

**Moonshot for Kids Competition:
Book Harvest's Billion Dollar Moonshot Idea
Submitted to Thomas B. Fordham Institute/Center for American Progress
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EXECUTIVE SUMMARY

"My baby is smart! I want to give her EVERY opportunity that I never had – starting now."

At Book Harvest, we know that **every child comes into this world with vast potential** -- bursting with promise to realize big dreams, seize audacious opportunities, and dazzle the world.

But while potential is universal, **opportunity is not.**

That is not acceptable: **every** child deserves the chance to develop her full potential.

In fact, tragically, the opportunity gap is today a huge chasm:

- Just 48% of low-income children are kindergarten-ready at age five, compared to 75% of those from moderate and high-income families.
- The gap that is evident in kindergarten only grows more alarming during the early grades: every year more than 80% of low-income children do not read proficiently by the end of 3rd grade, a crucial predictor of high school graduation and career success.
- And while **fully 85% of brain development takes place in the first three years of life**, this country spends **only 6% of education dollars on the first five years.**

The simple truth is that **our country has no strategy for addressing the vast potential of the first five years of life** – despite the reality that the early years offer an unrivalled, once-in-a-lifetime developmental opportunity.

The first five years are THE time to train for the marathon that is K-12; and yet we as a society continue to show up to that educational starting line without any coherent plan for training or preparation. The result? Not one starting line, but two -- with children from low-income families already behind their peers on the very first day of school.

Nobody has yet developed and scaled an effective strategy to enable *every* child to start school ready to learn -- and, from there, to realize her full potential, one that is not stymied by opportunity gaps born of poverty.

Correcting this crisis is why Book Harvest exists.

Our goal is simple: We work to ensure that *every* child enters kindergarten ready to learn – the essential springboard to school and life success.

Our plan is straightforward: Book Babies provides light-touch literacy coaching home visits combined with an abundance of books to families – starting when their children are born and for a full five years through kindergarten entry.

Our outcomes are being evaluated: As we anchor and grow our proof of concept, we are studying it intensively with an external longitudinal Randomized Control Trial Evaluation.

Here's why we do it: We aspire to correct the disparities in educational opportunity that are entrenched in cycles of intergenerational poverty.

- We believe we hold game-changing and long-sought-after answers in the quest to guarantee every child an excellent start that unleashes her full potential.
- We believe our work may be a true Moonshot, providing the blueprint for a cost-effective, scalable, sustainable, population-level nationwide strategy for realizing the potential of the first five years and laying the foundation for kindergarten readiness – itself the upstream precondition to a successful school experience and a lifetime of literacy and prosperity.

We approach our work with a core belief – based in scientific evidence – that literacy is essential for prosperity; and the key to literacy is, quite simply, **books**. Books enable bedtime stories and essential serve-and-return bonding with moms and dads. Books pave the way for learning and discovery; confidence and self-efficacy; job opportunities and housing; social capital and community; civic engagement and leadership. The world of possibilities is a reality for everyone when they know how to read.

Book Harvest and its Book Babies program began modeling this approach in Durham, NC, in 2013. We have entered the early stages of scalability with replication in a second North Carolina county – Forsyth County. We will soon add other communities – rural and urban. We will pursue population-level scale through federal recognition of program efficacy (DHHS's Home Visiting Evidence of Effectiveness and HRSA and ACF's Maternal, Infant and Early Childhood Home Visiting program funding). And we will launch our own National Training Center.

This proposal is Book Harvest's Billion Dollar Moonshot Idea. It details what we do; why we do it; how we are different from other efforts; why it matters; and – most of all – what may be possible in the next 10 years. The stakes are stunningly high – so the bets need to be big.

INTRODUCTION TO THE PROBLEM

The first five years of life are a time of spectacular, breathtaking growth. **Science has proven that 80% of brain development happens in the first three years of life.**¹ This rapid growth continues through the first five years. More than a million neural connections are made every second,² offering a once-in-a-lifetime opportunity to lay a robust foundation for a lifetime of success. The universe of language – spoken and written – must be set into orbit at the very outset of every child’s life in order to fuel brain development.³

Unfortunately, knowledge of the brain’s vast early potential – and access to the resources that allow this knowledge to flourish – are too often the exclusive domain of the already educated and privileged.⁴ The toll this takes is starkly evident among today’s children.

As early as 18 months, low-income children begin to fall behind in vocabulary development and other skills vital to classroom success. In a 2009 study, children in middle-income families engaged in 1,000 to 1,700 hours of picture book reading with an adult; for children in low-income families, that number was just 25 hours. Not surprisingly, children in low-income homes often lack books, while their higher-income peers boast large home libraries.

Once in school, the gap is glaring. Only 48% of low-income children are kindergarten-ready at age five, compared to 75% of children from families with higher incomes. Low-income first graders have a vocabulary of 2,900 words – half the 5,800-word vocabulary of first graders from professional homes.⁵

Research also reveals that parents are **the secret sauce** in closing the gaps that emerge in the first five years. Professor Karen Mapp of Harvard’s Graduate School of Education notes, “Parent participation is the leading predictor that supports students’ academic success, regardless of race, socioeconomic status, ethnicity, or cultural background.”⁶ The Annie E. Casey Foundation supports this assertion, but with a caveat:

“We often **take for granted** that parents will acquire the awareness, skills, and supports they need to fulfill the obligations inherent in these essential roles.”⁷

Any work to realize universal opportunity for children *must* begin with support for families from the time their children are born.

REVIEW OF PAST ATTEMPTS TO SOLVE THE PROBLEM

The landscape of high-quality programs that partner with low-income families to support kindergarten readiness is limited in the United States; programs that start at birth and are sustained over the entire first five years of life are, to our knowledge, nonexistent, with the exception of Book Babies.

¹ Urban Institute. <http://www.urbanchildinstitute.org/why-0-3/baby-and-brain>

² <https://developingchild.harvard.edu/science/key-concepts/brain-architecture/>

³ McQuillan, Jeffrey (1998). *The Literacy Crisis: False Claims Real Solutions*. Heinemann.

⁴ Suskind, Dana. (2015). *Thirty million words: Building a child’s brain*. New York: Random House.

⁵ <http://www.craftinc.org/literacy-e-books/americas-early-childhood-literacy-gap.pdf>

⁶ L. Mapp, Karen & Kuttner, Paul. (2013). *Partners in Education: A Dual Capacity-Building Framework for Family-School Partnerships*.

⁷ Annie E. Casey Foundation. (2010). *Op.cit.*

Despite the lack of comparable programs, we want always to be measured against programs that are held to the highest standards of efficacy and scientific rigor. We are constantly surveying the landscape to learn if there are other programs that have a scientific basis for their work.

In 2018, we conducted a close study of the 10 home visiting programs and book provision programs whose primary focus is promoting child development and school readiness: Dolly Parton’s Imagination Library, Early Head Start-Home Visiting, Family Connects, HIPPIY, Minding the Baby, Nurse-Family Partnership, Parents as Teachers, Parent-Child Home Program, Play and Learning Strategies, and Reach Out and Read. The close study is available upon request and was based on information listed on the Administration for Children & Families Home Visiting Evidence of Effectiveness site: <https://homvee.acf.hhs.gov/>

Book Babies stands among these programs as having unique dosage, frequency, duration, costs, and potential outcomes.

INTRODUCTION TO BOOK BABIES

The Book Babies program is built upon four evidence-based activities:

- ***HOME VISITING***⁸, modeling strong “serve and return” communication between parents and children that stimulates early language development.
- ***BOOK PROVISION***⁹, an evidence-based means to enhance language development.
- ***DIALOGIC READING***^{10 11}, an interactive shared picture book reading practice designed to catalyze young children’s language and literacy skills, capitalizing on essential “serve and return” early literacy skills and parent-child reading behaviors.
- ***SUSTAINED FAMILY ENGAGEMENT***^{12 13}, sparked during home visits and shown to provide a strong framework for fostering relationships between parents and children that improve outcomes.

⁸<https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthInitiatives/HomeVisiting/pdf/programbrief.pdf>

⁹ Neuman, Susan B. and Moland, Naomi. Book Deserts: The Consequences of Income Segregation on Children’s Access to Print. Urban Education (1-22) Sage Publications.

¹⁰https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/WWC_Dialogic_Reading_020807.pdf

¹¹<https://ies.ed.gov/ncee/wwc/study/64505>

¹² Lin, Qiuyun (2003). Parent Involvement and Early Literacy. Family Involvement Research Digests. Harvard Family Research Project.

¹³ Kamerman, S.B. & Kahn, A.J. (1995). Starting right: How America neglects its youngest children and what can we do about it. NY: Oxford University Press



Book Babies is direct and personal, emphasizing the importance of shared reading. Every year, from a child's birth to age five, trained Book Babies home visiting professionals sit at kitchen tables or on living room floors with enrolled families, providing at least 20 new developmentally-appropriate, culturally-relevant books and sharing literacy strategies, tools and supports to nourish parents' roles as their baby's first and best teacher. As children approach ages four and five, families attend Pre-K and/or Kindergarten Information Sessions and attend transition meetings with the Book Babies expert Early Childhood Services Navigator who provides families with an effective warm hand-off to the educational system that will engage their children for the next 13 years.

By the time a child graduates from Book Babies and starts kindergarten, s/he will own at least 120 new books and will have received at least 11 literacy coaching home visits. A robust array of additional supports, including thrice-weekly reading tips via text message, family gatherings, and connections to additional resources, complement the home visiting program.

This unique combination provides unprecedented and remarkably inexpensive insurance that children arrive at school strong and ready to succeed -- on track to read proficiently in third grade, to graduate from high school, and to enter the workforce with the skills needed to realize upward mobility.



IMPLEMENTATION DESCRIPTION

During the five years of Book Babies program, families and community partners form close collaborations.

Referral partners include community-based organizations that serve low-income families (e.g. health, housing, employment, social services)

Book Harvest's professional home visitors are trained with the Book Babies *evidence-based curriculum* that is *book-centered, language-rich, and parent-focused*. The curriculum is the basis for the content and values that inform the program:

- **CONTENT:** Evidence-based literacy strategies derived from Dialogic Reading practices:
 - ***Phonological Awareness***¹⁴: the ability to detect or manipulate the sounds that make up words in spoken language, an essential precursor to reading.
 - ***Emergent Writing***¹⁵: when children begin to understand that writing is a form of communication and their marks on paper convey a message.
 - ***Print awareness***¹⁶: the knowledge of concepts about print.
- **VALUES:** The sacrosanct evidence-based¹⁷ belief that families know what is best for their children:
 - Embracing families as strong, resilient partners.
 - Focusing on families' strengths, rather than on their deficits.
 - Viewing families as experts on their child's growth and development.
 - Holding a mindset of engagement – rather than involvement.
 - Shifting power and decision-making **to** families – rather than for families; from doing for families to doing **with** families.

Home visitors meet with families in their homes three times each year from a child's birth until age four and once in the final year. Semi-annual events are held for all enrolled families, encouraging parent-to-parent networking and mentoring. Age-appropriate and culturally relevant text messages with literacy tips are sent to parents three times every week.

Book Harvest's Early Childhood Services Navigator provides families of four-year-olds with individualized assistance in their homes to identify their needs and take steps to enroll their Book Babies children in Pre-K and to successfully transition to Kindergarten.

¹⁴ <https://ies.ed.gov/ncee/wwc/EvidenceSnapshot/376>

¹⁵ <https://www.naeyc.org/resources/pubs/yc/nov2017/emergent-writing>

¹⁶ https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc_ece_protocol_v3.0.pdf

¹⁷ L. Mapp, Karen & Kuttner, Paul. (2013). Partners in Education: A Dual Capacity-Building Framework for Family-School Partnerships.

Parents/families are referred to Book Babies soon after birth. Home visitors come to their homes to explain the program and confirm enrollment, kicking off a five-year collaborative journey.

INCORPORATING FEEDBACK AND EVALUATION

The Book Babies program has an easily implementable and trackable compendium of English and Spanish evaluation and feedback tools that provides a continuous process for program improvement.

Home Visit Questionnaire

- # of books provided at every home visit to the enrolled baby and to all other children in the home.
- parents' skills and knowledge about early literacy strategies.

Book Babies Study Assessment Form

- # of children's books parents report having in their home.
- parents' self-report regarding skills, knowledge, and confidence about early literacy strategies and practices.

Book Babies Parent Survey:

- parents' self-report regarding the utility, applicability, and benefit of home visiting resources.

Standardized assessments to determine emergent literacy skills:

- Adult-Child Interactive Reading Inventory (ACIRI) at age 3
- Get Ready to Read! (GRTR!) at age 4
- MacArthur Bates Communicative Development Inventories (CDI) during every visit between the ages of 9 and 36 months.

Book Babies Data Compendium documents:

- materials provided to families
- attendance and participation at info sessions and events
- Pre-K applications completed and submitted
- Pre-K enrollment confirmations

FEASIBILITY OF SCALING

The distinct and distinguishing characteristics of Book Babies promise to ensure the feasibility of scaling:

- Book Babies provides a **unique duration, dosage, and frequency** for enrolled families.
 - Book Babies is the only program that:
 - starts at birth and continues all the way to kindergarten (**duration**);
 - provides a significant number of books (**dosage**); and
 - offers a schedule of home visits that is not difficult for parents to integrate into their busy and often challenging lives (**frequency**).
- Book Babies can have **population-level reach**.

- Book Babies' **home visit frequency** – three times per year – **is realistic and viable for families to commit to over time** (to date, Book Babies has a remarkably low attrition rate, with a longitudinal retention of 78%).
- **The cost of Book Babies is unmatched among its peers**, with a family's full participation costing less than \$5,000 over five years. This is a fraction of other programs' cost.
- Book Babies can be ***the* answer to the birth-to-five brain development opportunity** for which our country has long searched.
 - We have bold partners in this work: funders including Oak Foundation, Z. Smith Reynolds Foundation, and Kenan Charitable Trust, among others; thought partners including Ralph Smith, Managing Director of The Campaign for Grade-Level Reading and Kyle Zimmer, Co-Founder and CEO of First Book; corporate partners including Scholastic, Wells Fargo, PNC, and United Way.
 - The proof-point for this assertion is our **gold-standard two-location longitudinal Randomized Control Trial evaluation** with [HighScope Educational Research Foundation](#), nationally renowned for its contributions to the field of early childhood development including the landmark Perry Preschool Study and Parents as Teachers Innovative Approaches to Literacy.

###



**Book Babies Class of 2019 Graduation:
Kindergarten, here we come!**



Book Babies

A book harvest *program*



The power of **PARENTS**
to place their children on a path
to kindergarten readiness.

BOOKHARVESTNC.ORG

THE CHALLENGE



All parents need

BOOKS AND SUPPORT

for developing reading routines at home – starting at birth –
to set their children up to start kindergarten with
the literacy skills needed to succeed in school.

OUR RESPONSE



Book Babies provides parents with **AN ABUNDANCE OF BOOKS AND LITERACY COACHING HOME VISITS**

to help their children's early literacy blossom. Over five years, starting
at birth, we visit families to deliver new books and to provide literacy
coaching, giving parents the tools they need to be their baby's brain builder.

OUR REACH



In 2018, Book Babies provided

923 HOME VISITS and
9,790 BOOKS to
301 FAMILIES

with Medicaid-eligible newborns, babies, and
young children in Durham and Forsyth Counties.

Using Dialogic Reading During Home Visits to Enhance Early Literacy Development and Family Engagement

Meytal Barak, Book Harvest



Book Babies

A book harvest program

BACKGROUND

- 52% of low-income children are not kindergarten ready at age 5.¹
- Dialogic Reading strategies have been shown to promote interactive reading and to develop language and early literacy skills in children under age 6.²
- The Book Babies program delivers an adapted Dialogic Reading model through home visits to low-income children and their families to improve early literacy.
- Since 2013, we have worked with local partners to enroll Medicaid eligible newborns in Durham, NC.
- We seek to find out if Dialogic Reading implemented at home promotes the development of language and early literacy skills in children under 6 years of age.

1 https://www.brookings.edu/wp-content/uploads/2016/06/0319_school_disadvantage_isaacs.pdf
 2 https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/WWC_Dialogic_Reading_020807.pdf

OBJECTIVES

- Optimize a child's literacy development for a successful transition to kindergarten.
- Engage and partner with families to ensure development and practice of early literacy skills at home.

METHODS

- We performed quarterly home visit with families and children from birth to five years of age.
- We implemented Dialogic Reading strategies during the Book Babies home visits.
- We assessed reading practices by parental report.
- We implemented a short-term evaluation of Book Babies from 2015 - 2017.
- In a subset of families, we performed the Adult-Child Interactive Reading Inventory (ACIRI).

CONCLUSION

- Book Babies families increased their interactive shared picture book reading practices (Fig. 2).
- Participating families showed a trend toward increased scores in more interactive reading than comparison families (Fig. 3).
- Participating children showed a trend toward increased scores in pre-literacy skills (Fig. 4).
- A Randomized Control Trial (underway) is expected to provide further evidence in order to make a population level change in early childhood literacy.

RESULTS

Fig. 1 Demographic Data for Children

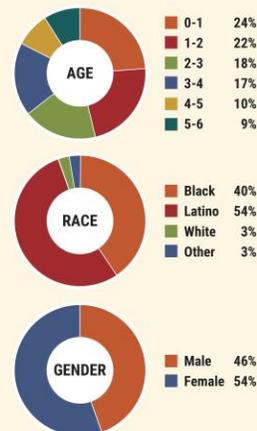


Fig. 2 Reading practices implemented by parents



Fig. 3 ACIRI Score Adult

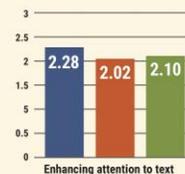
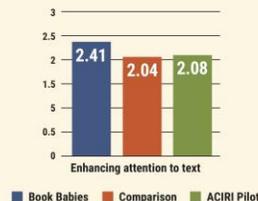
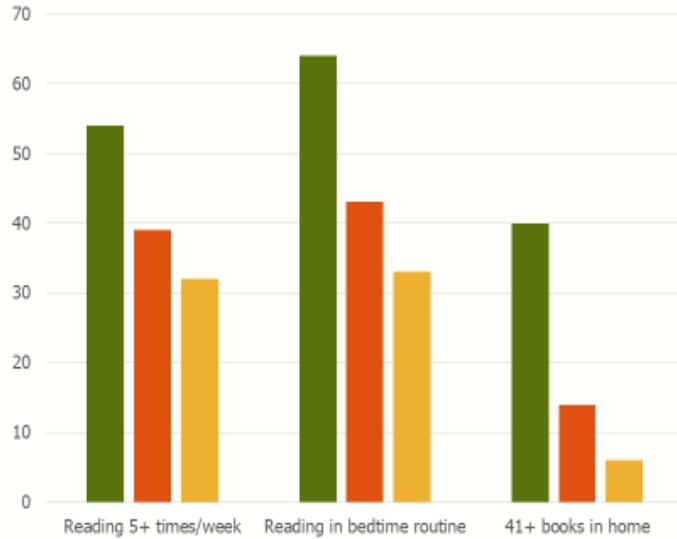


Fig. 4 ACIRI Score Child



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book babies RCT



**Early evaluation findings:
Families receiving the full Book Babies intervention
read with their children significantly more than
those receiving just books and
those in the control group.**