



The Development and Home Environments of Low-Income Hispanic Children: Kindergarten to Third Grade

Christina M. Padilla, Natasha Cabrera, and Jerry West

September 2017

Why research on low-income Hispanic children and families matters

Hispanic or Latino children currently make up roughly 1 in 4 of all children in the United States,^a and by 2050 are projected to make up 1 in 3, similar to the number of white children.^b Given this increase, how Hispanic children fare will have a profound impact on the social and economic well-being of the country as a whole.

Notably, though, 5.7 million Hispanic children, or one third of all Hispanic children in the United States, are in poverty, more than in any other racial/ethnic group.^c Nearly two thirds of Hispanic children live in low-income families, defined as having incomes of less than two times the federal poverty level.^d Despite their high levels of economic need, Hispanics, particularly those in immigrant families, have lower rates of participation in many government support programs when compared with other racial/ethnic minority groups.^{e-g} High-quality, research-based information on the characteristics, experiences, and diversity of Hispanic children and families is needed to inform programs and policies supporting the sizable population of low-income Hispanic families and children.

^a Federal Interagency Forum on Child and Family Statistics. (2017). *America's children: Key national indicators of well-being, 2017, Table POP3*. Washington, D.C.: Government Printing Office. Retrieved from <http://www.childstats.gov/americaschildren/tables.asp>

^b Ibid.

^c DeNavas-Walt, C., & Proctor, B.D. (2015). *Income and Poverty in the United States: 2014, Table B-2, Current Population Reports, P60-252*. Washington, D.C.: U.S. Department of Commerce, U.S. Census Bureau. Retrieved from <http://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf#TableB-2>

^d Lopez, M. H., & Velasco, G. (2011). *Childhood poverty among Hispanics sets record, leads nation*. Washington, D.C.: Pew Research Hispanic Center. Retrieved from <http://www.pewhispanic.org/2011/09/28/childhood-poverty-among-hispanics-sets-record-leads-nation/>

^e Williams, S. (2013). *Public assistance participation among U.S. children in poverty, 2010*. Bowling Green, Ohio: National Center for Family & Marriage Research. Retrieved from <http://www.bgsu.edu/content/dam/BGSU/college-of-arts-and-sciences/NCFMR/documents/FP/FP-13-02.pdf>

^f Lichter, D., Sanders, S., & Johnson, K. (2015). *Behind at the starting line: Poverty among Hispanic infants*. Durham, NH: University of New Hampshire, Carsey School of Public Policy. Retrieved from <http://scholars.unh.edu/cgi/viewcontent.cgi?article=1250&context=carsey>

^g Child Trends Databank. (2014). *Health care coverage*. Bethesda, MD: Child Trends. Retrieved from <http://www.childtrends.org/?indicators=health-care-coverage>

Overview

Individual and family-level factors are linked to the healthy development of Hispanic^a children.¹¹⁻¹⁴ At the individual level, children who succeed academically and have strong interpersonal skills tend to fare well across the course of their lives.^{1,9,10} Importantly, these successes and skills are shaped by the family or home environments in which children grow up—both by family resources (e.g., family structure and parental education)^{2,16,19} and by engagement in cognitively stimulating activities (e.g., reading, counting games)¹⁵⁻¹⁸. It is often challenging to disentangle individual from family-level factors, but examining both simultaneously can help stakeholders—including teachers, policymakers, and parents—determine how to strategically allocate often limited resources aimed at supporting Hispanic children and families.

This brief used the Early Childhood Longitudinal Study-Kindergarten Class of 2010–2011 (ECLS-K: 2011) to describe the academic achievement, social skills, and family environment of low-income^b Hispanic children from kindergarten through third grade, as compared to their white and black peers. Specifically, this brief addresses the following questions:

- How do low-income Hispanic children's academic and social skills from kindergarten entry through third grade compare to those of their non-Hispanic white and black peers?
- How do low-income Latino children's family resources (i.e., family structure, parental education) and engagement in cognitively stimulating activities (e.g., reading, counting games) compare to those of their white and black peers?

^a In this brief, we use the terms Hispanic and Latino interchangeably.

^b Families with incomes at or below 200 percent of Federal Poverty Line. For more information, see <https://aspe.hhs.gov/poverty-guidelines>.

Key Findings

Academic skills

- Differences in low-income white, black, and Hispanic children's reading and math skills were present at the start of kindergarten. Specifically, Hispanic children scored below their white and black peers in reading, and below their white peers (but equal to their black peers) in math.
- Although all groups experienced *gains* in academic skills over time, group differences *persisted* through the end of third grade—the end of the study period. Specifically, low-income Latino children consistently performed below their white peers in reading and math, but similar to or better than their black peers.

Social skills

- Teachers consistently rated low-income Latino children's interpersonal skills as being on par with those of their white peers and equal to or greater than those of their black peers.
- Teachers also reported that low-income Hispanic children had the same or fewer behavioral problems than their white peers and fewer problems than their black peers.^c

Home environments

- Low-income Hispanic children had parents with lower levels of education than their white and black counterparts.
- Their parents also engaged in cognitively stimulating activities less frequently than the parents of their white and black peers.
- However, low-income Latino children were more likely to live with both biological parents than were their peers.

Background

Academic performance in early elementary school is strongly connected to future academic success,¹ but large and persistent gaps in reading and math achievement between white and racial/ethnic minority children are well-documented.²⁻⁶ In 2015, the National Assessment of Educational Progress (NAEP), also known as the Nation's Report Card, reported that Hispanic and black fourth graders were scoring behind their white peers in math by 18 and 24 points, respectively, and in reading by 24 and

26 points, respectively.^{7,8} However, most research on the academic differences between Hispanic and white children in the early years—from kindergarten to third grade—fails to account for the fact that Latino children are more likely to live in economically disadvantaged households than white children. Focusing specifically on low-income children allows us to better avoid this challenge.

Children's social skills—including interpersonal skills and externalizing behavior problems—are as important as their academic skills. Children with better social skills have better long-term outcomes, including higher educational attainment and earnings, than children with poorer social skills.^{9,10} On average, Latino children's social skills are equal to those of their peers.^{2,11-14} Still, how these skills develop over time is not well understood.

Multiple studies have shown that important contributors to children's academic and social skills include children's home environments—specifically, home resources and parental cognitive stimulation during early childhood.^{2,15-18} Home resources include parental education and family structure (e.g., whether children live with both parents or only one). Parental cognitive stimulation at home includes literacy- and numeracy-supporting activities between parents and children (e.g., reading books, telling stories, singing songs, counting, playing games, or doing puzzles) that promote the development of both cognitive and social skills. Compared to their peers, Hispanic children are more likely to be reared in homes with parents who have completed fewer years of formal education, and are less likely to be exposed to frequent parental cognitive stimulation.¹⁹ However, they are also more likely to live in two-parent families that are relatively high-functioning (e.g., less marital conflict than other groups report).²⁰⁻²² It is thus unsurprising that, although Latino children's cognitive skills often lag behind their peers, their social skills are, on average, equal to or better than their peers.¹⁹ The question that remains is how the relative advantages and disadvantages of low-income Hispanic children's experiences in their early years (infancy to pre-kindergarten) play out in terms of their academic and social skills as they move into the early formal schooling years (kindergarten to third grade).

^c Teacher reports are subjective and may be subject to bias. See section on limitations.

Data Source and Methodology

Data. This brief used data from the ECLS-K: 2011, a large, nationally representative study of children who attended kindergarten in 2010 ($N \approx 18,170$).^a Data were collected from direct child assessments and parent and teacher surveys from the fall of kindergarten through fifth grade. The current study includes data on low-income children from the fall and spring of kindergarten, and from the spring of first, second, and third grades.^b Low-income is defined as a household income at or below 200 percent of the federal poverty level (\$24,600 for a family of four in 2017, measured at the fall-kindergarten wave [$N \approx 6,460$]).

Analytic Sample. To ensure that the analytic sample was representative of all children *entering* kindergarten in 2010, children who were repeating kindergarten in the first wave (fall of 2010; $N \approx 380$) were excluded.^c This sample was further limited to low-income children who had completed either child assessments of reading or math at each time point, and for whom teacher reports of interpersonal skills and externalizing behavior problems were available at each time point ($N \approx 2,290$).^{d,e} The sample was approximately 41 percent white, 39 percent Hispanic, and 20 percent black. All analyses are weighted to account for the study's complex design and to adjust for differential selection probabilities at each wave, for differential response, and over time attrition. The application of weights allows for estimates to be representative of children entering kindergarten for the first time in fall 2010 and who attended first, second, and third grades in the three subsequent school years.^f

Measures. Children's developmental outcomes in four domains were assessed from two different sources: direct child assessments of math and reading,^g and teacher reports of children's interpersonal skills and externalizing behavior problems.^h Parenting behaviors—including frequency of reading and cognitive stimulation in the home—and demographic information were reported by parents at the beginning of kindergarten and, when available, at the end of first, second, and third grades. Our measure of cognitive stimulation (available only at the kindergarten waves) was an average of the frequency with which parents (mostly mothers) reported that someone in the family did the following eight things with their children: read books; tell stories; sing songs; do arts and crafts; play games or do puzzles; talk about nature or do science projects; build things; and practice reading, writing, or working with numbers.

Analyses. This brief noted significant group differences (at the $p < 0.05$ level) between low-income Hispanic children and their low-income white and black peers. For ease of interpretation and consistent with past work, each additional point on the math and reading scales can be considered equivalent to about 2 weeks of learning, on average.^{i,j} Note that this is an *average* approximation and therefore does not signify the rate of learning for every child. For social skills scores, effect size differences were computed and the magnitude of effect sizes was determined using Cohen's (1988) conventions for small (less than .2), medium (.2 to .5), and large (greater than .5) effects.^k

^a Ns are rounded to the nearest 10 per NCES data restriction regulations.

^b Assessment data from fall of first and second grades were not included because only a subsample of children were assessed at those times; children were not assessed in the fall of third grade.

^c The first, second, and third grade samples included some children who either repeated a grade or were promoted to the next grade ahead of schedule (e.g., first-time kindergartners in 2010 who repeated or skipped a subsequent grade; $N \approx 100\text{--}150$); thus, these are the grade levels for the large majority (but not all) of the children in the sample.

^d We chose to restrict our sample in this way to ensure comparison of the same children over time. However, this decision restricted the sample size, as nonrespondents at any given wave were not included. Although the use of NCES weights account for nonresponse over time, we also performed sensitivity analyses in which all children who had math and reading or interpersonal skills and externalizing behavior problems scores at any time point were retained, such that the makeup of each race/ethnicity sample varied slightly over time. This involved use of cross-sectional weights at each time point that accounted for differential nonresponse at that time point only (rather than over all the examined time points). These analyses were remarkably similar to those presented here, with only minor differences. Specifically, in the sensitivity analyses, Hispanic children scored lower than black children in math in the fall of kindergarten (rather than equal to them) and lower than Black children in the spring of kindergarten in reading (rather than equal to them). Latino children were reported to have fewer externalizing behavior problems than white children in the fall and spring of kindergarten (rather than having equal scores). Overall, the pattern of results was no different in these sensitivity checks.

^e We chose to use teacher reports (rather than parent reports) of interpersonal skills and externalizing behavior problems because they are often considered more objective than parent reports, and because parents were not asked to rate children's social skills in the second or third grade waves.

^f Tourangeau, K., Nord, C., Wallner-Allen, K., Vanden-Kiernan, N., Blaker, L., & Najarian, M. (2016). *Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K: 2011) user's manual for the ECLS-K: 2011 Kindergarten-Third Grade data file and electronic codebook, restricted version (NCES 2016-092)*. Washington, DC: National Center for Education Statistics. Retrieved from <https://nces.ed.gov/pubs2015/2015078.pdf>

^g We use item-response-theory-based overall scale score for both math and reading. This score is an estimate of the number of items a child would have answered correctly in each data collection round if he or she had been administered all questions for that domain.

^h NCES adopted these scales from the Social Skills Rating System (SSRS) developed by Gresham and Elliott (1990).²⁴ Individual items from these scales are not available due to copyright restrictions.

ⁱ Murphey, D., Madill, R., & Guzman, L. (2017). *Making math count more for young Latino children*. Bethesda, MD: Child Trends. Retrieved from <https://childtrends-ciww49tixgw5l-bab.stackpathdns.com/wp-content/uploads/2017/02/Early-Math-Report-2.8.pdf>

^j Sigle-Rushton, W., & McLanahan, S. (2004). *Father absence and child wellbeing: A critical review*. New York, NY: Russell Sage Foundation.

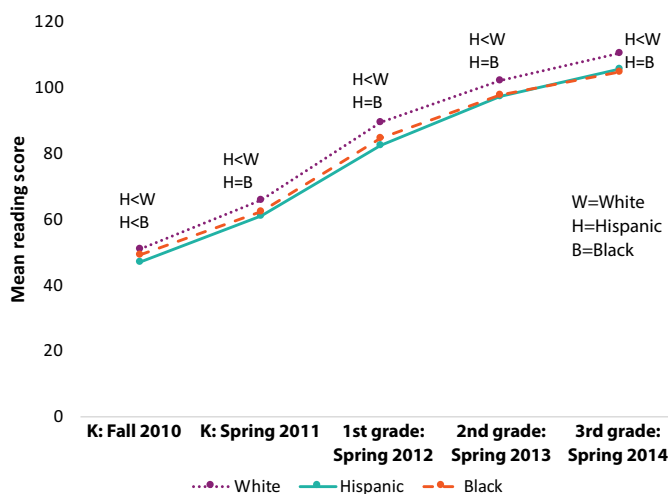
^k Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.

Findings

Academic skills

Reading. As shown in Figure 1, low-income Hispanic children scored significantly lower on measures of reading skills than their white peers, from the fall of kindergarten through third grade. These differences represent about 8 to 14 weeks of learning for the typical child for reading (4.10–6.94 points). In contrast, low-income Latino children lagged behind their black peers in reading at the start of kindergarten—a difference roughly equivalent to 5 weeks of learning (2.43 points), but quickly caught up by the end of kindergarten.

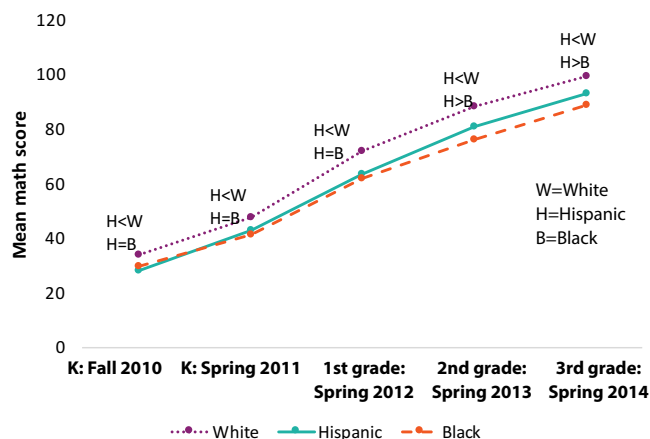
Figure 1. Low-income Hispanic Children Score Behind White Peers in Reading from Kindergarten Through Third Grade



Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.
Note: Significant group differences (<, >) are noted at the $p < 0.05$ level; "=" indicates no significant difference between groups.

Math. Figure 2 shows that low-income Hispanic children also scored significantly lower on measures of math skills than their white peers, from the fall of kindergarten through third grade. These differences represent about 10 to 17 weeks of learning for math (5.01–8.50 point). However, there were no differences in low-income Hispanic and black children's math scores until the end of second grade, when Latino children began to outperform their black peers by about 9 weeks of learning (4.69 points). Latino children continued to out-perform their black peers at the end of third grade by 9 weeks of learning (4.35 points).

Figure 2. Low-income Latino Children Consistently Lag Behind White Peers in Math, but Begin to Outperform Black Peers by Second Grade

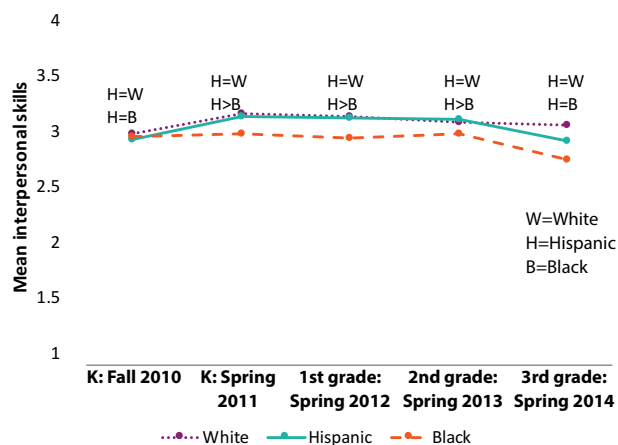


Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.
Note: Significant group differences (<, >) are noted at the $p < 0.05$ level; "=" indicates no significant difference between groups.

Social skills

Interpersonal skills. As shown in Figure 3, there were no group differences in the teacher reports of interpersonal skills between low-income Hispanic and white children at kindergarten entry through third grade. Teachers rated Hispanic children as having greater interpersonal skills than their black peers at the end of kindergarten, first, and second grades. The size of these differences is medium in magnitude ($d = 0.22$ – 0.30).

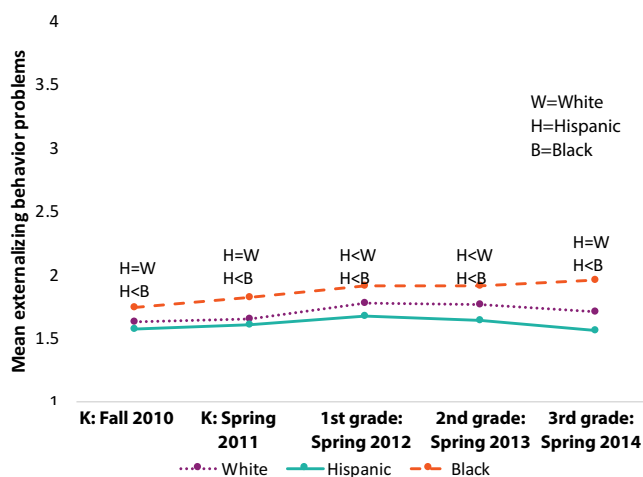
Figure 3. Low-income Hispanic Children's Interpersonal Skills Equal or Exceed Those of Their Peers Throughout Early Elementary School



Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.
Note: Significant group differences (<, >) are noted at the $p < 0.05$ level; "=" indicates no significant difference between groups.

Externalizing behaviors. As shown in Figure 4, teachers rated low-income Hispanic children as exhibiting the same or lower levels of externalizing behavior problems as low-income white children across grades. By the end of first and second grade, teachers reported that low-income Hispanic children had fewer externalizing behavior problems than their white peers. The magnitude of this difference, however, is small to medium ($d = 0.17$ – 0.21). At the same time, teachers consistently rated Latino children as exhibiting fewer externalizing behavior problems than their black peers from kindergarten through third grade. The size of these differences is medium in magnitude ($d = 0.29$ – 0.46).

Figure 4. Teachers Report that Low-income Latino Children Generally Have Equal or Fewer Behavior Problems than Early Elementary School Peers



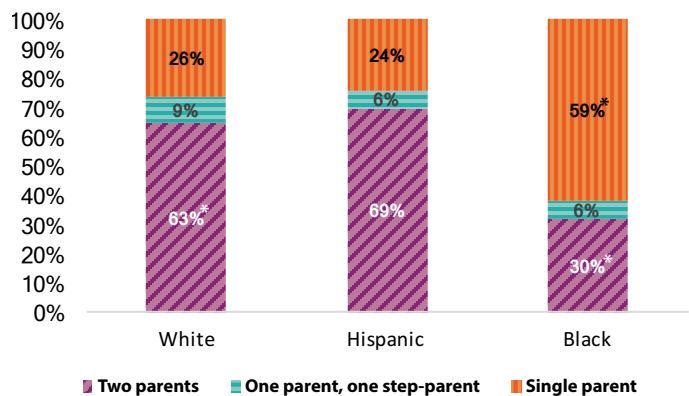
Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.

Note: Significant group differences (<, >) are noted at the $p < 0.05$ level; "=" indicates no significant difference between groups.

Home environment

Family structure. As shown in Figure 5, most low-income Latino and white children lived in two-parent households at the beginning of kindergarten (69% and 63%, respectively), mainly with biological or adoptive parents. Low-income Hispanic children were more likely than low-income white children to live with two biological parents; by contrast, most low-income black children lived in single-parent families. Although there was a slight decline in the percentage of children living in two-parent households over time, these overall patterns remained fairly consistent through third grade (see Table A1).

Figure 5. At Kindergarten Entry, Most Low-income Latino and White Children Live in Two-parent Households



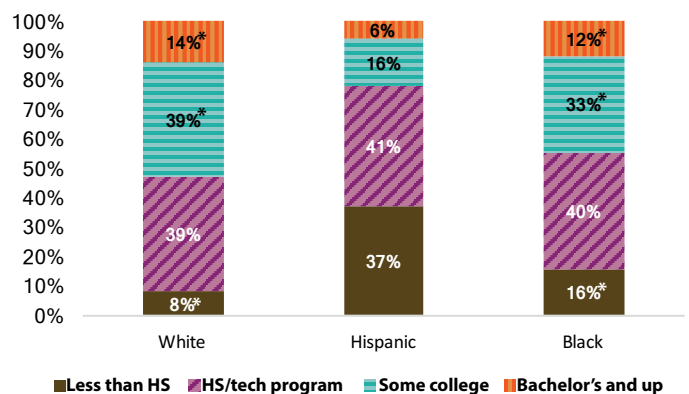
Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.

Notes: Two-parent = two biological or adoptive parents.

Estimates with an asterisk (*) are significantly different than those for Hispanic children at $p < .05$.

Parental education. Figure 6 shows that the mothers of the low-income Hispanic children in this sample had lower education levels than the parents of low-income white and black children. At kindergarten entry, 37 percent of low-income Hispanic children had mothers with less than a high school education, compared with 8 percent of white and 16 percent of black children. Twenty-two percent of low-income Latino children had mothers with some college or more, compared with 54 percent of white and 44 percent of black children. These patterns remained similar through third grade (see Table A2). In general, paternal education levels were somewhat lower than maternal levels, but group differences were similar (also see Table A2).

Figure 6. At Kindergarten Entry, Low-income Hispanic Children's Mothers Have Lower Education Levels than Mothers of White and Black Children

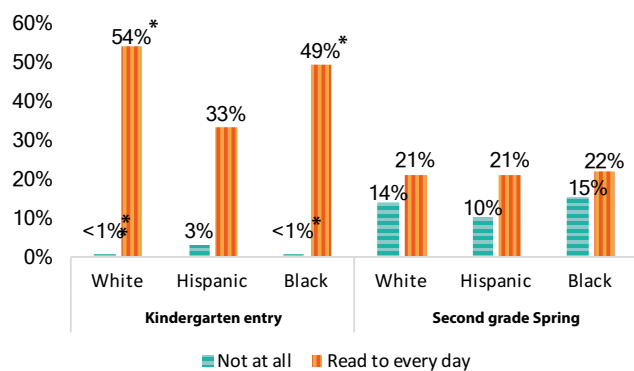


Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.

Note: Estimates with an asterisk (*) are significantly different than those for Hispanic children at $p < .05$.

Reading with children. At kindergarten entry, virtually all low-income parents reported reading to their children on a regular basis (≥ 3 times per week) (see Table A3). Nonetheless, as shown in Figure 7, low-income parents of Latino children were more likely to report never reading to their children (3%) than were the parents of white and black children ($<1\%$). Low-income parents of Hispanic children were also less likely to report reading to their children every day (33%) than were parents of white (54%) and black (49%) children. By the end of second grade, however, there were no race/ethnic differences in frequency of book reading.

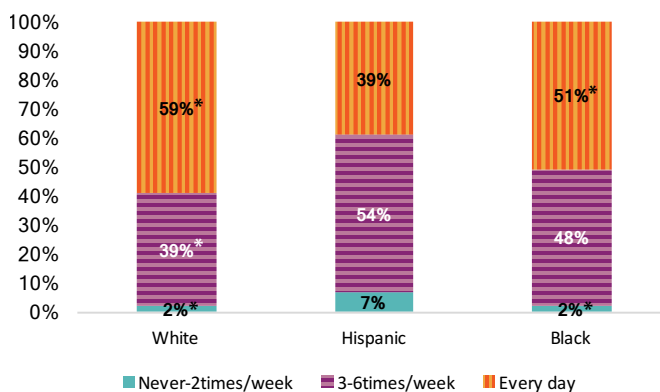
Figure 7. At Kindergarten Entry, Low-income Hispanic Children are Read to Less than Peers, but Differences Disappear by Second Grade



Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.
Note: Estimates with an asterisk (*) are significantly different than those for Hispanic children at $p < .05$.

Parental cognitive stimulation includes a range of literacy-supporting activities (e.g., reading books; telling stories; singing songs; doing arts and crafts; playing games or doing puzzles; etc.) that parents engage in with their children. As shown in Figure 8, many low-income Hispanic (54%), black (48%), and white (39%) children's parents reported engaging in these types of activities three to six times per week during the kindergarten year. However, Hispanic children's parents were less likely to engage in these activities every day (39%) than were parents of black (51%) and white children (59%).

Figure 8. Low-income Hispanic Children's Parents Less Likely to Engage in Daily Cognitively Stimulating Activities with Children



Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.
Note: Estimates with an asterisk (*) are significantly different than those for Hispanic children at $p < .05$.

Discussion

One goal of this brief was to examine differences in the academic and social skills of low-income Latino children and their low-income white and black peers from kindergarten through third grade—a critical period in children's development and academic learning. Hispanic children consistently performed below their white peers academically, and similar to or better than their black peers. By contrast, teachers consistently rated Hispanic children's interpersonal skills as being on par with those of their white peers and greater than their black peers, and reported that they had the same or lower levels of behavioral problems. These findings are consistent with previous work and suggest that, despite academic difficulties, low-income Latino children have the appropriate and relevant social skills needed to succeed in their early elementary years.^{11,14} This is an important finding because children who have better social skills have better long-term outcomes across a range of domains than children who exhibit social difficulties.^{9,10}

However, our findings also suggest that social competence might not be enough to overcome other challenges (e.g., less frequent cognitively stimulating experiences in the home) that make it MORE difficult for Hispanic children to develop the academic skills needed to succeed in school, at least at the level of low-income white children. Latino parents may need more help preparing their children for academic readiness. Programs might find ways to take advantage of young Hispanic children's strong social skills to promote their academic success, as some work

suggests that early interventions that promote social skill development successfully promote academic success as well.²⁶

A second goal was to examine the home environments of low-income children. The findings show that the early home experiences of low-income Hispanic children—parents' resources and investments in cognitively stimulating activities—tend to be more limited than those of their peers, with one exception. As a group, Latino children tend to live in two-parent families, which has been linked to better outcomes across a range of domains for children, compared to living in single-parent households.²⁷ However, Hispanic parents have fewer years of formal education and tend to engage their children in fewer cognitively stimulating activities at home, which are strongly linked to children's cognitive and socioemotional outcomes.^{15,18,25-27} The challenges linked to lower levels of education and income might outweigh the relative advantage of living in two-parent families for the development of academic skills.

While the idea that parents' limited resources may, in part, explain children's difficulties in performing academic tasks makes sense when comparing low-income Hispanic children to low-income white children, it makes less sense when comparing Latino to black children. The fact that black children do not outperform Hispanic children academically despite having relatively greater home resources cannot solely be attributed to more Hispanic children living in two-parent families, as family structure (while important) tends to have only a modest effect on children's outcomes compared to other resources.¹⁹ This is an important area for future research.

Notably, Hispanic children's social skills are as good as those of their white peers and better than those of their black peers. Thus, the relative disadvantage of Hispanic children's early experiences, as compared to black and white children, does not seem to be a barrier for the development of social skills. Perhaps living in a two-parent family is more important for social than for academic skills (both white and Hispanic children are just as likely to live in two-parent households in kindergarten and first grade). However, another possible explanation is that home resources may not be the strongest predictors of group differences in social skills. Other important factors—such as parental sensitivity, family cooperation and conflict, discipline, and parental monitoring—were not assessed in this brief. Indeed, other studies have shown group differences in these domains.²⁸ There may also be some cultural practices (e.g., heightened family cohesion, also not assessed in this brief) that may promote and encourage social skills among Latino children. Understanding what aspects of the home environment are most important for which domains of development and for which ethnic group are important areas for future research.

Caveats and Limitations

The findings reported in this brief are of a descriptive nature. Thus, we do not formally estimate the associations between home resources, parenting investments, and children's outcomes. An additional limitation is that our measures of interpersonal skills and externalizing behavior problems were based on teacher reports, so any observed differences were due to teachers' perceptions rather than objective behavior differences.²⁹ Similarly, our measures of parental reading and cognitive stimulation were based on parent reports and are subject to potential reporter biases.



Appendix

Table A1: Family Structure of Low-income Children, by Race/Ethnicity and Grade Level

Fall Kindergarten	White	Hispanic (ref)	Black
Two parents	62.83*	69.21	30.30*
One parent, one step-parent	9.04	5.58	5.58
Single parent	26.03	23.65	58.73*
Spring 1st	White	Hispanic (ref)	Black
Two parents	60.56*	68.09	29.13*
One parent, one step-parent	12.00*	6.88	5.25
Single parent	25.21	23.13	59.58*
Spring 2nd	White	Hispanic (ref)	Black
Two parents	58.64*	66.34	28.46*
One parent, one step-parent	13.81*	7.85	6.75
Single parent	24.90	23.61	59.21*
Spring 3rd	White	Hispanic (ref)	Black
Two parents	56.79*	65.15	28.60*
One parent, one step-parent	13.64*	8.96	8.72
Single parent	26.66	23.99	57.31*

Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.

Notes: Two-parent = two biological or adoptive parents. *= $p < 0.05$ level.

Table A2: Parental Education of Low-income Children by Race/Ethnicity and Grade Level

	Maternal Education			Paternal Education		
Fall Kindergarten	White	Hispanic (ref)	Black	White	Hispanic (ref)	Black
Less than HS	7.91*	36.94	15.73*	13.02*	43.26	15.55*
HS/tech program	38.50	41.08	39.80	49.38	43.55	48.07
Some college	39.14*	16.40	32.97*	24.82*	8.98	27.53*
Bachelor's and up	14.45*	5.58	11.50*	12.77*	4.21	8.85
Spring 1st	White	Hispanic (ref)	Black	White	Hispanic (ref)	Black
Less than HS	7.98*	37.12	14.48*	12.15*	44.98	13.71*
HS/tech program	38.65	41.04	41.53	49.07*	41.29	47.61
Some college	38.73*	16.24	33.24*	26.04*	9.86	29.44*
Bachelor's and up	14.64*	5.60	10.75*	12.74*	3.87	9.24
Spring 3rd	White	Hispanic (ref)	Black	White	Hispanic (ref)	Black
Less than HS	7.70*	37.47	14.75*	11.19*	44.13	11.61*
HS/tech program	38.26	40.64	40.77	49.28	43.02	44.13
Some college	39.30*	15.98	33.25*	25.44*	9.13	33.58*
Bachelor's and up	14.74*	5.92	11.23*	14.09*	3.72	10.67*

Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.

*= $p < 0.05$ level.

Table A3: Low-income Children's Parent Report of Reading, by Race/Ethnicity and Grade Level

Fall Kindergarten	White	Hispanic (ref)	Black
Not at all	0.42*	3.29	0.53*
1–2 times/week	11.60*	27.06	17.66*
3–6 times/week	33.85	37.07	32.37
Every day	54.13*	32.58	49.44*
Spring 1st	White	Hispanic (ref)	Black
Not at all	5.20	4.71	7.75
1–2 times/week	28.80	32.39	32.38
3–6 times/week	36.92	31.48	29.07
Every day	29.07	31.42	30.80
Spring 2nd	White	Hispanic (ref)	Black
Not at all	13.81	10.13	15.05
1–2 times/week	34.67	36.10	35.01
3–6 times/week	30.29	32.39	28.04
Every day	21.24	21.38	21.90

Source: Authors' analysis of low-income children in the ECLS-K: 2011 Kindergarten - Third Grade restricted use data.

*= $p < 0.05$ level.

REFERENCES

1. Allington, R. L., & Cunningham, P. M. (2002). *Schools that work: Where all children read and write*. Boston, MA: Allyn & Bacon.
2. Cabrera, N., Malin, J., Kuhns, C., & West, J. (2017). *The development and early home experiences of young Latino boys*. Bethesda, MD: National Research Center on Hispanic Children & Families. Retrieved from <http://www.hispanicresearchcenter.org/wp-content/uploads/2017/02/Development-and-Early-Home-Env-of-Latino-Boys.pdf>
3. Denton, K., & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade* (No. NCES-2002-125). Washington, DC: National Center for Education Statistics.
4. Reardon, S. F., & Galindo, C. (2007). Patterns of Hispanic students' math skill proficiency in the early elementary grades. *Journal of Latinos and Education*, 6(3), 229-251.
5. Reardon, S. F., & Portilla, X. A. (2016). Recent trends in income, racial, and ethnic school readiness gaps at kindergarten entry. *AERA Open*, 2(3), 1-18.
6. Mulligan, G. M., Hastedt, S., & McCarroll, J. C. (2012). *First-time kindergartners in 2010-11: First findings from the kindergarten rounds of the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K: 2011) (NCES 2012-049)*. Washington, D.C.: National Center for Education Statistics. Retrieved from <https://nces.ed.gov/pubs2012/2012049.pdf>
7. National Center for Education Statistics. (2015). *Digest of education statistics: 2015*. Retrieved from <https://nces.ed.gov/programs/digest/d15/>
8. National Center for Education Statistics. (2015). The nation's report card: 2015 mathematics and reading assessments.
9. Jones, D. E., Greenberg, M., & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health*, 105(11), 2283-2290.
10. Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children. *Science*, 312(5782), 1900-1902.
11. Galindo, C., & Fuller, B. (2010). The social competence of Latino kindergartners and growth in mathematical understanding. *Developmental Psychology*, 46(3), 579-592.
12. Guerrero, A. D., Fuller, B., Chu, L., Kim, A., Franke, T., Bridges, M., et al. (2013). Early growth of Mexican-American children: Lagging in preliteracy skills but not social development. *Maternal and Child Health Journal*, 17(9), 1701-1711.
13. De Feyter, J. J., & Winsler, A. (2009). The early developmental competencies and school readiness of low-income, immigrant children: Influences of generation, race/ethnicity, and national origins. *Early Childhood Research Quarterly*, 24(4), 411-431.
14. Crosnoe, R., Leventhal, T., Wirth, R., Pierce, K. M., & Pianta, R. C. (2010). Family socioeconomic status and consistent environmental stimulation in early childhood. *Child Development*, 81(3), 972-987.
15. McWayne, C., Fantuzzo, J., Cohen, H. L., & Sekino, Y. (2004). A multivariate examination of parent involvement and the social and academic competencies of urban kindergarten children. *Psychology in the Schools*, 41(3), 363-377.
16. Mistry, R. S., Benner, A. D., Biesanz, J. C., Clark, S. L., & Howes, C. (2010). Family and social risk, and parental investments during the early childhood years as predictors of low-income children's school readiness outcomes. *Early Childhood Research Quarterly*, 25(4), 432-449.
17. Price, J. (2010). *The effects of parental time investments: Evidence from natural within-family variation*. Provo, UT: Unpublished Manuscript, Brigham Young University. Retrieved from http://byuresearch.org/home/downloads/price_parental_time_2010.pdf
18. Cabrera, N. J., Malin, J. L., Kuhns, C., & West, J. (2016). The early home environment of Latino boys and their peers: A developmental perspective. *Infant Mental Health Journal*, 38(1), 97-114.
19. Cabrera, N., Fitzgerald, H. E., Bradley, R. H., & Roggman, L. (2014). The ecology of father-child relationships: An expanded model. *Journal of Family Theory and Review*, 6(4), 336-354.

20. Jung, S., Fuller, B., & Galindo, C. (2012). Family functioning and early learning practices in immigrant homes. *Child Development*, 83(5), 1510-1526.
21. Karberg, E., Cabrera, N., Fagan, J., Scott, M. E., & Guzman, L. (2017). *Family stability and instability among low-income Hispanic mothers with young children*. Bethesda, MD: National Research Center on Hispanic Children & Families. Retrieved from <http://www.hispanicresearchcenter.org/wp-content/uploads/2017/02/Family-Stability-and-Instability.pdf>
22. Gresham, F. M., & Elliott, S. N. (2008). *Social skills rating system (SSRS) rating scales*. Bloomington, MD: Pearson Assessments.
23. Downey, D. B., Von Hippel, P. T., & Broh, B. A. (2004). Are schools the great equalizer? Cognitive inequality during the summer months and the school year. *American Sociological Review*, 69(5), 613-635.
24. Nix, R. L., Bierman, K. L., Domitrovich, C. E., & Gill, S. (2013). Promoting children's social-emotional skills in preschool can enhance academic and behavioral functioning in kindergarten: Findings from Head Start REDI. *Early Education & Development*, 24(7), 1000-1019.
25. Bornstein, M., & Bradley, R. (2003). *Socioeconomic status, parenting and child development*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
26. Davis-Kean, P. E. (2005). The influence of parent education and family income on child achievement: the indirect role of parental expectations and the home environment. *Journal of Family Psychology*, 19(2), 294-304.
27. Waldfogel, J., & Washbrook, E. (2011). Early years policy. *Child Development Research*, 2011, 1-12.
28. Cabrera, N. J., Hofferth, S. L., & Chae, S. (2011). Patterns and predictors of father–infant engagement across race/ethnic groups. *Early Childhood Research Quarterly*, 26(3), 365-375.
29. Gilliam, W. S., Maupin, A. N., Reyes, C. R., Accavitti, M., & Shic, F. (2016). *Do early educators' implicit biases regarding sex and race relate to behavior expectations and recommendations of preschool expulsions and suspensions?* New Haven, CT: Yale Child Study Center. Retrieved from http://www.addressingracialmicroaggressions.com/wp-content/uploads/2016/10/Preschool-Implicit-Bias-Policy-Brief_final_9_26_276766_5379.pdf

Acknowledgments

The authors would like to thank Claudia Galindo for her helpful feedback as well as Danielle Crosby, Michael Lopez, Lina Guzman, Catherine Kuhns, Kelsey Garcia, Avery Hennigar, and the Steering Committee of the National Research Center on Hispanic Children & Families for their feedback on earlier drafts of this brief. We would also like to thank staff within the Administration for Children and Families, who provided valuable review and insights. Additionally, we thank Claudia Vega and Tyler McDaniel for their research assistance at multiple stages of this project.

Editor: Brent Franklin

Designer: Catherine Nichols

About the Authors

Christina Padilla, MPP, is a PhD candidate at Georgetown University and a former research fellow for the National Research Center on Hispanic Children & Families. Her research focuses on the role of parental investments and early education experiences on children's school readiness, as well as differences in investments between groups of parents, including parents differing by socioeconomic and nativity status.

Natasha Cabrera, PhD, is co-investigator of the National Research Center on Hispanic Children & Families, co-leading the research area on healthy marriage and responsible fatherhood. She is a professor in the Department of Human Development and Quantitative Methodology, College of Education, at University of Maryland, College Park and a 2015 Russell Sage visiting fellow. Her research focuses on father involvement and children's social development; ethnic and cultural variations in fathering and mothering behaviors; family processes in a social and cultural context; and the mechanisms that link early experiences to children's school readiness.

Jerry West, PhD, is a research affiliate in the Department of Human Development and Quantitative Methodology, College of Education, University of Maryland College Park. He has more than 30 years of experience designing and conducting national studies of children, their families, and their early care and education experiences. His research focuses on factors related to children's school readiness skills, mothers' and fathers' involvement in their children's education, and kindergarten in the United States.

About the Center

The National Research Center on Hispanic Children & Families is a hub of research to help programs and policy better serve low-income Hispanics across three priority areas—poverty reduction and economic self-sufficiency, healthy marriage and responsible fatherhood, and early care and education. The Center was established in 2013 by a five-year cooperative agreement from the Office of Planning, Research, and Evaluation (OPRE) within the Administration for Children and Families (ACF) in the U.S. Department of Health and Human Services (HHS) to Child Trends in partnership with Abt Associates and New York University, University of North Carolina at Greensboro, and University of Maryland, College Park. This publication was made possible by Grant Number 90PH0025 from OPRE. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of OPRE, ACF, or HHS.

Copyright 2017 by the National Research Center on Hispanic Children & Families

We welcome your feedback! Email us at Info@HispanicResearchCenter.org.

HispanicResearchCenter.org

