrators, led by Partners in School Innovation (PSI), in an effort to address educational inequity in three of its Title I schools. Investments from Applied and other local funders supported Franklin McKinley School District's third year of collaboration with PSI. School transformation reviews for both districts reported important shifts in practice at the school and district level by the close of the school year.

⁵ <https://blogs.sjsu.edu/newsroom/2016/spartan-east-side-promise-to-prepare-east-side-students-for-sjsu-admissions/>

Applied demonstrates its belief in the promise of high-quality education for all San Jose students through its continued engagement with [ACE Charter School](#) and [Downtown College Prep](#), both of which have reported impressive results in the last five years. ACE recruits Latino middle school students in California who are well below grade level in math and English language arts. In June 2016, ACE held the inaugural graduation of ACE Charter High School and reported a 90% graduation rate, with 94% of graduates matriculating to two- or four-year colleges (50% and 44%, respectively). Downtown College Prep, where 90% of students are socioeconomically disadvantaged, reported an 84% four-year college admission rate for graduating seniors⁶, as well as forward movement in its plans for growth, securing a 50-year lease for a new site scheduled to open in fall 2016.

With funding from Applied and others, [Teach for America Bay Area](#) and [City Year San José/Silicon Valley](#) collectively placed 245 AmeriCorps members in San Jose schools in the 2015-16 school year, with the goal of improving scholastic achievement through in-school academic support and interventions. Applied also maintained its longtime commitment to [Breakthrough Silicon Valley \(BSV\)](#), a six-year program that prepares motivated middle school students with limited educational opportunities to enter and succeed in four-year colleges. As of June 2016, 100% of BSV's 199 high school participants were enrolled in college prep courses and 92% of the organization's 41 June graduates will be attending four-year colleges and universities in the fall. Funding for [TechBridge](#) and [Society of Women Engineers Santa Clara Valley](#) provides young female students with the opportunity to learn more about careers in science, technology, engineering and math (STEM), a field in which women, especially minorities, are heavily underrepresented.

Central Texas

In 2004, Applied expanded the Education Initiative to two districts in Central Texas: [Austin Independent School District](#) (Austin ISD) and [Manor Independent School District](#) (Manor ISD). In Central Texas, Applied remains focused on improving educational outcomes for low-income populations and geographies.

In Austin ISD, Applied joined collaborative efforts to catalyze change in the highest need schools of North and East Austin. By joining [E3 Alliance](#), a regional, research-based education collaborative, Applied became early funders of [RAISE^{up} Texas](#), an initiative to increase student achievement in middle schools through teacher instructional development and student engagement efforts. Recent reports show double-digit gains in student state standardized test passing rates in just one year of implementing the initiative. Applied also works with [Austin Partners in Education](#) (APIE) to increase the percentage of college-ready students in Austin high schools. According to the Texas Education Agency, only 42% of low-income Austin ISD 2013 graduates met Texas Success Initiative standards for college readiness, and often, students who fail to meet this standard are required to take costly developmental courses before embarking on a post-secondary degree plan. APIE offers in-class tutoring, small group learning sessions and help in reading, writing and math to ensure that more students graduate ready to move directly into college.

With the understanding that school districts operate with unique challenges and opportunities, Applied's strategy in Manor ISD is to make grants in support of the district's commitment to project-based learning (PBL). Manor New Tech High School, which opened in 2007, has graduated close to 500 students with an average 99% graduation rate compared to the state average of 88%. With the success of Manor New Tech, Applied has

⁶ <http://dcp.org/en/key-performance-indicators/>

funded the expansion of PBL into two elementary schools and one middle school. The school district is creating an entire pathway of PBL schools that encourage students to collaborate, communicate and develop critical-thinking skills.

As it does in San Jose, Applied promotes both in-school and out-of-school efforts to narrow the academic achievement gap. Applied was a founding sponsor of [Breakthrough Austin](#), supporting the organization's expansion throughout Austin ISD and Manor ISD. The organization currently serves 1,250 students annually. The on-time graduation rate of Breakthrough Austin students is 100% compared to a rate of 78% among their peers, and the organization averages a 92% direct-to-college enrollment. This success persists beyond the high school years with Breakthrough Austin students four times more likely to go on to earn a college degree than their peers. Applied pursues similar outcomes through its work with [College Forward](#), which strives to increase college enrollment and persistence of students through personalized, near-peer coaching and a strong support network. To date, College Forward students in Texas are five times more likely to earn a college degree than their peers.⁷

In Central Texas, Applied also funds efforts to introduce young women to STEM. Programs, including [GirlStart](#), strive to increase girls' engagement in STEM careers by offering a range of workshops, mentorships, camps and after-school programs designed to promote early engagement, academic success and persistence in the STEM workforce. In 2015, Girlstart's programs reached 23,172 girls, educators and community members, 97% of whom participated at no cost.⁸

Other U.S. Cities

In addition to its grantmaking efforts in Silicon Valley and Central Texas, Applied supports a variety of education-focused organizations serving other North American geographies where our employees live and work.

In Gloucester, Massachusetts, Applied has funded Gloucester Education Foundation (GEF)'s efforts to bolster support for innovative education programs. In 2015, discouraged by the low number of girls continuing to pursue STEM-related subjects beyond middle school, GEF launched a comprehensive study of factors impacting the number of female students exiting the STEM education pipeline at Gloucester High School. Specific recommendations from the study will guide the high school's course selection and programming in an effort to close the gender gap in STEM education in the years to come.

Supporting the development of new teachers has also been a well-documented pain-point for districts across the nation. The [New Teacher Center](#) (NTC) seeks to address this challenge by accelerating the effectiveness of new teachers, experienced teachers and school leaders. Applied has funded NTC teacher professional development efforts in San Jose, CA; Portland, OR; and Kalispell, MT. NTC's programming in these regions has resulted in more effective classrooms, increased student academic performance and cost savings for the districts. An independent evaluation of NTC's work found that after just one year, students of NTC-supported teachers gained 2 to 3.5 months of additional learning in reading compared to non-NTC supported teachers. The study also found that NTC-supported teachers in the study return to the district at a higher rate (86%) than traditionally district-supported teachers (80%).⁹

⁷ www.collegeforward.org

⁸ <http://www.girlstart.org/about-us/by-the-numbers>

⁹ https://newteachercenter.org/blog/2016/08/10/new-i3-research-shows-student-achievement-gains-continue-with-ntc-support/?utm_source=hs_email&utm_medium=email&utm_content=33258363&hsenc=p2ANqtz-9PqYH9Q_wkQbww6qGBzExhMBK1tGjOxck6sJ4Xm-BBWwqNBocplFNxdzqfADjA_MrDuZ-FYDG4pAsDlc8pep2Z2pvTJw&hsmi=33258363

The Portland Public Schools (PPS)' partnership with NTC has been especially impactful: after having lost nearly one third of new teachers in 2011, with Applied support, the district worked with NTC to establish high-quality mentoring and induction systems aimed at helping new teachers acclimate to the classroom more quickly and effectively. Recent surveys show new PPS teachers feel supported by their mentors and their ability to design instruction, as well as their approach to goals and challenges, benefited from having a mentor to provide feedback and guidance.

Conclusion

Fifteen years have passed since Applied Materials launched the Education Initiative in San Jose, California, and thanks to the vision and dedication of community, school and district leaders, progress has been made.

In California, the state recently changed its assessment system and is still developing new school accountability systems, so longitudinal progress can be difficult to measure. However, between 2001 and 2013, when the new assessment system was enacted, Academic Performance Index (API) scores in the four San Jose school districts receiving support from Applied grew by at least 20% in each district. Since then, while benchmarks are lacking, we have seen district outputs indicative of forward progress: the eight East Side school districts created a new pathway to college with San Jose State University for the 85,000 students they collectively serve; East Side Union High School District is now offering an introductory computer science course in the majority of its comprehensive high schools; Oak Grove School District has embarked on an intensive plan to address educational equity issues through teacher professional development; and interested parents can look to ACE and Downtown College Prep as high-quality alternatives to the traditional public schools.

In Central Texas, near Applied's Austin campus, Manor New Tech High School boasts a 99% graduation rate, 11% higher than the state average; initial reports on the impact of *RAISE^{UP} Texas* show double-digit gains in student state standardized passing rates; and CollegeForward students in Texas are persisting through college at five times the rate of their peers.

Despite this progress, the academic achievement gap persists.¹⁰ Applied Materials and the Applied Materials Foundation remain committed to engaging allies to increase educational outcomes regardless of race, socioeconomic status or background, as we work collectively to create a better future for all.

¹⁰ <http://cepa.stanford.edu/educational-opportunity-monitoring-project/achievement-gaps/race/#first>

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