



Hispanic Children's Participation in Early Care and Education: A Look at Utilization Patterns of Chicago's Publicly Funded Programs

Michael López, Todd Grindal, Wladimir Zanoni, Robert Goerge

April 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. (2015). *America's children: Key national indicators of well-being, 2015, 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

Hispanics, or Latinos,^a represent a large and rapidly growing group within the United States. Latino families have many strengths, but they face many challenges as well. One particular area of concern is the well-documented gap in academic achievement between Latino children and their non-Latino peers. By early elementary school, Hispanic children score substantially lower than do their non-Hispanic white peers on assessments of reading and mathematics.¹ As is the case with low-income children generally,² these early achievement gaps grow over time, setting some Hispanic children on an educational trajectory that may lead to substantial difficulties in later adolescence and into adulthood.

Participating in publicly funded early care and education (ECE) programs can reduce or close those achievement gaps. For example, research suggests that enrollment in a high-quality center-based prekindergarten program can support the short- and long-term development of low-income children.^{3,4} Evidence also suggests that positive impacts of attending preschool may be stronger for Hispanics than for children from other racial/ethnic backgrounds.⁵ However, previous studies have found that Hispanic children consistently enroll in prekindergarten programs at lower rates than do their non-Hispanic peers.⁶ In 2013, 44 percent of all Hispanic 3- and 4-year-olds in the United States were enrolled in part- or full-day preschool programs, compared with 56 percent of non-Hispanic black and 57 percent of white children.⁷

Although multiple studies have provided evidence of Latino children's lower rates of participation in ECE programs, important gaps remain in the research literature. For example, we do not know whether these differences are consistent across all types of publicly funded ECE programs. Nor do we have much information about the degree to which other family- and community-level factors might explain differences in ECE participation, or about how that participation might vary *within* the Latino community.

^a The U.S. Census defines Hispanics or Latinos as those people who classified themselves in one of the specific Spanish, Hispanic, or Latino categories listed on the Census 2000 questionnaire ("Mexican, Mexican Am., Chicano," "Puerto Rican," or "Cuban") or as "Other Spanish/Hispanic/Latino." This brief uses "Hispanic" and/or "Latino" interchangeably throughout to refer to all such groups. Moreover, people who identify their origin as Spanish, Hispanic, or Latino may be of any race. Thus, the Hispanic percentage should not be added to percentages of racial categories (white, black, etc.). http://www.latinostories.com/Latino_Facts_and_Statistics/Census_Stats_Latinos/Definition_of_Hispanic-Origin.html

In this brief, we examine the rates of participation in publicly funded center- and home-based ECE for low-income Hispanic and non-Hispanic 3- and 4-year-olds in Chicago.^b In our analyses of these rates, we drew on a rich and comprehensive set of linked administrative data on a representative sample of children from low-income families.^c These data span the years from their birth to their entry into Chicago Public Schools (CPS) kindergarten programs in 2013-2014. We also examine how ECE participation differs *within* the linguistically and culturally diverse group of low-income Hispanic families in the study sample.

Key findings

Among children from low-income families who were enrolled in CPS kindergarten programs in 2013-2014:

- **The vast majority of Hispanic children participated in publicly funded ECE programs.**^d More than 4 out of 5 low-income Hispanic children in our sample participated in some form of publicly funded center-based or home-based ECE in the 2 years before they entered kindergarten. Approximately 70 percent of low-income Hispanic children participated in some form of center-based ECE program during this period.
- **Hispanic children participated in publicly funded ECE at *slightly lower* rates than did non-Hispanic children. However, the overall differences were small. Moreover, when factors other than Hispanic ethnicity are taken into account, the ECE participation rates for Hispanics were generally *higher* than were those of non-Hispanics.** In the 2 years before entering kindergarten, 83 percent of Hispanic children participated in publicly funded ECE programs, compared with 85 percent of non-Hispanic children. When we controlled for family demographics, prior use of other public assistance services, and neighborhood characteristics in our analyses, we found that Hispanic children had a 2 percentage-point *higher* probability of participation in publicly funded ECE in general, compared with non-Hispanic children, with particularly higher probabilities of participation in two types of center-based programs: Head Start and Preschool for All (PFA).
- **Among Hispanic children, the rate of participation in publicly funded ECE programs varied by family characteristics.** It was *higher* for Hispanic children from households in which Spanish was spoken than for Hispanic children from non-Spanish-speaking households. Similarly,

the rate was *higher* for Hispanic children with one or more parents who were born outside the United States than it was for Hispanic children with parents who were born in this country. In both cases, the higher probability of participation in publicly funded ECE appeared to be driven by substantially higher rates of participation in two types of center-based care: Head Start and PFA.

About this series

This brief is part of a series aimed at better understanding the early care and education experiences of Latino children. This series draws from nationally representative data sets as well as administrative and program data from local communities. This brief uses a comprehensive set of linked administrative data on a representative sample of children from low-income families to describe the rates of participation in ECE programs in Chicago.

Other briefs in this series include:

Crosby, D.A. & Mendez, J.L. (2016). *Hispanic Children's Participation in Early Care and Education: Amount and Timing of Hours by Household Nativity Status, Race/Ethnicity, and Child Age*. Bethesda, MD: The National Center for Research on Hispanic Families & Children.

Crosby, D.A., Mendez, J.L., Guzman, L., & López, M. (2016). *Hispanic Children's Participation in Early Care and Education: Type of Care by Household Nativity Status, Race/Ethnicity, and Child Age*. Bethesda, MD: The National Center for Research on Hispanic Families & Children.

Guzman, L., Hickman, S., Turner, K., & Gennetian L. (2016). *Hispanic Children's Participation in Early Care and Education: Perceptions of Care Arrangements, and Relatives' Availability to Provide Care*. Bethesda, MD: The National Center for Research on Hispanic Families & Children.

These publications can be accessed on the Center's website at: <http://www.hispanicresearchcenter.org/nrc/resources/publications/>.

The Chicago context

Hispanic children represent a large proportion of the city's school-age population. Forty-five percent of children entering CPS kindergarten in 2013 were Hispanic, compared with 36 percent who were non-Hispanic black, 11 percent who were non-Hispanic white, and 6 percent who identified as other race or from whom no information on race/ethnicity was provided. Among the low-income children entering CPS kindergarten examined in this study, Hispanic children represented an even larger proportion: 53 percent.

Low-income children and families in Chicago have a number of options for publicly funded ECE in the 2 years preceding

^b For this study, we define center-based care broadly to include both school-based programs and those center-based programs operated by community-based organizations.

^c For this study, low-income status is defined by whether the child was enrolled in the Medicaid program at birth.

^d In this study, ECE participation was measured in the 2 years prior to kindergarten entry, when children were between 3 and 4 years old. The ECE programs examined included: Head Start, Preschool for All, other Chicago Public School preschool programs, and Child Care Assistance Program (the Illinois Child Care and Development Fund program) subsidized childcare programs (see "The Chicago Context" section for additional details).

kindergarten.^e Although all of these programs serve high proportions of low-income children, each has unique characteristics and eligibility requirements, as summarized below (see “Appendix A” for additional details):

- **Head Start:** This federally funded preschool program for low-income children between 3 and 5 years old promotes school readiness. The majority of participating families must have incomes within 100 percent of the federal poverty level (FPL; i.e., \$19,530 for a single mother and two children in 2013).^f Chicago Head Start programs are operated by the Department of Family and Support Services, either directly or through delegate agencies, including the Chicago Public Schools and a range of community-based organizations. They offer either a half- or a full-day program and incorporate a comprehensive range of family services, such as parent engagement, health care, and social services.
- **Preschool for All (PFA):** This community-based preschool program serves 3- to 5-year-olds, with priority given to those who are identified as at risk of academic failure based on weighted eligibility criteria (e.g., low-income, from non-English-speaking households). Although originally intended as a universal access program (i.e., it had no income-eligibility criteria), PFA in Chicago is administered by CPS and includes low-income status (185 percent FPL) as one of the school system’s prioritized criteria, with a sliding fee scale for families with incomes up to 400 percent of FPL. PFA programs operate in both public schools and community-based organizations and must provide enrolled children with a minimum of 2.5 hours of instruction per school day and provide families with parent coordination/education services.
- **Other CPS prekindergarten programs:** These include **Chicago Parent-Child Centers (CPCs)** and center-based programs (in addition to Head Start and PFA described above) that provide preschool services to children in CPS. Parents of children participating in CPCs are encouraged to volunteer in their children’s class at least one half-day a week. CPC parents receive comprehensive support services from a collaborative team consisting of a head teacher, parent resource teacher, and school community representative.
- **Child Care Assistance Program (CCAP):** This is Illinois’s version of the Administration for Children and Families’ Child Care and Development Fund subsidy program, which provides low-income working families with money for child care, using both state and federal funds. Eligible parents pay for services on a sliding scale based on family size, income, and number of children in care. During the period in which families’ participation was determined for this study, families

within 185 percent of the FPL were eligible. However, new requirements established in 2014 in Illinois limit eligibility to families within 162 percent of the FPL and other high-priority families and individuals (e.g., recipients of Temporary Assistance for Needy Families, teen parents, and families of children with special needs). Unlike the case with other publicly funded ECE programs examined in this study, unauthorized immigrant parents are not eligible to receive federally funded CCAP services for their children, but are eligible to receive state-funded CCAP services.



Research questions

In this brief, we set out to provide new insights into the ECE participation rates of Chicago’s low-income Hispanic children by addressing the following research questions:

1. What percentage of low-income Hispanic kindergartners who were enrolled in CPS in 2013-2014 had participated in publicly funded ECE in the 2 years before kindergarten entry, and what types of publicly funded ECE did they participate in?
2. Did rates of ECE participation differ between low-income Hispanic and low-income non-Hispanic children?
3. Among low-income Hispanic children, did rates of participation in publicly funded ECE differ by home language, parent nativity, or community characteristics?

Findings

The majority of low-income Hispanic 3- and 4-year-olds participated in ECE programs.

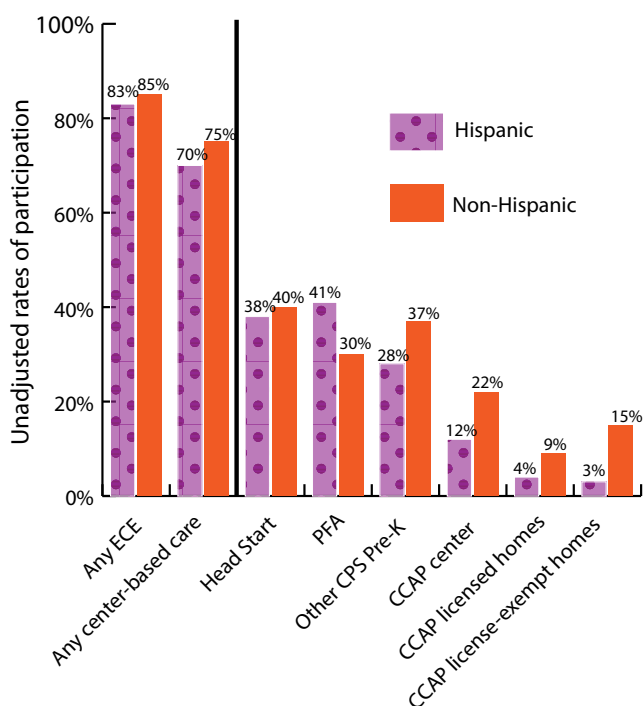
Eighty-three percent of Chicago’s low-income Hispanic children participated in some form of publicly funded center-based or home-based ECE in the 2 years prior to kindergarten entry. Rates of participation in center-based programs, specifically, were high. Approximately 70 percent of Hispanic children participated in center-based ECE programs, including Head Start, PFA, and other CPS preschool or CCAP-funded early care and education. These unadjusted rates of ECE participation for Hispanic families were slightly *lower* than were the rates for low-income, non-Hispanic families.

^e The ECE options described in this brief are those that were available in Chicago during the two year period of 2011 to 2013.

^f Head Start primarily serves children from families with incomes below the 100 percent of the federal poverty line (FPL) and/or who are homeless, with allowance to serve 10 percent of participants who are not from families with incomes below 100 percent of the FPL, and up to an additional 35 percent of participants whose families have incomes below 130 percent of the FPL (42 USC 9801 et seq.).

The overall rates of ECE participation for Hispanics in our study sample were *higher* than was reported in previous studies; likewise, the magnitude of the Hispanic/non-Hispanic difference in ECE participation (2 percentage points) was much smaller than has been reported in previous studies.^{8,9} As shown in Figure 1, this *lower* rate of ECE participation among Hispanic children was evident across nearly all center-based and home-based ECE programs examined in this study. Differences between Hispanic and non-Hispanic children were particularly large in other CPS pre-K programs,⁹ and all forms of CCAP-subsidized care. One exception to this pattern was that Hispanic children participated in the school system's PFA programs at *higher* rates (41 percent) than did non-Hispanic children (30 percent).

Figure 1. A large majority of low-income Hispanic children in Chicago participated in at least one publicly funded ECE program.



Note: The categories to the left of the solid black line represent aggregates of the care types listed on the right. Specifically, *Any ECE* indicates whether the child participated in one or more of the care types listed to the right side of the solid black line. *Any center-based care* indicates whether the child participated in one or more of the following: *Head Start*, *PFA*, *Other CPS Pre-K* or *CCAP center*.

Much of the difference in ECE participation between Hispanic and non-Hispanic children was attributable to factors other than Hispanic ethnicity.

To better understand how Hispanic ethnicity is associated with the ECE participation rates, we conducted additional analyses that took into account a range of relevant family demographics, prior use of other public assistance services,

and community characteristics.^h Controlling for these other variables allowed us to account for factors that prior research indicates are associated with use of ECE. These adjusted comparisons provide a more accurate picture of the ways Hispanic ethnicity, specifically, may be associated with use of publicly funded ECE programs.

When we took these other factors under consideration, we found that low-income Hispanic children had an overall *higher* probability of participating in some forms of publicly funded ECE, compared with children in low-income, non-Hispanic families. Low-income Hispanic children had a significantly *higher* probability (4 percentage points) than did low-income non-Hispanic children of participating in at least one of the publicly funded ECE programs examined in this study (both center-based and non-center-based). Similarly, low-income Hispanic children had a significantly *higher* probability (2 percentage points) than did low-income non-Hispanic children of participating in at least one of the publicly funded center-based care programs.

Looking at the specific programs examined, we found that Hispanic/non-Hispanic differences in the probability of ECE participation were *higher* for Head Start programs (5 percentage points) and PFA programs (8 percentage points). Hispanic ethnicity continued to be associated with a *lower* probability of participation in other forms of CPS-based preschool (16 percentage points) and most forms of CCAP-subsidized care, including center-based CCAP-subsidized care (4 percentage points), even when we accounted for family demographics, prior use of public assistance services, and community characteristics.

Low-income Hispanic children had a *higher* probability of participating in some form of publicly funded ECE than did comparable non-Hispanic white children, but they had a *lower* probability of participating in such programs than did comparable non-Hispanic black children.

Looking within the non-Hispanic sample, after controlling for factors related to ECE participation, we found that the probability that a low-income Hispanic child would participate in a publicly funded ECE program was *higher* (17 percentage points) than it was for a low-income non-Hispanic white child, but *lower* (4 percentage points) than it was for a low-income non-Hispanic black child.

Differences in the probability of participation varied from one type of ECE program to another. When compared with non-Hispanic white children, Hispanic children had a *higher* probability of participating in Head Start (48 percentage points) and of participating in PFA (9 percentage points). When compared with non-Hispanic black children, Hispanic children similarly had a *higher* probability (5 percentage points) of participating in PFA, but they had a *lower* probability (8 percentage points) of participating in Head Start.

^h See "Appendix B" for a full list of the variables used in the analyses.

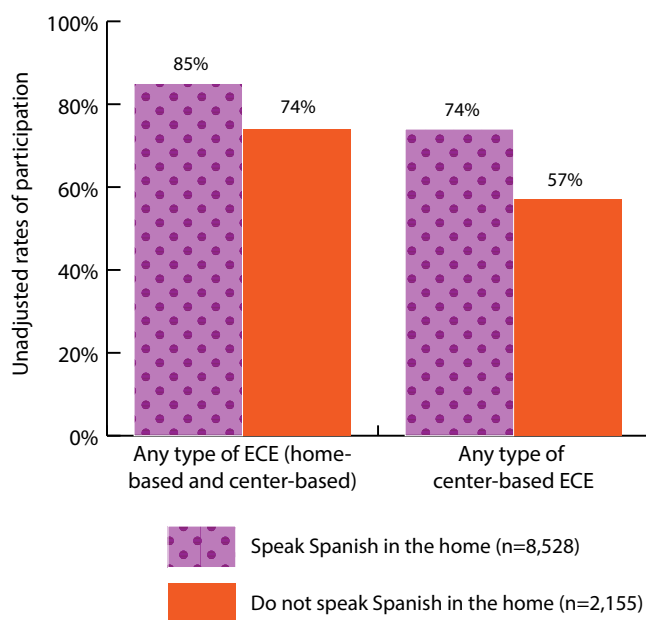
ⁱ All reported differences in the probability of enrollment are significant at the $p < .05$ level.

⁹ See "The Chicago context" section for a description of other CPS pre-K programs.

ECE participation varied *within* the group of Hispanic families we studied.

Looking within the diverse group of Hispanic families, we found that Latino children who lived in Spanish-speaking households participated in publicly funded ECE at *higher* rates (85 percent) than did Latino children who lived in non-Spanish-speaking households (74 percent; see Figure 2). Differences in the use of publicly funded center-based care, specifically, were in the same direction, but were even larger (17 percentage points).

Figure 2. Latino children from Spanish-speaking households participated in ECE at higher rates than did Latino children from non-Spanish-speaking households.

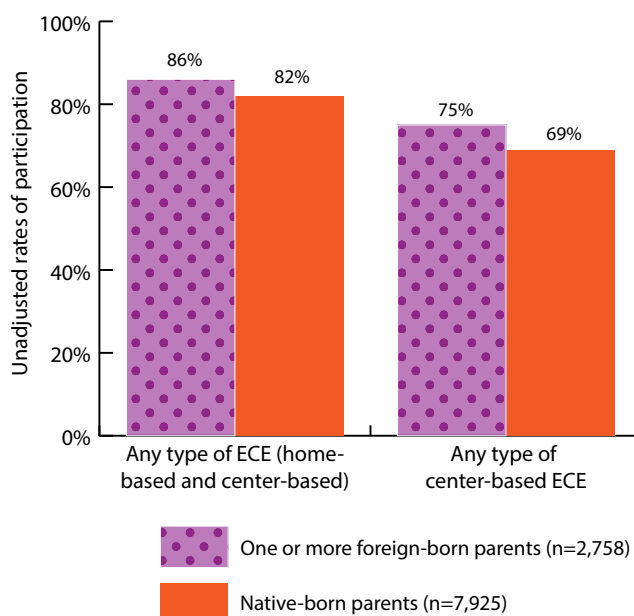


These differences in ECE participation remained when we controlled for family demographics, prior use of other public assistance services, and community characteristics. The probability that Latino children from Spanish-speaking households would participate in some form of publicly funded ECE was *higher* (11 percentage points) than it was for Latino children from non-Spanish speaking households. These differences were driven primarily by higher probabilities of participation in Head Start (18 percentage points) and in PFA (19 percentage points) for Latino children from Spanish-speaking households. In contrast, Latino children from Spanish-speaking households had a *lower* probability of participation in CCAP-subsidized center-based care (4 percentage points) and license-exempt CCAP-subsidized home child care (3 percentage points) than did Latino children from non-Spanish-speaking households. These two groups of Latino children participated in other CPS center-based programs at similar rates.

Latino children with one or more parents who were born

outside of the United States participated in publicly funded ECE at *higher* rates (86 percent) than did Latino children with native-born parents (82 percent), as seen in Figure 3. Similarly, among Latino children with one or more parents who were born outside of the United States, a higher percentage (75 percent) participated in some form of publicly funded *center-based* care than was the case for children with native-born parents (69 percent).

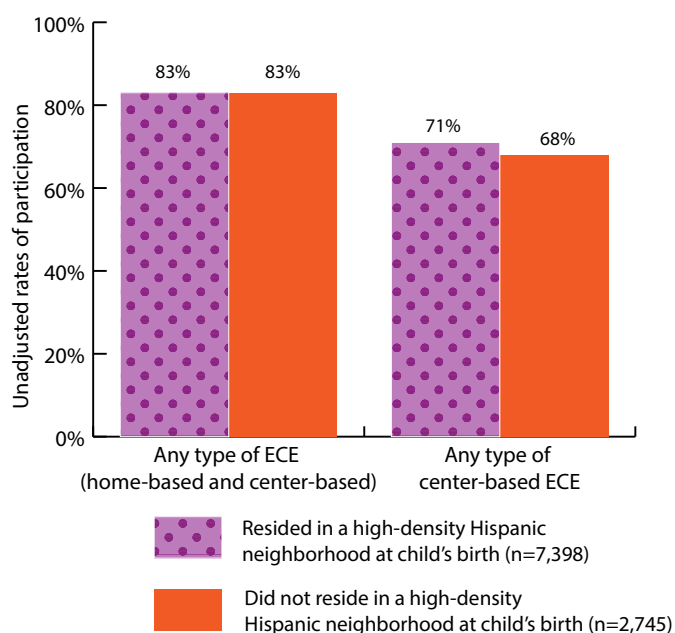
Figure 3. Hispanic children with one or more foreign-born parents participated in ECE at higher rates than did Hispanic children with native-born parents.



These differences in participation rates among Latino children according to the nativity of their parents still held up in analyses that included other predictors of ECE participation. In these adjusted analyses, Latino children with a foreign-born parent had a higher probability (3 percentage points) of participating in some form of publicly funded ECE, and in each individual type of publicly funded ECE, than did Latino children with native-born parents. Latino children with one or more foreign-born parents had higher probabilities of participating in Head Start (6 percentage points), PFA (5 percentage points), and CCAP-subsidized licensed child care households (5 percentage points) than were Latino children with native-born parents.

Both Hispanic children who lived in a high-density^j Hispanic neighborhood at birth and those who did not participated in publicly funded ECE at similar rates (83 percent), as shown in Figure 4. When it came to center-based programs exclusively, we found that Hispanic children from high-density Hispanic neighborhoods participated in these programs at slightly higher rates than did their counterparts from other neighborhoods (71 percent, compared with 68 percent).

Figure 4. Hispanic families who lived in high-density Hispanic neighborhoods used ECE at rates similar to those of Hispanic families from other communities.



Associations between living in a high-density Hispanic neighborhood and enrolling one's children in ECE and center-based programs were consistent with the associations we found when we controlled for other relevant family, service use, and community characteristics. When controlling for these characteristics, we found that compared with Hispanic children who did not live in a high-density Hispanic neighborhood, those who did live in such neighborhoods had a probability of participating in Head Start that was 3 percentage points *higher*; of participating in CCAP-subsidized licensed home care that was 4 percentage points *higher*; and of participating in CCAP-funded center care that was 3 percentage points *lower*.

Study limitations

This brief has focused on the participation rates of young Hispanic children in early care and education programs in a major U.S. city. Our hope is that these findings will have relevance beyond one city. At the same time, we would be remiss if we failed to acknowledge several important limitations to the findings of the study on which this brief is based.

^j For this study, high-density is defined as a neighborhood in which more than 50 percent of residents identified as Hispanic.

First, our sample may not include all kindergartners in Chicago Public Schools who were born into low-income families. We used Illinois records of the participation in Medicaid at the time of a child's birth as a proxy for the household's low-income status. Prior studies have documented high rates of Medicaid enrollment for children of immigrant (92 percent) and non-immigrant (94 percent) parents in Illinois, which supports the use of this approach to identify low-income families.¹⁰ However, the state's low-income children whose mothers did not participate in Medicaid would not be included in the analyses. Similarly, children who were born into low-income families outside of Illinois would also be excluded from the analyses. Second, our data do not include information on participation in all forms of ECE available to low-income 3- and 4-year-olds in Chicago. We did not have data on approximately 9 percent of Head Start slots in Chicago.^k We also did not examine participation in other forms of ECE available to low-income families, such as low-cost care provided by religious schools or by private organizations.

Third, it is important to note that Chicago represents a unique context with a specific mix of programs and family demographics. CPS is the third-largest school district in the country, and the great majority (81 percent) of CPS kindergartners are from low-income families. Prior studies also have estimated that approximately 90 percent of young Hispanic children in Chicago are enrolled in public schools,¹¹ in contrast to some urban areas where some low-income Hispanic parents might choose other educational options for their children, such as parochial schools. Because the population of children analyzed in this study consists of a subsample of the CPS group of kindergartners in 2013, the results may not be applicable to other large multiethnic urban centers.

Finally, all of the results described in this study represent associations and should not be interpreted as confirmation of cause-and-effect relationships. Although we used a uniquely rich data set, and included key control variables, it is possible that some unobserved characteristics could be responsible—or partly responsible—for the associations reported in this study.

Discussion

Despite the limitations mentioned above, the uniquely rich integrated data set that we used in this study enabled us to provide new insight into the ECE participation of low-income Hispanic children in Chicago, as evidenced by the following highlights of our work.

A large majority of all low-income children in Chicago, including Hispanic children, participated in publicly funded ECE programs.

^k We were unable to obtain enrollment information that we could merge for children enrolled in Head Start programs run by Ounce of Prevention and by Metropolitan Family Services.

Many previous studies have found lower rates of participation in ECE programs among Latino families.^{8,6} Although we also found that low-income Hispanic children participated in ECE at slightly lower rates than did low-income non-Hispanic children, the overall rate (83 percent) of ECE participation among low-income Hispanic families reflects a relatively higher rate of participation than has been documented in other studies.⁸ While Chicago may be unique, the findings also indicate less of a disparity in ECE participation between children in Latino and non-Latino families than typically has been reported in prior studies conducted nationally or in other areas of the country.

After controlling for family demographics, prior use of other public assistance services, and community characteristics, it became apparent that Hispanic children were more likely than non-Hispanic children to participate in ECE overall, and to participate in Head Start and Preschool for All specifically.

The work we did for this brief underscores the complexity of the relationship between Hispanic ethnicity and participation in publicly funded ECE. Although we saw that children from Hispanic families participated in most forms of publicly funded ECE at slightly lower rates than did children from non-Hispanic families, much of the difference in participation rate can be explained by factors other than Hispanic ethnicity. The perhaps surprising message from this observation is that Hispanic ethnicity alone may actually be linked to higher rates of ECE participation.

These nuanced findings run counter to much of the prior research, which generally has suggested that Latino families are less likely to have their children participate in ECE.^{7,8} These findings emphasize the importance of accounting for the many factors that could contribute to observed differences in ECE participation across racial/ethnic groups.

The probability of ECE participation varied within the Hispanic population that was the focus of our study. Children who had at least one foreign-born parent and those from Spanish-speaking households had a higher probability of participation in ECE overall and in Head Start and Preschool for All, in particular.

These findings also run counter to prior research, which has typically found barriers to ECE participation among families who speak Spanish rather than English in the home and those where at least one parent is foreign-born.^{14,15}

The study cannot determine why the probability of participation in ECE programs, particularly Head Start and PFA, is higher for Latino families overall than it is for non-Latino families, as well as for certain subgroups of Latino children.

It is possible, however, that the policy context and the outreach, recruitment, and service delivery strategies within the publicly funded ECE system in Chicago may be generally more responsive than those of other locales to the needs of the large and growing population of culturally and linguistically diverse families.

For example:

- Recent Illinois legislation now requires publicly funded preschools to provide transitional bilingual programs within any school with 20 or more English language learners who speak the same native language. Teachers in these programs are also required to have the necessary bilingual certification.¹ Although the full implementation of this legislative mandate has been delayed, the directive reflects an overall policy context focused on ensuring that services are accessible to families whose first language is not English. This context may be contributing to the higher probability that Hispanic children from Spanish-speaking households will participate in publicly funded ECE programs.
- Similarly, efforts such as the Chicago New Americans Plan--launched by the mayor in July 2011--have prioritized making Chicago the most immigrant-friendly city in the country and led to numerous efforts to improve the responsiveness of policy and programs as they relate to immigrant families.^m These efforts may contribute to the observed high probability of participation in publicly funded ECE among children with one or more foreign-born parents.
- The PFA program may be particularly responsive to serving Hispanic families because it is a relatively new ECE option that was specifically designed to serve children who have been identified as being at risk of academic failure. PFA was envisioned as a universal-access ECE program, although CPS prioritizes children at or below 185 percent of the free- and reduced-price lunch income level. The end result is that the program can serve a higher proportion of low-income families. Children from families where English is not the primary language spoken in the home are also a prioritized group. The combined focus on low-income families and children from non-English-speaking households may explain the observed higher participation rate of Hispanic families in general, as well as of some of the Hispanic subgroups this study examined.

¹ 23 Illinois Administrative Code Part 228 Transitional Bilingual Education.

^m <https://www.cityofchicago.org/content/dam/city/depts/mayor/Office%20of%20New%20Americans/NewAmericanBookletfullplan.pdf>

The differences in ECE participation rates across ECE program types may also be influenced by differences in program eligibility criteria, service areas, outreach strategies, enrollment requirements, and other related factors.

For example:

- Head Start has the most stringent income eligibility requirement (income less than 100 percent of the FPL for most families, with allowance for a small percentage of families with slightly higher incomes). Thus, despite the fact that the study sample overall is low-income, some of the differences in participation rates may reflect subtle differences within the low-income population. Similarly, some evidence suggests that the Chicago ECE system may attempt to steer some of the low-income children who meet the more stringent eligibility criteria into Head Start specifically, which may be a factor in the choices families and/or programs make about the care children receive.ⁿ
- Some ECE programs, such as the CCAP subsidy program, have additional work, education, training, and/or residency requirements, as well as required enrollment paperwork, which could serve as potential barriers (either real or perceived) for some Latino families, particularly recent immigrants, undocumented immigrants, people with limited English proficiency, and those with poor reading skills.

Finally, the findings presented in this brief give credence to the value of using a rich and comprehensive set of linked data to investigate issues of societal import. In this case, that issue is the participation of low-income Hispanic children in early childhood care and education programs as a way to pave the way for their future academic achievement.

Most communities have a range of available ECE programs serving low-income families and their children. As mentioned previously, the different ECE program options also may vary in their eligibility criteria, service areas, outreach strategies, and other particulars. In addition, systems-level coordination in the process of identifying, recruiting, and serving eligible families across the different programs may or may not be in place. All of these factors may influence which children and families are served by which program. Our study underscores the importance of including data from the most comprehensive universe of ECE providers when examining participation rates, both overall and for subgroups of special interest. Using a rich and comprehensive integrated data set for this study allowed us to uncover unique information to help us better understand the ECE participation rates of low-income Hispanic children.

ⁿ Information was obtained from A. Colaner, personal communication, May 12, 2016.



About the data sources for this brief

Integrated data system

The findings reported in this brief draw from analyses of a uniquely rich integrated data system^a that brings together multiple sources of administrative records about children and families served in Chicago, Illinois. These data include household-level records from Medicaid, the Temporary Assistance for Needy Families program, and the Supplemental Nutrition Assistance Program, still often known as the food stamp program; CCAP grant records of subsidy use from the Illinois Department of Human Services and individual-level enrollment records from Chicago Head Start programs and preschool programs operated through CPS. The data set also includes information from the American Community Survey on the characteristics of the neighborhoods (census tracts) in which the families lived.

We merged^b these individual-and household-level records into a single analytic data set, using probabilistic record linkage methods, via the Illinois Longitudinal Public Assistance Research Database.^{c-e} These integrated data not only allowed us to determine children's long-term participation in a range of publicly funded ECE programs, but also provided a broader array of household and demographic information than is typically available within a single administrative data set. For example, we identified subgroups of Hispanic children and their families using indicators of home language collected by the CPS and Medicaid data showing whether one or more of the child's parents were born outside the United States. We also used a measure of the density of Hispanic families in a child's birth neighborhood, which we generated by linking home address information from the Medicaid data with block group-level indicators from the American Community Survey.

^a Integrated data systems link individual data across multiple, independent agency data systems, permitting researchers to examine individual-level cross-agency information over time (Limlingan et al., 2015).

^b Merging and analysis of data sets were conducted by researchers at Chapin Hall under the direction of researchers from the National Research Center on Hispanic Children & Families.

^c Goerge, R & Lee, B. (2002). Matching and Cleaning Administrative Data. Studies of Welfare Populations: Data Collection and Research Issues. National Academy of Sciences.

^d Limlingan, M. C., Grindal, T., López, M., Blocklin, M., & Bumgarner, E. (2015). Integrated Data Systems: An Emerging Tool to Support Services for Low-Income Hispanic Families with Young Children. <http://abtassociates.com/AbtAssociates/files/d9/d9c6c9ce-af54-41e2-92d4-4bd4dc1aa133.pdf>

^e A detailed description of the approach used to match records is available at Goerge and Lee (2002).

Information on children's participation in ECE (during the 2 years prior to kindergarten) came from three main sources:

- **Chicago Public Schools**—for information on participation in Head Start programs operated by CPS, PFA, and other CPS-supported ECE programs.
- **Child Outcome, Planning & Administration** data system in the Chicago Department of Family and Support Services—for information on Head Start programs not operated through CPS.
- **Illinois Child Care Tracking System** (which identifies payment records made to providers on behalf of subsidized children)—for information on families' use of CCAP subsidies.

Combined, these three sources represent approximately 95 percent of the publicly funded center- and home-based ECE slots in the city of Chicago.

Sample

The sample examined in this study represents a subset of the children who enrolled in CPS kindergarten in the fall of 2013. We limited the analytic sample to include only those CPS kindergartners who were enrolled in Medicaid at the time of their birth (of which there were 20,325). We used Medicaid participation as a marker of whether children were born into a low-income household.^f Focusing on the ECE participation of those children who were born into low-income households aligns our analytic sample with income eligibility criteria and the target populations of most of the center- and home-based ECE programs we examined.

Appendix B provides a detailed list of the variables used in this study, as well as their sources. Appendix C details our methods for analyzing the data.

^f To be eligible for Medicaid at the time of the child's birth, families needed to have low income and reside in Illinois, regardless of their U.S. immigration status. For the purposes of Medicaid eligibility in 2008, *low income* for families with infants (zero to 1) meant 200 percent of the federal poverty level (FPL), and 133 percent of FPL for families with older children.

References

1. Hemphill, F. C., & Vanneman, A. (2011). Achievement Gaps: How Hispanic and White Students in Public Schools Perform in Mathematics and Reading on the National Assessment of Educational Progress. Statistical Analysis Report. NCES 2011-459. National Center for Education Statistics.
2. Reardon, S. F. (2013). The widening income achievement gap. *Educational Leadership*, 70(8), 10-16.
3. Deming, D. (2009). Early childhood intervention and life-cycle skill development: Evidence from Head Start. *American Economic Journal: Applied Economics*, 111-134.
4. Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*, 84(6), 2112-2130.
5. Bitler, M. P., Hoynes, H. W., & Domina, T. (2014). Experimental evidence on distributional effects of Head Start (No. w20434). National Bureau of Economic Research.
6. Magnuson, K., & Waldfogel, J. (2016). Trends in Income-Related Gaps in Enrollment in Early Childhood Education. *AERA Open*, 2(2), 2332858416648933.
7. Child Trends Databank. (2015). Preschool and prekindergarten. From <http://www.childtrends.org/?indicators=preschool-and-prekindergarten>
8. Magnuson, K. A., & Waldfogel, J. (2005). Early childhood care and education: Effects on ethnic and racial gaps in school readiness. *The future of children*, 15(1), 169-196.
9. Schmit, S., & Walker, C. (2016). Disparate Access. Center for Law and Social Policy, Inc. Retrieved from <http://www.clasp.org/resources-and-publications/publication-1/Disparate-Access.pdf>.
10. Seiber, E. E. (2013). Which States Enroll Their Medicaid-Eligible, Citizen Children with Immigrant Parents?. *Health services research*, 48(2pt1), 519-538.
11. Sander, W. (2006). Private Schools and School Enrollment in Chicago. Chicago Fed Letter. Number 231. Federal Reserve Bank of Chicago.
12. Liang, X., Fuller, B., & Singer, J. D. (2000). Ethnic differences in child care selection: The influence of family structure, parental practices, and home language. *Early Childhood Research Quarterly*, 15(3), 357-384.
13. Coley, R. L., Votruba-Drzal, E., Collins, M. A., & Miller, P. (2014). Selection into early education and care settings: Differences by developmental period. *Early Childhood Research Quarterly*, 29(3), 319-332.

Appendix A: Eligibility Requirements for Programs Examined in This Study, 2008–2013

Program	Income Threshold (year)	Work Requirement	Residency Requirement	Maximum Duration of Enrollment	Age or Household Composition
Early care and education types					
Head Start	100% of federal poverty level (FPL), with up to 35% of children served at 130% of FPL (2011–2013)	n/a	Resident of Illinois, regardless of U.S. immigration status	2 years	Children ages 3–5
Preschool for All (PFA)	Children identified as being “at-risk” based on income and other familial risk factors (2011–2013)	n/a	Resident of Illinois, regardless of U.S. immigration status	2 years	Children ages 3–5
Other Chicago Public Schools (CPS) preschool (Child Parent centers, other school programs)	Children identified as being “at-risk” based on income and other familial risk factors (2011–2013)	n/a	Resident of Illinois, regardless of U.S. immigration status	2 years	Children ages 3–5
Child Care Assistance Program (CCAP)	185% of FPL (2011–2013)	Working families, TANF recipients, families with special needs children, and teens enrolled full-time in high school or GED classes	Resident of Illinois, regardless of U.S. immigration status	0–12 years	Children under age 13; children under age 19 if court supervised or disabled
Other					
Medicaid (All Kids Illinois)	200% of FPL for infants ages 0–1; 133% of FPL for children ages 1–18 (2008–2009)	n/a	Resident of Illinois, regardless of U.S. immigration status	0–18 years	Children age 18 or younger
Temporary Assistance for Needy Families (TANF)	Maximum monthly earnings for single parent with two children: \$794 or 49.9% of FPL; asset limit of \$3,000 excluding the value of one vehicle per household (2012)	No work requirement if caring for a child <1 years old; 20 hours per week if caring for children 1–6 years old; 30 hours per week if caring for children >6 years old	U.S. national, citizen, legal alien, or permanent resident with five years of U.S. residency	5-year time limit	Pregnant or responsible for a child under age 19
Supplemental Nutrition Assistance Program (SNAP)	130% of FPL; no asset limit (2010)	n/a	U.S. citizen, qualified immigrant status with five years of U.S. residency; refugees and asylees Parents who do not qualify for SNAP can apply for children or other qualifying household members	No limitation if income eligible	All households

Note: FPL is federal poverty level, which was \$19,530 for a single mother and two children in 2013.

Appendix B: Study Variables and Original Data Sources

Variable	Unit of Analysis	Variable Values	Time of Child/ Household at Measurement	Data Source(s)
Early care and education participation				
Participation in Head Start	Child	Binary equal to 1 if the child participated in Head Start	Two years prior to kindergarten entry	Chicago Public Schools / COPA (Child Outcome Planning and Assessment system)
Participation in Preschool for All	Child	Binary equal to 1 if the child participated in Preschool for All	Two years prior to kindergarten entry	Chicago Public Schools
Participation in other Chicago Public Schools early care and education programs	Child	Binary equal to 1 if the child participated in other Chicago Public Schools early care and education program	Two years prior to kindergarten entry	Chicago Public Schools
Participation in center-based care using Child Care Assistance Program (CCAP) subsidies	Child	Binary equal to 1 if the child participated in center-based care using CCAP subsidy	Two years prior to kindergarten entry	CCAP administrative records
Participation in licensed home child care using CCAP subsidies	Child	Binary equal to 1 if the child participated in licensed home child care using CCAP subsidy	Two years prior to kindergarten entry	CCAP administrative records
Participation in license-exempt home child care using CCAP subsidies	Child	Binary equal to 1 if the child participated in license-exempt home child care using CCAP subsidy	Two years prior to kindergarten entry	CCAP administrative records
Any ECE	Child	Binary coded as 1 if the child participated in any of the focal care types	Two years prior to kindergarten entry	Chicago Public Schools / COPA / CCAP administrative records
Any center-based care	Child	Binary coded as 1 if the child participated in Head Start, PFA, other CPS-based preschool, or center-based care using CCAP subsidy	Two years prior to kindergarten entry	Chicago Public Schools / COPA / CCAP administrative records
Household demographics				
Child is Hispanic	Child	Binary coded as 1 if the child is Hispanic, 0 otherwise	Birth and kindergarten entry	Chicago Public Schools / Medicaid
Child's race/ethnicity	Child	Categorical: Hispanic, White, Black, other	Birth and kindergarten entry	Chicago Public Schools / Medicaid
Child has a foreign-born parent	Household	Binary equal to 1 if one or more of the child's parents were born outside the United States	Birth	Medicaid
Spanish is spoken in the home	Household	Binary equal to 1 if the child resided in household in which Spanish was spoken	Kindergarten entry	Chicago Public Schools
Child's sex	Child	Binary coded as 1 if the child is male	Kindergarten entry	Chicago Public Schools
Household demographics				
Child is age 61-66 months at kindergarten entry	Child	Binary coded as 1 if the child was 61-66 months old at kindergarten entry	Kindergarten entry	Chicago Public Schools

Appendix B cont.

Variable	Unit of Analysis	Variable Values	Time of Child/ Household at Measurement	Data Source(s)
Household demographics				
Number of adult males in household	Household	Continuous variable indicating the number of adult males in the household	Birth	Medicaid
Number of adult females in household	Household	Continuous variable indicating the number of adult females in the household	Birth	Medicaid
Community characteristics				
Family resides in a high-density Hispanic community	Block group	Binary equal to 1 if the family resided in a community in which 50 percent or more of households identified as Hispanic	Birth	American Community Survey 5-Year Estimates
Other public service use				
Participates in Supplemental Nutrition Assistance Program (SNAP) (quarterly)	Household	Series of 11 binary variables coded as 1 if the household participated in SNAP during the focal quarter, 0 otherwise	Quarterly data collected during the period between birth and two years prior to kindergarten entry	SNAP
Participates in Temporary Assistance for Needy Families (TANF) (quarterly)	Household	Series of 11 binary variables coded as 1 if the household participated in TANF during the focal quarter, 0 otherwise	Quarterly data collected during the period between birth and two years prior to kindergarten entry	TANF
Participates in Medicaid (at birth)	Household	Series of 11 binary variables coded as 1 if the household participated in Medicaid during the focal quarter, 0 otherwise	Birth	Medicaid
Ever participated in SNAP	Household	Binary variable coded as 1 if the household participated in SNAP during at least one quarter	Between birth and two years prior to kindergarten entry	SNAP
Ever participated in TANF	Household	Binary variable coded as 1 if the household participated in TANF during at least one quarter	Between birth and two years prior to kindergarten entry	TANF

CCAP = Child Care Assistance Program

COPA = Child Outcome Planning and Assessment system

SNAP = Supplemental Nutrition Assistance Program

TANF = Temporary Assistance for Needy Families

Appendix C: Data Analytic Methods

We conducted three types of data analyses in this brief. First, we examined the percentages of children in our study sample who participated in different types of publicly funded early care and education programs. We tabulated these percentages for Hispanic and non-Hispanic children, and we also looked at percentages within the Hispanic group, examining differences based on whether Spanish was spoken in the home, whether the child had one or more foreign-born parents, and whether the child lived in a neighborhood with a high density of Hispanics when the child was born.

Second, we conducted a series of ordinary least squares (OLS) regression models. In these models, we examined the probability that children would participate in a specific type of care over not participating in any type of care as the default option, controlling for a range of relevant family demographics, prior use of other public assistance services, and community characteristics. These analyses allowed us to estimate the differential probabilities for Hispanic and non-Hispanic children, accounting for other factors linked to ECE participation. In these analyses, we looked at the non-Hispanic group as a whole and also separated the group into non-Hispanic, black and non-Hispanic, white. As in the first set of analyses, in these OLS models, we also examined differences within the Hispanic population.

We examined participation in five types of publicly funded ECE programs: Head Start, Preschool for All (PFA), other CPS early care and education programs, Child Care Assistance Program (CCAP)-subsidized care provided in a center-based preschool program, CCAP subsidized care provided in a licensed child care home, and CCAP subsidized care provided in a license-exempt child care home. We also examined whether children participated in any of these forms of publicly funded ECE, as well as whether they participated in any type of center-based ECE.

For each of these analyses, the focal ECE type of care was coded as 1 if a child participated in the type of care studied, and 0 if he/she did not participate in that type of ECE. For the analyses looking within the Hispanic population, we included dummy indicators for subgroup membership (e.g., Spanish spoken in the home) and interacted the Hispanic dummy variable and subgroup membership variables. When the interaction was significant, we tested whether or not the relationship between the subgroup variable and the outcome was significant for the Hispanic group.

Each of these analyses provides descriptive information on the associations between Hispanic ethnicity and participation in the various types of available publicly funded ECE options. It is important to note that we cannot rule out that the differences between regression analyses with and without covariates are due to endogenous covariates, as covariates in those models are not all randomly assigned to families, and many are choices that may be confounded with Hispanic ethnicity.

Acknowledgments

The authors would like to thank staff from the Administration for Children and Families and our external reviewers Barbara Bowman and Dr. Anna Colaner for their valuable review and feedback of this brief. We would like to thank members of the steering committee of the National Research Center on Hispanic Children & Families for their feedback on earlier drafts of this brief. Additionally, we thank Renee Lamerou for assistance with background research, as well as Harriet Scarupa and August Aldebot-Green for their editing assistance.

We would also like to thank those organizations that provided data for this project, including Chicago Public Schools, the Chicago Department of Family and Support Services, and the Illinois Department of Human Services. The results and interpretations in this research do not reflect the opinions or views of these organizations.

About the Authors

Michael López, PhD, is a principal associate at Abt Associates, with over 25 years of experience conducting policy-relevant early childhood research at the state and national levels, with an emphasis on culturally and linguistically diverse populations. He is currently co-principal investigator for the National Research Center on Hispanic Children and Families and the National Study of Migrant and Seasonal Head Start.

Todd Grindal, EdD, is a senior researcher at SRI International, where he studies how policies and practices influence the development of young children and children with disabilities. Dr. Grindal is a regular contributor to the Huffington Post, for which he writes about research and social policy. <http://www.huffingtonpost.com/todd-grindal/>

Wladimir Zanon, PhD, is a senior researcher at Chapin Hall at the University of Chicago and a fellow of the Harris School of Public Policy at the University of Chicago. He studies the development of human capital during early childhood and adolescence. His work involves developing analytic methods for the use of administrative records in quantitative policy evaluation.

Robert Goerge, PhD, is a senior research fellow at Chapin Hall at the University of Chicago and a senior fellow at the Harris School of Public Policy at the University of Chicago. For over 25 years, he has worked with state and federal agencies to conduct research that improves child and family policies and programs. He is principal investigator of the Family Self-Sufficiency Data Center, funded by HHS/ACF/OPRE.

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 and Families

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

HispanicResearchCenter.org



NEW YORK UNIVERSITY
Institute of Human Development
and Social Change



COLLEGE OF
EDUCATION



THE UNIVERSITY of NORTH CAROLINA
GREENSBORO