

Evidence that Basics Insights Text Messaging Increases Use of Key Birth-to-5 Parenting Practices and Reduces Initial Disparities Between Different Language Groups



KEY FINDINGS

Data from Surveys of Basics Insights Users

- At the time people register to receive Basics Insights text messaging, Spanish-speaking parents are less likely than English-speaking parents to report using caregiving practices closely related to The Basics Principles as measured in our survey.
- After 3.5 months of receiving Basics Insights, both language groups report increased use of key practices and there is less of a gap between the groups.
- Regarding the same caregiving practices, there is no significant gap in reported behaviors between English and Spanish speakers in a random sample of Boston-area parents who had been receiving the messages for an average of 82 weeks (about 1.5 years).



The Basics Principles



**Maximize Love,
Manage Stress**



**Talk, Sing,
and Point**



**Count, Group,
and Compare**



**Explore through
Movement and Play**



**Read and
Discuss Stories**

INTRODUCTION

Approaches to early childhood caregiving vary across groups in the US because of both contemporary and historical circumstances—for example, socioeconomic factors and related stressors—in the US and other nations. As such, the actions we take today so that more of the nation’s children can thrive in school and life are helping write the latest chapters of long-term family stories.

In this context, advances in the science of early childhood development are a driving force. Efforts to spread the benefits of those advances are producing a surge in awareness regarding the critical period of early learning and brain plasticity that begins pre-natal and continues through the early elementary years.

Basics Insights is one such effort. It is a text messaging program of The Basics, Inc., and a key component of The Basics Strategy for making five science-based tenets dubbed The Basics Principles daily experiences for children aged birth to 5. The text messages deliver science-based facts and activity ideas twice-weekly beginning at the child’s birth, or later, and continuing until the fifth birthday. Content is calibrated to the child’s age.

For English- and Spanish-speaking parents, this Basics Insights Issue Brief shows baseline patterns among Basics Insights users in daily use of caregiving practices related to The Basics Principles and demonstrates how those patterns change while caregivers are receiving Basics Insights. In addition to language comparisons, the data permit comparisons by parental education levels and geographic locations, mostly in Massachusetts.



BASELINE PATTERNS

Baseline and follow-up surveys in the Basics Insights text messaging program ask parents and caregivers (collectively referred to as parents in this report) the following questions related to The Basics Principles.

“In the past week, how often did you:

1. talk to your child about either **your feelings or theirs?**”
2. talk to your child about **numbers** or count things?”
3. **play** with your child?”
4. **read** or look at books together?”

Parent-child interactions such as these matter earlier than people might expect. From the beginning, infants are aware of and affected by their surroundings and their interactions with parents promote bonding and brain development. Basics Insights text messages offer developmentally appropriate ways to begin these practices.

Exhibit 1 shows the percentages among 4,865 baseline respondents from communities around the US that report using at least three of these four practices daily. Using these practices least with the youngest infants is natural and expected. Therefore, all the curves start low on the vertical axis then slope steeply upward. In addition to the similarities, the graph shows clear differences related to race/ethnicity, language, and parental education, with the lowest line being for Spanish-language respondents.

Exhibit 1 | BASELINE DISPARITIES

Percentages of Baseline Survey Respondents Reporting 3 or 4 of the Caregiving Practices Daily, by Child’s Age, During the Week Prior to Registering for Basics Insights

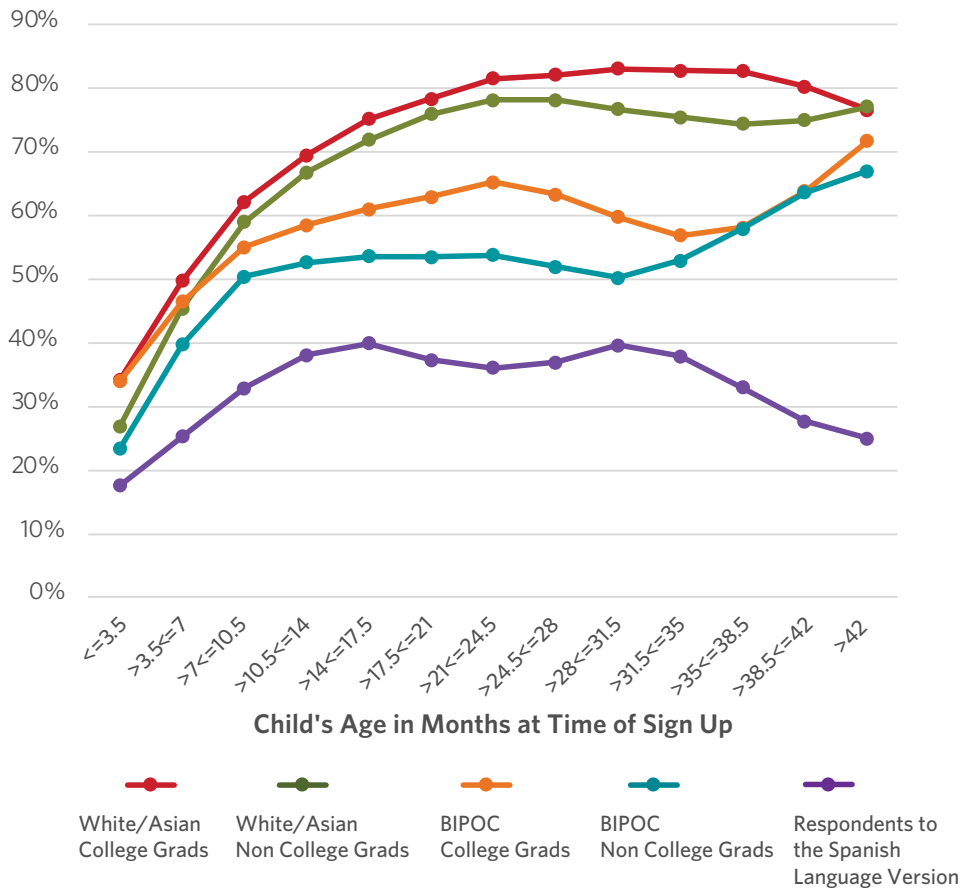


Table 1 shows baseline patterns for several groupings of Massachusetts locations, separately for Spanish- and English-language respondents and for each parenting practice. The locational grouping at the top of the table is for Boston's Roxbury, Mattapan, East Boston, and Dorchester neighborhoods where a high percentage of the city's less advantaged residents live and where The Basics is prioritizing its family engagement efforts. Note that in each locational grouping, Spanish-language respondents use the listed practices less. Note also that the pattern for Spanish-language respondents is similar across the different Massachusetts locations.

Table 1 | Baseline Percentages Reporting Daily Use of Each Respective Caregiving Practice During the Week Prior to Registering for Basics Insights

	FOUR CAREGIVING PRACTICES			
	Talk about feelings (the parent's or the child's)	Talk about numbers or count things	Play together	Read or look at books together.
LOCATIONS (Boston Priorities) Mattapan, Roxbury, East Boston, & Dorchester				
Spanish Language Respondents (N=117 responded of 400 enrollees)	51%	38%	50%	31%
English Language Respondents (N=199 of 516 enrollees)	68%	58%	69%	51%
LOCATIONS Other Boston Zip Codes				
Spanish Language Respondents (N=15 of 53 enrollees)	50%	40%	53%	47%
English Language Respondents (N=150 of 359 enrollees)	66%	58%	79%	69%
LOCATIONS Massachusetts Gateway Cities				
Spanish Language Respondents (N=136 of 458 enrollees)	57%	39%	51%	33%
English Language Respondents (N=113 of 311 enrollees)	73%	51%	77%	51%
LOCATIONS Other Massachusetts Cities & Towns				
Spanish Language Respondents (N=40 of 152 enrollees)	48%	45%	53%	33%
English Language Respondents (N=174 of 822 enrollees)	72%	64%	82%	72%
LOCATIONS Other US States				
Spanish Language Respondents (N=477 of enrollees 1,216)	59%	43%	60%	44%
English Language Respondents (N=3714 of 12,194 enrollees)	61%	52%	72%	63%

Combining the data from Massachusetts communities, patterns by parental education level are shown in Table 2, while Exhibits 2-5 show the same data graphically.

Note the differences within each parental-education category between Spanish- and English-language respondents. In addition, the lack of a clear relationship between parental education and parenting behaviors for Spanish-language parents is consistent with other recent research, where there was a relationship for English- but not Spanish-speaking parents between the mother’s education and the child’s vocabulary development.¹

Table 2 | Massachusetts Respondents by Parent Education Level Regarding Daily Activities with Their Child

	PARENT’S EDUCATION LEVEL			
	Less than a 2-Year Degree	2-Year Degree	4-Year Degree +	Total
Percentage reporting that they talk daily to the child about feelings.				
English Survey	68%	73%	71%	70%
# Responses	275	52	496	823
Spanish Survey	55%	44%	46%	53%
# Responses	231	18	48	297
Percentage reporting that they talk daily about numbers or count things.				
English Survey	53%	72%	62%	60%
# Responses	278	53	494	825
Spanish Survey	43%	33%	26%	40%
# Responses	232	18	47	297
Percentage reporting that they play together daily.				
English Survey	70%	71%	83%	78%
# Responses	279	52	497	828
Spanish Survey	50%	50%	54%	51%
# Responses	236	18	48	302
Percentage reporting that they read or look at books together daily.				
English Survey	48%	58%	74%	64%
# Responses	280	53	498	831
Spanish Survey	33%	44%	29%	33%
# Responses	235	18	48	301

¹ Friend, M., Lopez, O., De Anda, S., Abreu-Mendoza, R. A., & Arias-Trejo, N. (2022). Maternal education revisited: Vocabulary growth in English and Spanish from 16 to 30 months of age. *Infant Behavior and Development*, 66, 101685.

As noted above, Exhibits 2-5 show the same information as Table 2.

EXHIBIT 2

Baseline percentage reporting they talk daily with their child about feelings (theirs or the child's).

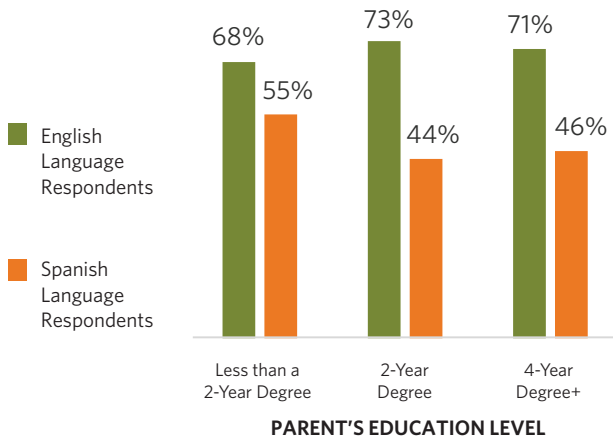


EXHIBIT 3

Baseline percentage reporting they talk daily about numbers or count things with their child.

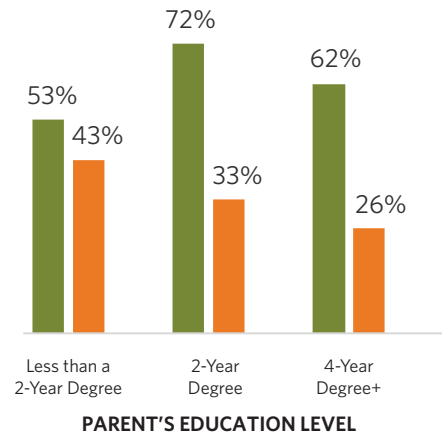


EXHIBIT 4

Baseline percentage reporting they play daily with their child.

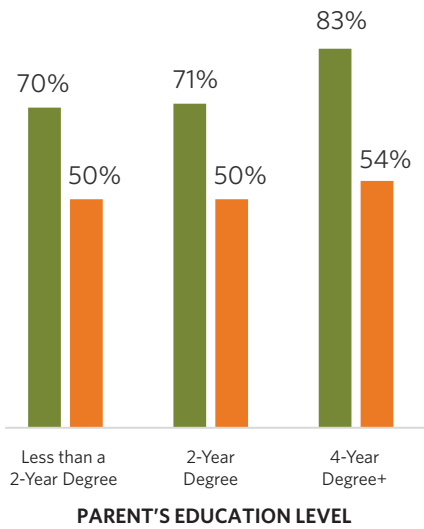
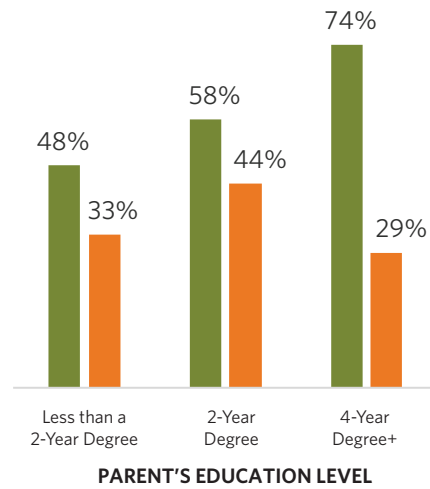


EXHIBIT 5

Baseline percentage reporting they read or look at books together daily.



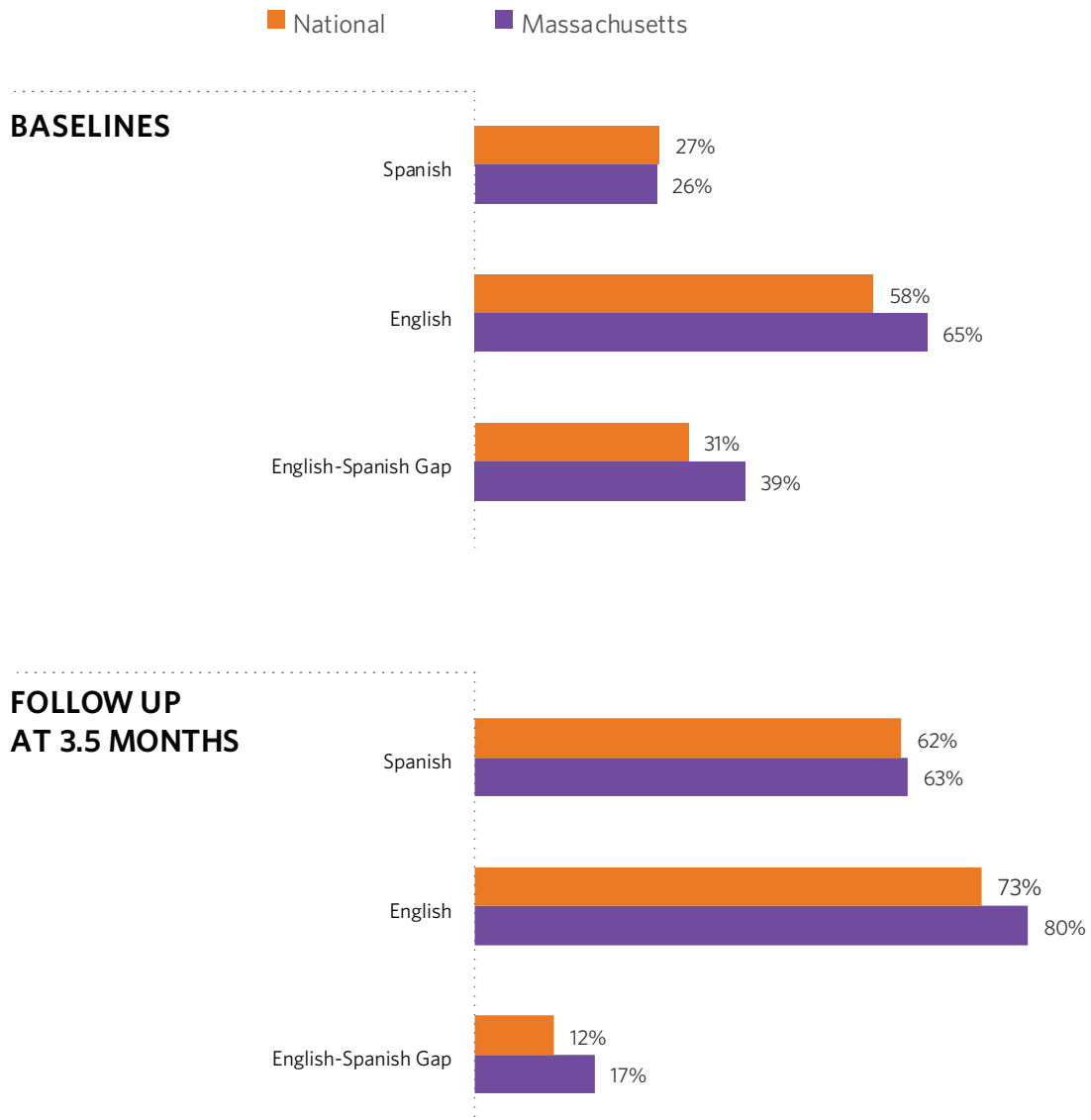
CHANGES: BASELINES COMPARED TO 3.5-MONTH FOLLOW-UP

All users who sign up to receive Basics Insights are invited (but not required) to complete the baseline survey when they enroll. Then after 3.5 months, they are asked to complete a follow-up survey with many of the same items.

For parents who responded to both the baseline and follow-up surveys, Exhibit 6 shows the baseline and follow-up percentages using at least 3 of the 4 practices daily. For National (representing the full US sample) and Massachusetts, the chart shows that Spanish language respondents achieve a narrowing of the gap with English language respondents at 3.5 months of receiving Basics Insights text messages. In addition, comparing the baseline and follow-up percentages for both language groups, the data show impressive within group improvement over time.

EXHIBIT 6

Baseline and Follow-Up Percentages Reporting That They Use at Least 3 of the 4 Caregiving Practices Daily, for a Matched Sample of Parents Who All Responded to Both the Baseline and the Follow-up Survey



BASELINES COMPARED TO A RANDOM SAMPLE OF USERS

Thus far, we’ve offered evidence that Basics Insights leads to improved parenting practices after 3.5 months of receiving the texts. A paper by Boston College Professor Shawn Dougherty (available on request) using a more extensive statistical analysis of the same data comes to a similar conclusion—that the text messages are having the desired effect.

However, since not everyone answers the baseline or 3.5-month survey, a question remains about how generalizable the findings are to the entire population of users, including nonrespondents to the baseline or 3.5-month surveys.

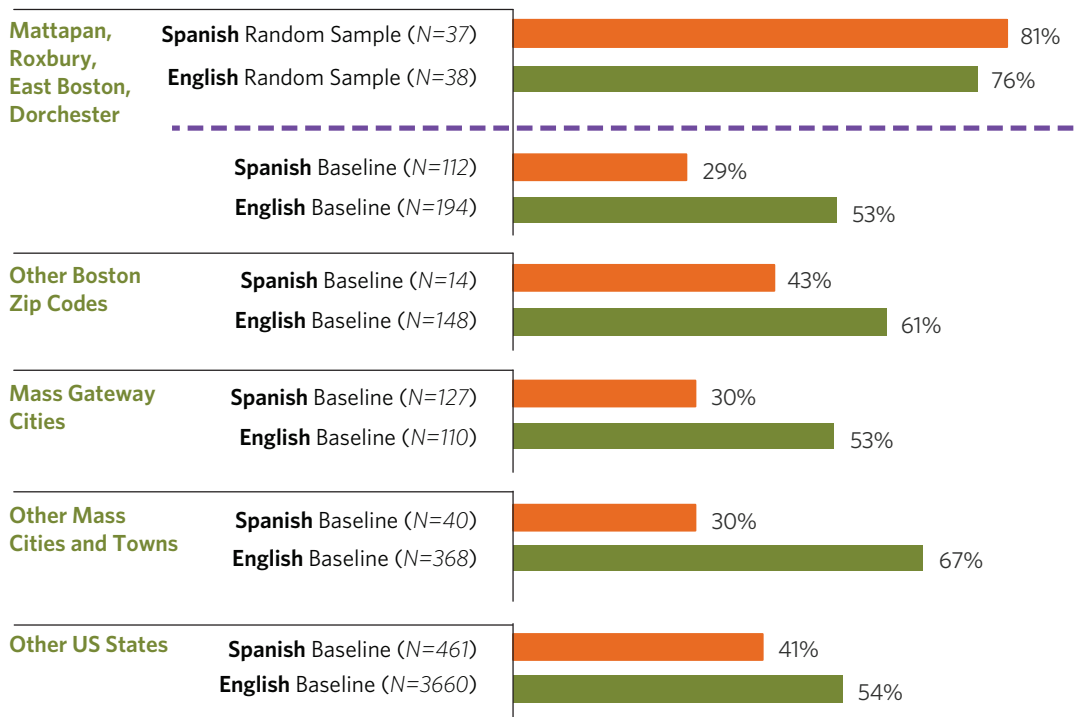
To help answer that question, we conducted phone interviews with a randomized sample of Boston-area nonrespondents to the baseline survey. If parents in this random sample show a high level of engagement with the caregiving practices, we can be more confident in concluding that positive gains are experienced across the full population of users.

A bilingual interviewer conducted phone interviews with 38 English and 37 Spanish speakers randomly selected from nonrespondents in Roxbury, Mattapan, East Boston, and Dorchester. Parents were asked the same caregiving questions as on the baseline and 3.5-month follow-up surveys. Forty percent of calls resulted in completed interviews and the average respondent had received messages for 82 weeks by the time our interviewer spoke with them.

Comparing results from the randomly sampled phone survey group to the baseline responses from online respondents described in the previous section, the top two bars on Exhibit 7 show that 81% of the 37 Spanish parents and 76% of the 38 English respondents in the priority neighborhoods reported using at least 3 of the 4 practices daily. The third and fourth bars from the top of the exhibit show 29% for “Spanish Baseline” and 53% for “English Baseline” from the same neighborhoods.

EXHIBIT 7

Randomized Phone Survey Percentages of Baseline Non-Respondents from Priority Neighborhoods Using 3 of the 4 Caregiving Practices Daily, Compared to Baseline Survey Percentages from the Same Neighborhoods and Other Localities



This comparison between the top two and the next two bars suggests that the phone survey group benefitted from their 82 weeks of receiving Basics Insights. Labels on the remainder of the exhibit represent baselines for the same locational groupings as on Table 1.

Note that the random sample values from the priority neighborhoods exceed all of the baselines on the exhibit, reinforcing the argument that the prolonged exposure to Basics Insights has encouraging implications and Dougherty’s positive impact findings are generalizable to the entire sample of respondents and nonrespondents to baseline and 3.5-month surveys conducted online.

CONCLUSION

Compared to English-language respondents, Spanish-language respondents to baseline surveys report less talking about feelings, counting and talking about numbers, playing together, and reading and looking at books with their children.

However, by 3.5 months after enrolling—based on a matched sample who responded to both the baseline and the follow-up surveys—the gap is narrowed. Initial gaps between Spanish and English samples of 39 percentage points for Massachusetts and 31 percentage points in the National data, are reduced to 17 and 11 percentage points after 3.5 months in Massachusetts and National data, respectively, with regard to using at least 3 of the 4 caregiving practices daily. In addition, gains from baseline to 3.5 months for each group separately, are indicative that Basics Insights helps both groups.

The randomized phone sample was selected from users in Boston's priority neighborhoods—Roxbury, Mattapan, East Boston, and Dorchester—who had not responded to the baseline survey. Both Spanish- and English-language respondents reported high engagement, with 81% of the Spanish respondents and 76% of English respondents reporting daily use of 3 or 4 of the focal practices after approximately 1.5 years of receiving the texts. These percentages from parents who were randomly selected because they had not responded to the baseline survey, exceed all of the baseline values of those who did respond.

A companion paper (available upon request) using the randomized survey data, concludes that two-thirds or more of the difference between the random survey responses and baselines submitted by others are causal impacts of receiving Basics Insights. That paper accounts for the fact that parenting adjusts normally as children get older. It takes the difference between parenting behavior without Basics Insights for a child of a given age (based on the child-age pattern in baseline data) and the behaviors reported in the random sample (following exposure over 1.5 years), to estimate *impacts* due to Basics Insights.

Overall, results from our random phone survey provide additional evidence of the favorable effects of Basics Insights over time and help substantiate an argument for generalizing these findings to all caregivers, regardless of whether or not they responded to the Basic Insights embedded surveys.

However, even with random sample, there are some limitations to this study that deserve mention. One is a self-selection issue with respect to who answers the phone and agrees to do the survey. Another is the possibility of self-reporting bias since people may misrepresent their behavior. And there is a likelihood that some of the impacts measured are bolstered by the interpersonal support that parents receive from the service providers who encourage them to make The Basics Principles daily routines.

BOTTOM LINE

While not yet definitive, current analyses of Basics Insights data reported here and elsewhere are highly suggestive of the conclusion that receiving Basics Insights messages has positive impacts on parenting behaviors. Research indicates that these behaviors in turn have positive impacts on early learning and brain development.

In addition to the positive implications for all families, the findings provide further justification for special efforts to share Basics Insights with families where Spanish is the primary language.

Special thanks to the sponsors who make this work possible, especially Boston Children's Hospital for commissioning the randomized phone survey of Boston parents and to the Eastern Bank Foundation for its ongoing partnership.

Thanks also to the Black Philanthropy Fund, the Liberty Mutual Foundation, The Boston Foundation, The Baupost Group, the A. C. Ratshesky Foundaton, The Nordblom Family Foundation, and our other sponsors, our board members, and to the many partner organizations that help register parents for Basics Insights and support making The Basics Principles daily routines.



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