

2007 research findings: equality of opportunity in the developed world

In 2007, we evaluated charities that aim to improve equality of opportunity in the developed world, through a variety of programs ranging from early childhood care to K-12 education to employment assistance for adults. We found that:

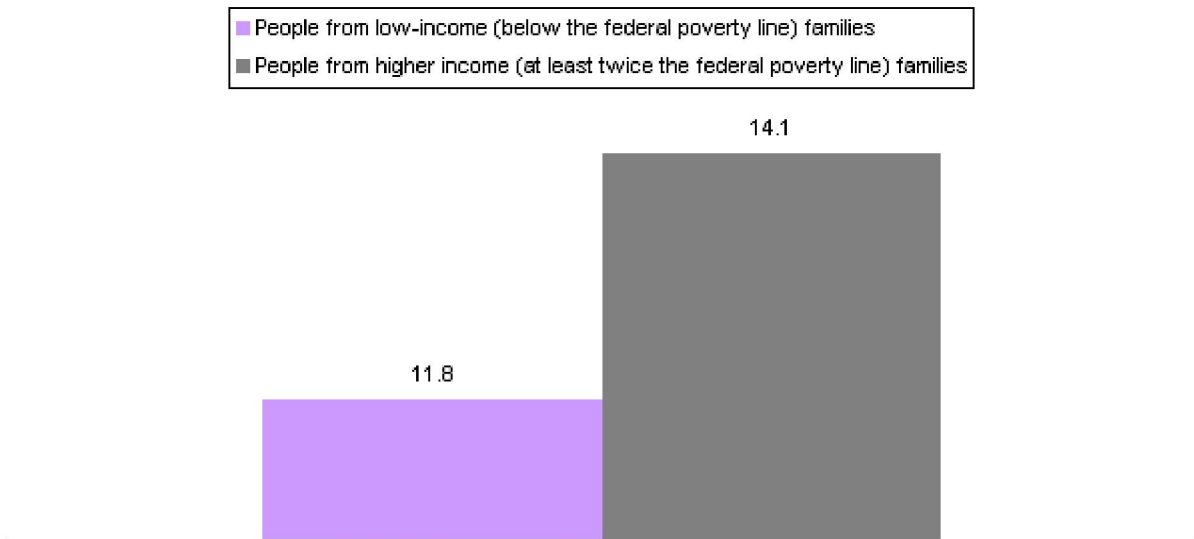
- The U.S. achievement gap is large and deep-rooted – appearing as early as the age of five – and improving equality of opportunity is far from straightforward.
- Earlier-in-life interventions have stronger empirical support than later-in-life interventions.
- Few charities are associated with empirical evidence that they're changing lives for the better; we recommend the Nurse-Family Partnership and the Knowledge is Power Program as standout organizations.

The details of our findings are available at www.givewell.net; this report presents the highlights of what we learned.

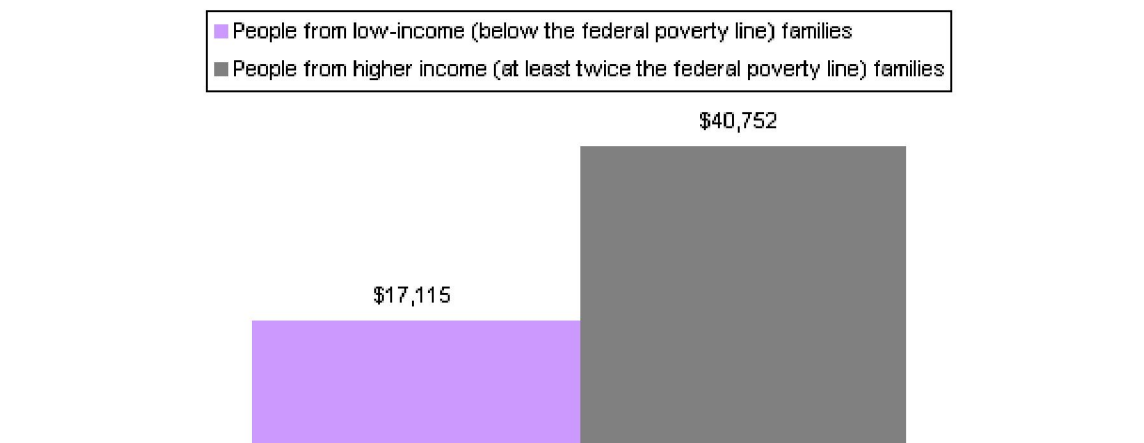
The achievement gap

U.S. children who grow up in low-income households are statistically less likely to succeed in school, more likely to have low earnings themselves, and more likely to be arrested and incarcerated compared to other children. Is it possible for a donor to help improve equality of opportunity?

Highest grade completed in school (average)



Average annual earnings at adulthood

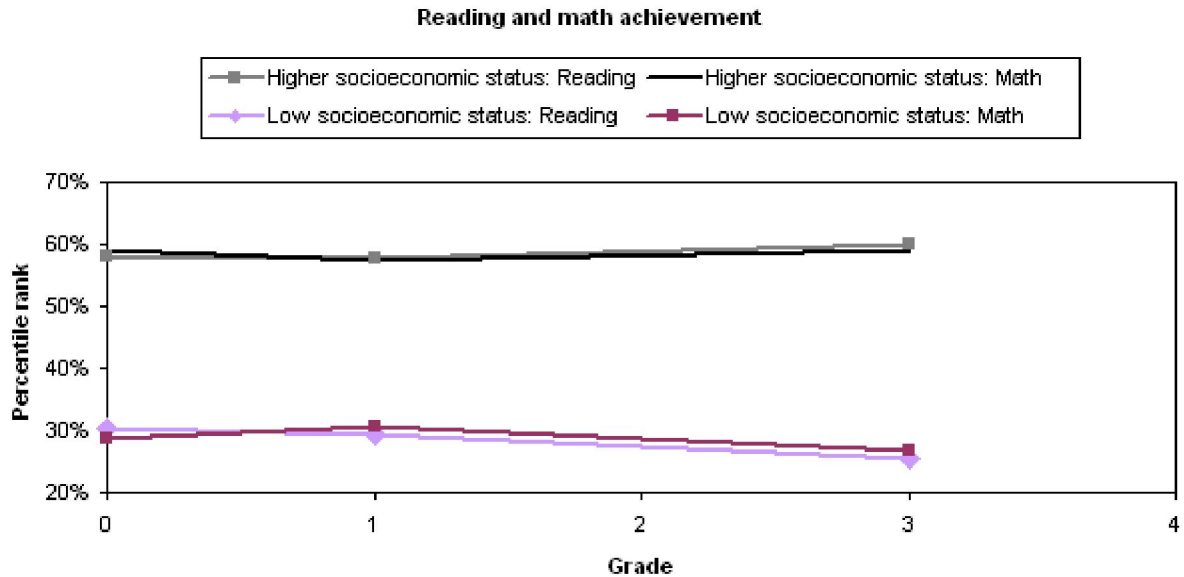




(Data from the Panel Study on Income Dynamics)¹

The achievement gap starts in early childhood

Different organizations have extremely different views of where these disparities come from, and of what a donor can do to help “close the opportunity gap.” For our part, **we question how much can be accomplished by low-intensity and/or late-in-life interventions**, because of consistent evidence that **the achievement gap is generally significant *before children enter kindergarten***.



(Data from the Panel Study on Income Dynamics)²

Improving equality of opportunity: a donor's options

Early childhood care: day care and other programs

Extremely promising, but organizations vary in approaches and effectiveness

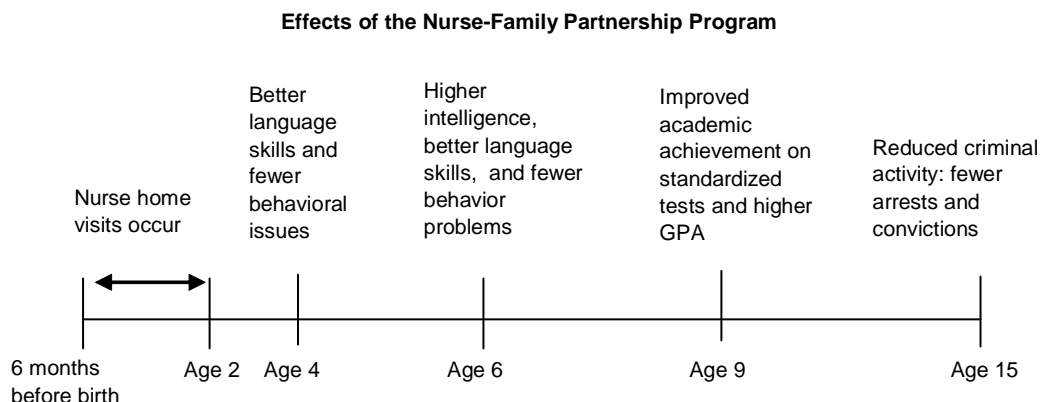
Early childhood care has been rigorously shown to make a positive difference in later life outcomes. Early childhood care is superior – in terms of the quality of research and the impressiveness of the results – to any other intervention we've seen aimed at improving later life outcomes for disadvantaged people in the U.S. This superiority is particularly compelling in the context of the fact that many of the disparities charities seek to address appear to be present in and before kindergarten.

Select preschool programs have demonstrated impressive impacts on later life outcomes; in some studies, children who were randomly selected for intensive pre-K care had higher high school graduation rates at age 18 and superior academic performance as late as age 21.³ However, results from less intensive preschool programs are more mixed, and **we have been unable to find a preschool-centered charity that can demonstrate a consistent and lasting effect on its enrollees** (either by tracking them directly or by demonstrating fidelity to an already-proven model).

Early childhood care: Nurse-Family Partnership

Effective

The Nurse-Family Partnership is a standout for its commitment to a truly proven program. The program consists of sending registered nurses to perform regular visits to low-income mothers, both during and immediately after pregnancy (up until the child's second birthday), in order to counsel them on issues such as birth spacing, child nutrition, and maintaining a safe and supportive environment. Repeated studies of this program have shown lasting differences between those who did and didn't participate in the program (even when participants were chosen by lottery).⁴

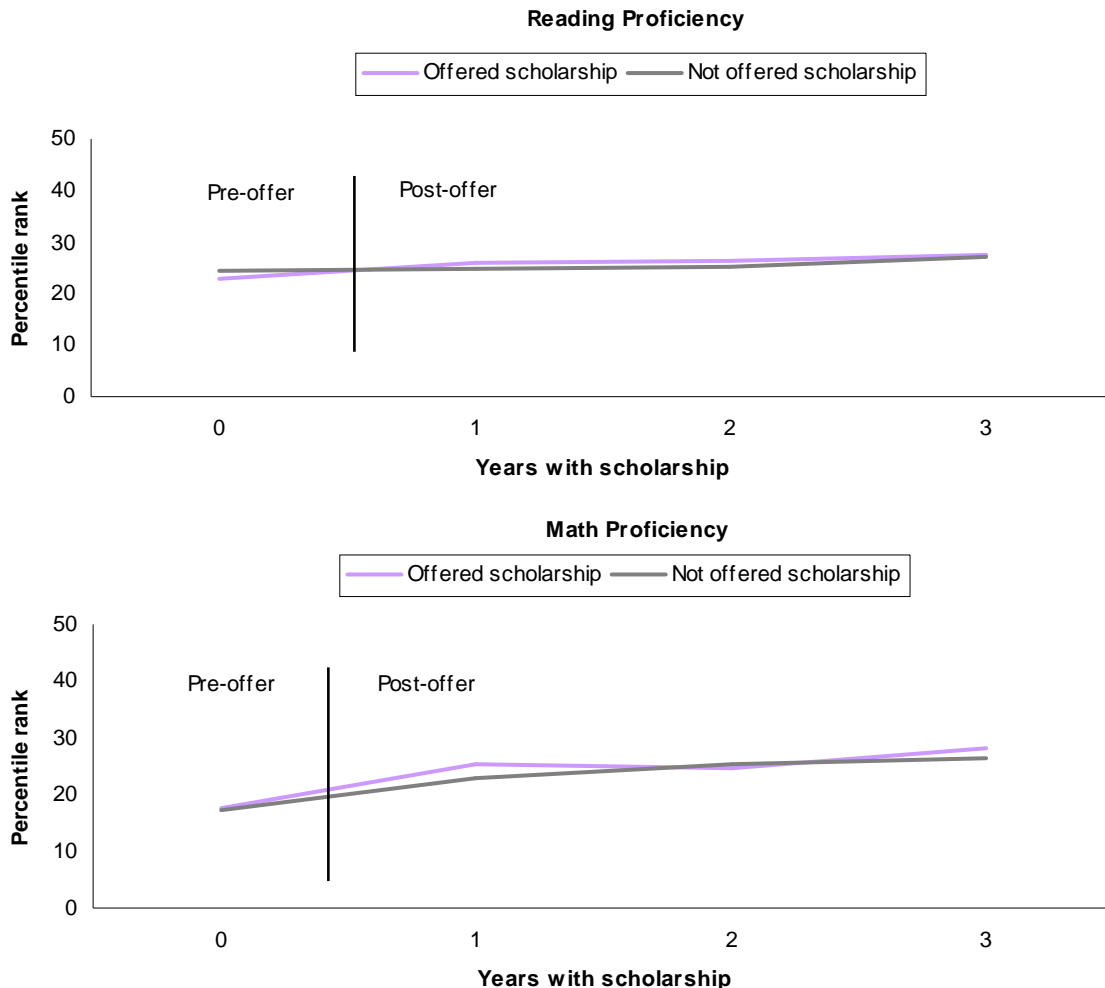


K-12 education: from public to private school

Not effective

One of the charities we evaluated – the Children’s Scholarship Fund – gives partial tuition scholarships to low-income families, helping them to send their children to the school of their choice. Yet the studies we’ve seen of such scholarships indicate **little, if any, effect on academic performance.**⁵

The charts on this page are taken from a study of the New York City Voucher experiment, in which students were offered partial-tuition scholarships by random lottery. A “treatment group” of those offered scholarships and a “control group” of those not offered scholarships were tracked and compared to each other on math and reading achievement; very little difference emerged over the three years of the evaluation.



(Data from the New York City Voucher Experiment)⁶

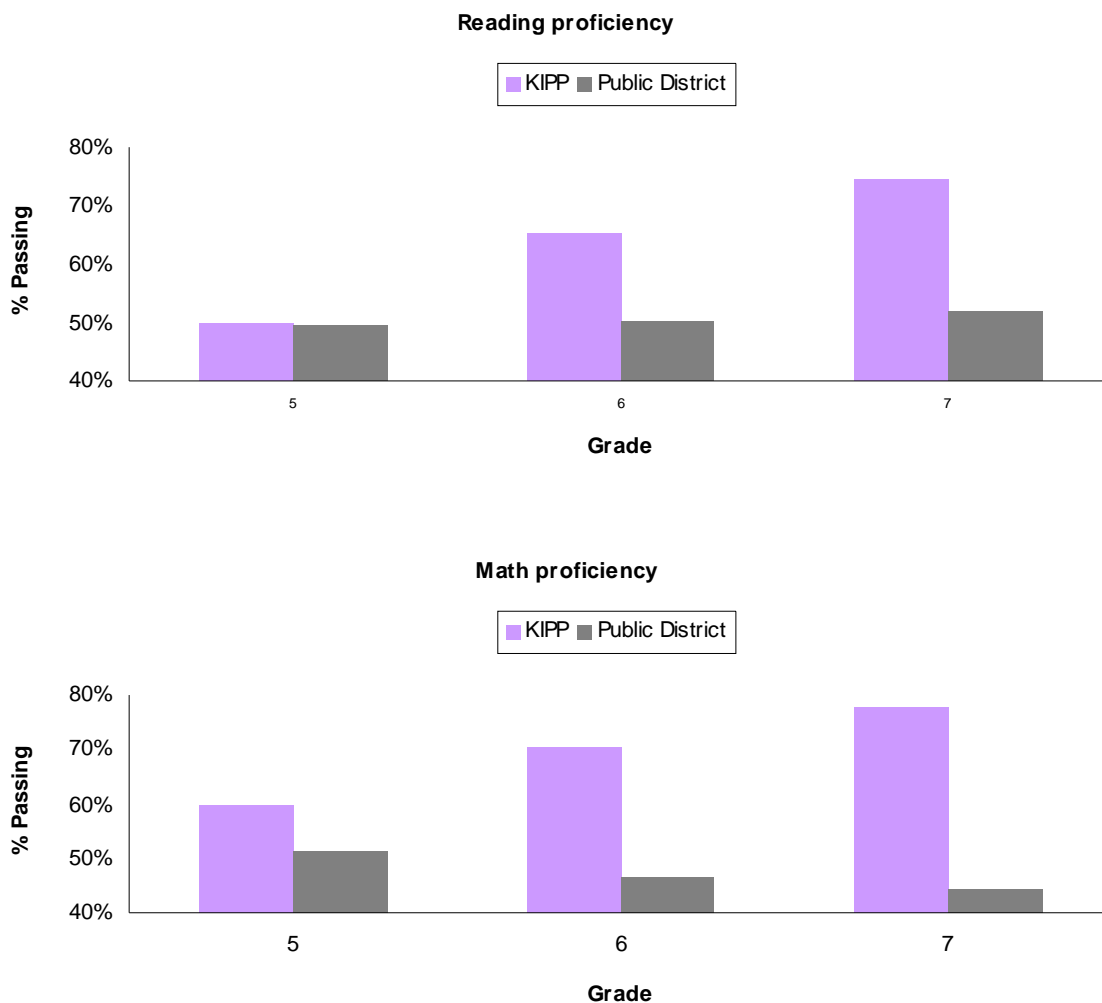
Similar experiments in other cities have yielded similar results.⁷ We find this result counterintuitive but plausible. We have two hypotheses for why a scholarship program may not work as well as hoped:

- Partial-tuition scholarships may primarily benefit the *most motivated* families – families that would find ways to improve their educational situation with or without scholarships. (Similar dynamics could apply to nearly any education-related intervention that relies on voluntary application and enrollment.)
- “Normal” private schools may not be the best setting for students who are already disadvantaged and struggling, and who may need extra help.

K-12 Education: Knowledge is Power Program

Appears effective

The **Knowledge is Power Program (KIPP)** takes the position that disadvantaged students are behind from the day they enter, and need schools that are focused on going *above and beyond* a “normal” education. **Our analysis implies that KIPP is having a real effect on academic outcomes**, showing significant gains throughout KIPP’s national network of schools.



(Data from public test score databases)⁸

We do not have lottery-based data for KIPP, as we do for scholarship programs, and we've had to make certain assumptions in estimating its impact (the full details of our analysis are available at www.givewell.net/KIPP). But ultimately, we believe that KIPP is making a real difference where many others are not.

K-12 Education: Other Approaches

Not Proven

Other interventions, such as tutoring programs and summer school, have little evidence of any kind behind them; having seen how an intuitive and appealing solution like scholarships can fail to have the desired effects, we are not optimistic about such programs.

Employment assistance programs

Costly and unproven

Employment assistance programs cost up to \$20,000 per person served (this is almost twice the cost of a year of grade-school education, or twice the entire per-person cost of the Nurse Family Partnership program), and often see a small minority of their enrollees get jobs that they hold for more than a year. We have yet to see a program in this area with clear evidence that it is helping people get better jobs, careers, or lives than they could get without charitable assistance.⁹

Job training programs we reviewed

Program	Client served	% placed sustainably	Wage earned	Cost per sustainable placement
Year Up	Youth with HS/GED degrees	47%	~\$20/hr	\$50,000
VFI	Undereducated/disconnected youth	60%	~\$10/hr	\$17,000
St. Nick's	Self-selecting pool based on career path	67%	\$15-20/hr	\$12,000
Highbridge	Self-selecting pool based on career path	43%	\$10-13/hr	\$10,000
The HOPE Program	Adults with serious barriers to employment	31%	\$8-12/hr	\$25,000
CCCS	Adults with serious barriers to employment	<3%	\$8-12/hr	>\$18,000

Conclusion

- By the age of five, children from low-income families are substantially behind academically. Measures such as earnings and incarceration show analogous differences later in life.
- Research shows that early childhood care can have substantial effects on later life outcomes such as academic achievement, earnings, and criminal behavior. The **Nurse-Family Partnership**, which arranges home visits by nurses to low-income mothers, is an outstanding charity in this area, committed to replicating a proven program.
- Some evidence suggests that the **Knowledge is Power Program (KIPP)**, a charity that runs charter schools aimed at disadvantaged children, can significantly improve their academic performance.
- Many post-kindergarten interventions – from academic scholarships and vouchers to employment assistance programs – are costly, and evidence does not support the notion that they effectively change life outcomes.

¹ Data from Duncan, G. J., Kalil, A. & Ziol-Guest, K. 2008. 'The economic costs of early childhood poverty,' Partnership for America's Economic Success, Issue Paper #4. The paper is available online at http://www.partnershipforsuccess.org/docs/researchproject_duncan_200802_paper.pdf

² Data from Rathbun, A., West, J. & Hausken, E. G. 2004. 'From Kindergarten through the third grade: children's beginning school experiences,' *National Center for Educational Statistics*. The paper is available online at <http://nces.ed.gov/pubs2004/2004007.pdf>. Note that this source provides mean scale scores, not percentile ranks; we converted the scores to percentile ranks by assuming a normal distribution and using the data on standard deviations found in another paper: Murnane, R.J., Willett, J.B., Bub, K.L. & McCartney, K. 2006. 'Understanding trends in the black-white achievement gaps during the first years of school,' Brookings-Wharton Papers on Urban Affairs. Our calculation is available at [http://www.givewell.net/files/analysis/Academic achievement adjustments.xls](http://www.givewell.net/files/analysis/Academic%20achievement%20adjustments.xls)

³ For our full report on pre-school programs, see <http://www.givewell.net/node/161>

⁴ For our full report on the Nurse-Family Partnership, see <http://www.givewell.net/node/166>

⁵ For full details on the studies we read, see our review of the Children's Scholarship Fund at <http://www.givewell.net/node/124>.

⁶ Data for years 0-2 comes from the following paper: Myers, D., Peterson, P., Mayer, D., Chou, J. & Howell, W. G. 2000, 'School choice in New York City after two years: an evaluation of the School Choice Scholarships Program,' *Mathematica Policy Research* (available online at http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/16/8e/62.pdf). Data for year 3 comes from Mayer, D., Peterson, P., Myers, D., Tuttle, C. C. & Howell, W. G. 2000, 'School choice in New York City after three years: an evaluation of the School Choice Scholarships Program,' *Mathematica Policy Research* (available online at <http://www.givewell.net/files/Round2Apps/Cause4/Childrens%20Scholarship%20Fund/B/originalhowellpetersonmathstudy.pdf>).

⁷ See our overview at <http://www.givewell.net/node/124#Studiesonacademicimpact>.

⁸ See our full report on KIPP at www.givewell.net/node/109 for full information on data and sources.

⁹ For full detail on employment assistance programs, see our report at <http://www.givewell.net/cause5>.