White House Early STEM Learning Symposium
A Commitment from Bedtime Math Foundation

Children's early math skills are highly predictive of later academic achievement. In a comparison of math, literacy, and social-emotional development at kindergarten entry, early math skills were the most powerful predictor of later learning (Duncan 2007). Unfortunately, children who begin school with poor math skills typically do not catch up. Children with low math scores entering kindergarten continue to lag behind their better-prepared peers through the 8th grade. Further, as in literacy, children from low-income families are more likely to begin school with much less math knowledge than their middle and upper income peers.

A significant factor contributing to this knowledge gap is the level of support children receive at home during their early years. The fact is that many parents and caregivers are afraid of math and are unlikely to do math with the children in their lives. A poll conducted by Eagleton Institute at Rutgers University found that while 52% of parents read to their kids at night, only 14% did any type of math on a daily basis (Eagleton Institute, 2012.) This pattern holds true even among college-educated parents, with only 25% reporting that they did any math with their kids.

Bedtime Math is a nonprofit whose mission is to help kids love numbers so they can handle the math in real life. Our free app provides parents with a fun nightly math problem to do with their kids (ages 3-9.) Each post starts with a brief set-up story on topics kids find fun, followed by three levels of math questions. The app gives parents a quick, easy way to talk about math with their kids, encouraging even the most math-anxious parents to add a little "math talk" to their daily routine. In October, the journal *Science* published initial findings from a 5-year research study conducted by the University of Chicago. They found that kids who did Bedtime Math at home as little as once a week for one school year improved their math skills by three months more than kids who didn't. Even more promising, children of the most math-anxious parents had gains of half a school year, narrowing the "math anxiety gap."

Given these positive results, our goal is to encourage more families to use the Bedtime Math app. One of the most successful models we have tested is to introduce the app during parent-teacher conferences. We piloted this model in six Newark, NJ elementary schools during the 2015-16 school year. The initial results were very strong, with nearly 20% of pre-k to second grade parents reporting that they are using the app with their kids. Based on this success, we are expanding the program to all Newark elementary schools.

Our commitment for the 2016-17 school year is to pilot the parent-teacher conference model with a minimum of five additional school districts across the country. This pilot will lay the groundwork for a broader expansion, helping more kids learn to love and embrace math.