

Program Overview

Baby's First Years is the first rigorous study in the United States to assess the impact of poverty reduction on infant and toddlers' cognitive, emotional, and brain development. By studying the impact of monthly, unconditional cash allowance to low-income mothers and their children in the first three years of the child's life, the data from this study will help identify whether reducing poverty can affect early childhood development and the family processes that support child development.

Quick Stats

Agency	Start Date	FY21 Number Served	FY21 NYCO Budget*	FY22 Number Served	FY22 NYCO Budget*
NYC Opportunity	July 2018	300 ⁱ	\$450,960	300	\$300,000

*NYC Opportunity funding is just a portion of the overall funding for this national initiative, which is primarily supported through private and federal funds.

Context

According to the American Community Survey, child poverty rates in NYC in 2018 accounted for 23.4% of the population under U.S. official measures and 21.7% under the NYC Supplemental Poverty Measure.^{ii,iii} A growing body of research shows that the cognitive and brain development of low-income children differs from that of children in higher-income families, and that income is associated with different performance in measures of children's cognitive development, school performance, and learning-related behaviors, such as attention and self-regulation.^{iv} Amid increasing national interest in targeted cash assistance strategies, there remains a need for more evidence on unconditional guaranteed income approaches and their impact on financial well-being and service utilization among targeted populations, particularly young children and families.

Research & Evidence

Children living in poverty experience disparities related to language, memory, executive functioning, and social-emotional development, relative to children in high-income households.^v Economic hardship may also negatively affect child-parent interactions, and children raised in poverty are also more likely to experience unfavorable labor market, health, education, and other outcomes. However, while there exists robust evidence on the causal effects of family income on birth outcomes and outcomes for older children, there is limited research looking at infants and toddlers.

Recent neuroscience studies find family income correlated with brain function and structure, but lack causal evidence. Emerging evidence is revealing the ways that early environments, especially adverse environments, shape brain development. A subset of these studies focus on specific cognitive skills including direct measures of brain development. Several small-scale correlational studies have reported that income is related to differences in early childhood brain function as early as 6 months, suggesting that early experience of poverty may shape children's brain development.^{vi,vii,viii}

Program Description

Baby's First Years is the first multi-year study testing the connections between poverty reduction and brain development among children in their earliest years. This study seeks to produce strong and clear evidence about the causal connections between family income and early childhood development, and to provide insight into likely effects of tax and income-enhancement policies for young children.

Baby's First Years is a randomized control trial including 1,000 low-income mothers and their newborns recruited in four metropolitan areas, including New York City. For the first 40 months of the children's lives, mothers receive debit cards with either \$333 per month (\$4,000 per year), or \$20 per month (\$240 per year), with payments beginning shortly after the baby's birth. Eligibility for this program does not affect eligibility for most other public benefits programs, but investigators will collect state and local administrative data regarding utilization of benefits such as Medicaid and Supplemental Nutrition Assistance Programs (SNAP), as well as parental employment and any involvement in child protective services.^{ix}

Data is collected through in-person visits and phone interviews on or around the children's first, second, and third birthdays. Each wave of data collection will capture:

- Aspects of family life hypothesized to be affected by poverty, including parent stress, family expenditures, family routines, parents' time use and parenting practices, and child care arrangements.
- Children's development, as well as their physical health, stress, and behavior.

In addition, qualitative semi-structured interviews will be conducted with 80 randomly selected mothers in two of the four study sites. There will be four rounds of interviews, three of which will take place during the child's first 30 months of life, and a fourth after 40 months (when the payments are scheduled to have ended). The program has been extended due to changes in data collection caused by the Covid pandemic.

Target Population

Mothers aged 18 years and older were recruited after giving birth across 12 hospitals in four metropolitan regions: New York City; New Orleans, LA; Minneapolis–Saint Paul, MN; and Omaha, NE. These cities were chosen for their ethnically and geographically diverse communities. Eligibility criteria also included: household income below the federal poverty threshold in the calendar year prior to the interview, infant admitted to the newborn nursery and not requiring admittance to the intensive care unit, infant to be discharged in the custody of the mother, mother identified as not "highly likely" to move to a different state or country in the next 12 months, and English or Spanish speaking.

Expected Outcomes

- The evaluation outcomes will include:
 - Evidence about the causal connections between family income and early childhood development
 - Evidence about the likely effects of tax and income-enhancement policies for young children
- The child allowance outcomes will include:
 - Reduction in maternal stress
 - Reduction in child poverty
 - Improved Parent-Child interactions
 - Improvements in child language, memory and self-regulation
 - Increase in household incomes

Performance Data

	FY21		FY22
	Actual	Target	Actual
Number of mothers	300	300	300
Total Dollars Distributed			
% of mothers who have spent their cash assistance	97*	100%	100%

Since inception until January 2022, \$5.4 million was distributed, with \$1.5 million of that going to NYC moms.

Evaluation

Between July 2019 and June 2020, the researchers successfully interviewed 931 of the 1,000 mothers who agreed to participate in the study. Data collection was timed to coincide with their children's first birthdays. Until March 13, 2020, interviews were conducted in person, often in the mother's home; subsequent interviews have been conducted by telephone, due to the COVID-19 pandemic. Novel features of the in-home Age-1 interviews include: Electroencephalogram (EEG)^x from the child, a hair sample from the mother, and a video recorded play task with the mother and child.

For Year 3, families will complete questionnaires related to child development and mothers' life experiences. Researchers will directly assess children's cognitive and emotional development and brain function.

For the qualitative data, researchers will conduct structured interviews at 10 months, 19 months, 27 months and a final interview at 40 months. The topics covered will vary over time, but will focus on the meaning and experience of the cash payments with emphasis on family finances, employment, home environment, child care, stress, family support, parental values, and hope and plans for future.

The study aims to inform and influence the policy development of a universal child allowance. A final report is expected to be released in 2023.

ⁱ 300 mothers are served in NYC. Overall, 1,000 mothers were recruited across four different cities, including Minneapolis, Omaha and New Orleans

ⁱⁱ The project includes significant private funding from other sources. NYCO funding is only a small part of the total overall funding for this study and is used to support components of the study in NYC.

ⁱⁱⁱ *New York City Government Poverty measure 2018*. (n.d.). Retrieved March 9, 2022, from https://www1.nyc.gov/assets/opportunity/pdf/20_poverty_measure_report

^{iv} <https://www.babysfirstyears.com/about>

^v Brito, N. H., Fifer, W. P., Myers, M. M., Elliott, A. J., & Noble, K. G. (2016). Associations among family socioeconomic status, EEG power at birth, and cognitive skills during infancy. *Developmental Cognitive Neuroscience, 19*, 144–151. <https://doi.org/10.1016/j.dcn.2016.03.004>

^{vi} Tomalski, P. et al. Socioeconomic status and functional brain development – associations in early infancy. *Developmental Science 16*, 676-687, doi:10.1111/desc.12079 (2013).

^{vii} Harmony, T., Marosi, E., Díaz de León, A. E., Becker, J. & Fernández, T. Effect of sex, psychosocial disadvantages and biological risk factors on EEG maturation. *Electroencephalography and Clinical Neurophysiology 75*, 482-491 (1990).

^{viii} Otero, G. A. Poverty, cultural disadvantage and brain development: A study of preschool children in Mexico. *Electroencephalography and Clinical Neurophysiology 102*, 512-516 (1997).

^{ix} Income derived from involvement in this study would count towards Supplemental Security Income and Section 8 Housing Choice Vouchers.

^x An electroencephalogram (EEG) is a test that detects electrical activity in the brain using small, metal discs (electrodes) attached to the scalp.