

## When Will We Get Over Our Fear of Math

by Dr. Lisa Andrew, CEO and President of the Silicon Valley Education Foundation

Mathphobia continues to plague California. Study after study indicate that the jobs of the future, the jobs of Silicon Valley, will require a deeper understanding of mathematical concepts and their application. Yet, we still fear math. If we care about creating opportunities for Californians to earn a living wage, we must prepare our children for these jobs beginning in kindergarten. We must provide access and opportunity to mastering mathematics early in a child's educational career. And we cannot be afraid to tackle the issue.

In his landmark study, Greg Duncan, a renowned professor of education at the University of California Irvine, found that elementary math skills are more important than any other subject in predicting a child's long-term success. Specifically, a child's kindergarten math scores are the best predictor of his or her third-grade math and reading scores. More importantly, math best develops a child's ability to accept, analyze and execute complex ideas.

In their study titled "The Forgotten Middle: Ensuring that All Students Are on Target for College and Career Readiness before High School", the non-profit organization ACT found proficiency in eighth grade mathematics to be a critical marker of future success. Their study revealed that children will be more successful in high school and careers and have a higher likelihood of going to college if they have a solid foundation in mathematical concepts and practices.

Ensuring children are proficient in mathematics will require us to overcome our fear of math and finally recognize its importance in our economy and the upward mobility of our community, it will require us to think differently about how we teach mathematics in the early grades. It will require us to think differently about how we identify and provide resources and support. While some may worry that many children will not be able to meet the proposed 4-year high school mathematics requirements, it is our responsibility to provide them with the additional resources necessary to meet the new expectations. As a former student and teacher in East San Jose, I appreciated the recognition that what I needed to be successful in mathematics was different than my peers. As a school administrator in East San Jose, I appreciated the empowerment I was given to support others in their success.

When children receive strong mathematics instruction from kindergarten and throughout middle school, the higher expectation of four years of math in high school is obtainable. When children have access to four years of math classes at their high school, equal access to higher expectations is provided.

I applaud the CSU's consideration of requiring a fourth year of high school math of all freshman applicants and their recognition that this fourth year can be more practical alternatives such as statistics, computer science or personal finance. Let's not be afraid of higher standards and expectations. Let's use this inertia to end the opportunity gap. Let's prepare all students from the beginning of their educational career to meet higher standards and expectations. Let's eradicate mathphobia.