

Opportunity NYC: Spark

Opportunity NYC: Spark is a privately-funded pilot initiative that tests the impact of small monetary incentive payments on academic achievement. *Spark* is one of CEO's three conditional cash transfer experiments.

<i>Agency</i>	<i>Start Date</i>	<i>Number Served</i>	<i>CEO Budget (Private Donations)</i>	<i>Total Budget (Private Donations)</i>
The Department of Education	September 2007	8,583	\$6,100,000	\$6,100,000

Problem Statement

Research shows that the racial academic achievement gap is a national crisis and one that contributes greatly to economic inequality. On average, African-American children enter kindergarten lagging behind their white peers.¹ And, these differences continue to grow as minority and/or low-income students' progress through school.

Unfortunately, strategies such as Head Start, class size reduction, busing, and residential relocation have failed to substantially reduce the achievement gap. Few education reforms actually focus on acknowledging student achievement and motivating performance. Frequent small-scale incentives aim to change behavior over the longer run, and to reinforce the long-term rewards to education.

Research and Evidence

State-sponsored programs that provide incentives directly to students are rare, although in recent years, there has been an increased interest in this type of model.² Incentive based programs encourage a range of outcomes including homework completion, test performance, attendance, pleasure reading, and graduation. Incentives range from credits that students can use to purchase tangible items of interest (pens, small toys, assorted trinkets) to actual cash.

A pilot study conducted by Harvard Economics Professor Roland Fryer examined whether social incentives could help narrow racial and income achievement gaps. Fryer's program offered movie passes and pizza parties to third grade students of a Bronx school during the 2004-2005 school year. The elementary school was located in a low-income neighborhood comprised mainly of African-American, Puerto Rican, and Hispanic students. The third grade contained three hundred and sixty students in twelve classrooms. Students were administered eight exams over the course of the school year, and incentives were tied to the exams. Classrooms were randomized into either individual or group incentive programs. Students received a reward if they scored 70 or better on an exam (which was equivalent to earning a passing score on the state exam) or if they gained 5 points over their previous exam. Group incentives worked in a similar way, but performance was measured by the group average, rather than individual performance. Rewards were social in nature: pizza parties, ice cream socials, movies in the gymnasium, movie tickets, and tickets to the Bronx Zoo.

While the pilot did not meet the standard of a rigorous experimental design on several dimensions, the results were encouraging. Incentives appeared to have a positive impact on student performance and the group incentive condition outperformed the individual condition.

Other research, conducted outside of the United States, supports these findings. For example, a study conducted by Angrist and Lavy (2002) finds some positive effects of monetary incentives on Israeli students' graduation rates.³ Cash awards were given to students in low-achieving schools, and the results show that post-treatment matriculation rates in treated schools are about 8.5 percentage points higher on average than those in control schools (conditional on baseline matriculation rates). A study conducted by Kremer, Miguel, and Thornton (2004) also found that Kenyan girls improve exam performance when provided with monetary incentives.⁴

Program Description

Spark enrolled 8,583 New York City public school students from the fourth grade in 34 schools and the seventh grade in 31 schools. Students have the opportunity to earn up to \$250 in the fourth grade and up to \$500 in the seventh grade based on their achievement on standardized assessments throughout the school year.

In the first year, the program measures the impact of individual incentives which are cash awards of up to \$25 per test for fourth graders and up to \$50 for seventh graders depending on performance. Students receive their incentive payments after each of ten standardized tests.

In the second year of the program, group incentives will be evaluated. The group incentive model closely mirrors individual incentives, except that performance is determined by the average of one's group. So, if the five-person group achieves, all students are rewarded equally regardless of the achievement of any single student. Group rewards may provide the impetus for collaborative learning and tutoring across different ability levels.

Target Population

Opportunity NYC: Spark serves 8,583 4th and 7th graders throughout the New York City public school system.

Expected Outcomes

Short-Term:

- Increase participants' academic achievement

Long-Term:

- Close the academic achievement gap

¹ This disparity was first established by Coleman et al. *Equality of Education Opportunity*. Washington, D.C.: U.S. Government Printing Office, 1966. For more recent analysis, see Campbell, Hombro, and Mazzeo, *NAEP 1999 Trends in Academic Progress: Three Decades of Student Performance*. NCES 2000469, 2000.

² School based programs in Kansas City, Buffalo, Birmingham, Michigan have recently been written about in the popular press. Also see Earning by Learning of Dallas which rewards students for reading books (<http://www.eblofdallas.org/index.html>).

³ Angrist, J. and V. Lavy. "The Effect of High School Matriculation Awards: Evidence from Randomized Trials." CEPR Discussion Papers 3862, 2002. See also, Angrist, J. and V. Lavy, "The Effect of High Stakes High School Achievement Awards: Evidence from a School-Centered Randomized Trial." IZA Discussion Papers 1146, 2004.

⁴ Kremer, M. Miguel, E., Thornton, R. and Owen Ozier. "Incentives to Learn." World Bank Policy Research Working Paper No. 3546, 2004.