Is Public Pre-K Preparing Hispanic Children to Succeed in School?

by Luis M. Laosa and Pat Ainsworth

The growth in public preschool education is based on research that shows high-quality prekindergarten has a positive effect on children’s chances of succeeding in school and life.

Beneath the surface of this growth, however, lies a troubling lag in preschool education participation by the nation’s largest, fastest growing and yet most educationally challenged group—Hispanic children, who may be challenged by issues of poverty and language. Many Hispanic children enter school well behind their non-Hispanic counterparts, achieve at lower levels throughout school and graduate at lower rates.

The gap in school readiness is unlikely to improve unless we address it with policies that increase preschool participation by Hispanic children and design programs that better accommodate their learning needs. Doing so may well entail rethinking the current approach to many programs.

What We Know:

• People of Hispanic descent comprise the fastest growing and least well-educated segment of the population.
• Hispanic families are least likely of any group to send children to public preschool education programs due in part to parental education, language barriers, low socio-economic status and lack of program access.
• Preschool education programs targeted to disadvantaged families fail to serve many Hispanic families who qualify.
• Hispanic children who attend high-quality preschool education have been found to benefit as much as children from other backgrounds…and in some cases, more.
• The prevalence of English Language Learners (ELL) in the preschool-aged Hispanic population is likely one reason this group lags behind children of other backgrounds on early learning measures.
• New approaches to serving English Language Learners hold promise for serving this population more effectively and efficiently.

Policy Recommendations:

• States should evaluate their preschool education policies, with Hispanic children in mind. If ELL status is not a factor considered for targeted program eligibility, a consideration should be given to making it so.
• As future programs expand, conducting comparative analyses of targeted programs and pre-K for all children may prove useful. Universal programs can cost less per child and resolve problems of eligibility.
• States should ensure programs have some support for ELL children in their home language. Programs providing some support in the home language have been shown to foster improved cognitive, linguistic and social outcomes. More effort is needed to prepare and support teachers to meet the needs of Hispanic children.
• It should be a high priority at the state and federal levels to develop better reporting systems to ensure quality data for stronger research on Hispanic children and early education policies.
Population Trends

The nation’s Hispanic population has increased by about 58 percent in the last decade.¹ People of Hispanic descent comprise about 12.5 percent of the general population, but children of Hispanic descent represent 21 percent of all the children under age 5. The U.S. Census Bureau projects that by 2025 the Hispanic population will increase from its current level of 35 million to 61 million, at which point it will constitute 18 percent of the U.S. population.

The need to effectively address this burgeoning population with effective early childhood education is made all the more urgent by the fact that, as a group, Hispanics are the least well-educated segment of the American population.² Only 57 percent of Hispanics finish high school and only about 10 percent earn a college degree. Yet problems that become apparent among Hispanics in high school and college can be rooted in academic difficulties that begin much earlier.

Current Pattern of Disparities

A federally funded study has shown that Hispanic children enter kindergarten well behind their non-Hispanic peers.³ In that U.S. Department of Education study, 75 percent of White children could recognize letters in the fall of their kindergarten year while only about half of Hispanic children could do so. This pattern of disparities occurred in other measures as well, including math skills. While Hispanic children made substantial progress in reading and math by the end of first grade, they continued to lag in acquiring skills considered essential to early reading and math development.

The federal government’s National Assessment of Education Progress (NAEP) provides a picture of school achievement in which Hispanic

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Figure 1. Percentage of Children Scoring Below the Basic Level in Reading and Math on the 2005 NAEP

Source: National Assessment of Educational Progress (NAEP) 2005.
children consistently underperform relative to White non-Hispanic children. In 2005, 32 percent of Hispanic fourth graders scored below Basic in math compared to 16 percent of all others. In eighth grade, 48 percent of Hispanics scored below Basic in math compared to 28 percent of non-Hispanics.

A similar pattern prevails in reading with 54 percent of fourth grade Hispanic children scoring below Basic compared with 31 percent of non-Hispanics. In eighth grade, 44 percent of Hispanic children scored below Basic in math compared with 24 percent of non-Hispanics. (See Figure 1.)

The extent to which this gap in achievement is due to language issues becomes clear when we look at NAEP scores for English Language Learners (ELL).

Comparing scores of ELL Hispanics with non-ELL Hispanics shows how large a barrier language can be to learning in this group. According to NAEP, in fourth grade, 49 percent of Hispanic ELL children scored below Basic in math compared with 22 percent of Hispanic children who are not ELL. In eighth grade, 77 percent of Hispanic ELL children scored below Basic in math compared with 40 percent of non-ELL Hispanics. A starker pattern persists in reading. In fourth grade, 76 percent of ELL Hispanics scored below Basic in reading compared with 43 percent non-ELL Hispanics. In eighth grade, 76 percent of ELL scored below basic compared with 35 percent of non-ELL Hispanics.

It should be noted that ELL children are taking the NAEP reading and math tests in English, a language in which, by definition, they are not yet proficient. It is therefore difficult to judge how much of their poor performance on these tests is a function of low skill levels in the subject matter and how much is a function of limited knowledge of English. (See Figure 2.)
This gap in school achievement occurs at a time when Hispanic families are less inclined or able to send children to preschool programs than families from other demographic groups. According to the 2005 National Household Education Survey (NHES), 30.5 percent of Hispanic 3-year-olds attended center-based preschool education programs as opposed to a 45.8 percent attendance rate for non-Hispanic children that age. (See Figure 3.) Participation rates were higher but continued to lag behind other groups at age 4.

Where they are available, the preschool programs Hispanic children attend are not all educationally effective. Policymakers are faced with the twin challenges of raising the educational effectiveness of existing programs and of increasing access for children who currently have none. Left unresolved, these quality and access deficits—and the lag in preschool attendance accompanying them—are likely to place a growing burden on schools as more Hispanic children enter K-12 education lacking the experiences preschool can offer in preparation for kindergarten success.

It is noteworthy that the differences in preschool participation rates between Hispanic and non-Hispanic children do not appear to be primarily due to cultural issues. A 2004 analysis by Barnett and Yarosz found that Hispanic children were not significantly less likely to attend preschool programs than White non-Hispanic children after controlling for factors such as education, income, employment, family structure and region of residence.

Indeed, the same family background factors that predict low levels of school readiness and low achievement throughout school go a long way toward explaining why many families are less likely to send their children to preschool programs.
Family income and education levels of mothers have a substantial effect on whether children attend preschool programs. A 2000 Census, 35 percent of Hispanic children 3 to 5 years of age were from families with incomes under $25,000 per year compared with 24 percent of children of all backgrounds (see Figure 4). Since some portion of the population of Hispanic families likely migrated into the U.S. illegally in response to demand for low-paying jobs, there is a high likelihood that the percentage of Hispanic children from low-income families is even higher than these data indicate.

An even starker disparity occurs in maternal education, with 43 percent of Hispanic children 3 to 5 years of age coming from families where the mothers have less than a high school diploma compared with 16 percent of children from all backgrounds.

Regardless of ethnic background, children are less likely to attend preschool education at lower levels of family income, when there are low levels of maternal education, and when mothers are not employed outside the home. It should come as no surprise that when such circumstances occur at higher rates among Hispanic families, children from those families attend preschool education programs at substantially lower rates.

Yet, Hispanic families are strongly positively disposed toward preschool education. A 2006 survey of 1,000 Hispanic families in 10 states conducted by the Tomás Rivera Policy Institute found that 97 percent of parents said they would enroll their children in free voluntary preschool education if it were available in their communities. Ninety-six percent indicated they believe it is important for children to attend preschool programs before kindergarten.
Hispanic Children’s Achievement in Preschool Education

The pattern of reduced preschool attendance among children from Hispanic backgrounds accounts for at least a portion of the school readiness gap experienced by this population. If policymakers are to address these issues with sound preschool programs, it is important to understand the effects preschool education programs have on this group of children. Model preschool education programs that have been evaluated with Hispanic children in mind are the exception rather than the rule. Even less common are programs that have been analyzed for subsets of the Hispanic population such as children of recently arrived immigrants, middle-income Puerto Ricans, or Mexican-American children from disadvantaged backgrounds. Even so, research evidence from studies of state programs, Head Start and the national Early Childhood Longitudinal Study (ECLS-K) are encouraging. It indicates that not only do Hispanic children benefit from preschool education as much as children from other backgrounds but in some cases, they benefit more.

Oklahoma’s Universal Preschool Program - Most states target their programs to low-income children and children with other characteristics that put them at risk for starting school behind their peers. To date, Oklahoma made more progress than any other state in making state-funded preschool available to all 4-year-olds whose families want them to participate.

An evaluation of the Oklahoma Preschool Program by Georgetown University’s William Gormley and colleagues scrutinized the effects of the program separately by ethnic group, allowing an analysis of the program effects on Hispanic children.

The sample consisted of more than 3,000 children in Tulsa. The study employed a rigorous research design that, while not as “bullet-proof” as a randomized trial, provides a relatively strong basis for accurately estimating the effect of the preschool program. Children were administered three subtests of the Woodcock-Johnson Achievement Test, a standardized, nationally normed test widely used in studies of early education and its consequences.

The study showed statistically significant impacts of the preschool program for each subtest for each of four groups—Hispanic, African American, Native American, and White children. In the areas of letter-word identification, spelling and applied problem-solving, gains for Hispanic children exceeded those of children from other backgrounds. The study did not address long-term impacts but answered only this question: Did the children who attended the Tulsa, Oklahoma program obtain higher test scores at kindergarten entry as a result of attending the program? It is important to note that the reasons gains are larger for Hispanic children cannot be determined from this study. For example, gains could be larger because of family home language backgrounds or because of lower access to private preschool education alternatives. Still, it is noteworthy that results were solidly positive in a high-quality program that requires bachelor’s degrees for teachers and pay that is on a scale with public school salaries.

Head Start Impact Study - Begun in 1965 as part of the War on Poverty, Head Start has as its goal to boost the school readiness of low-income children. Based on a “whole child” model, the program provides comprehensive services that include pre-school education; medical, dental, and mental health care; nutrition; and parental involvement. Head Start services are designed to be responsive to each child’s ethnic, cultural, and linguistic heritage. The Congressionally mandated Head Start Impact Study is an ongoing random sample study conducted on a nationally representative sample of Head Start grantee/delegate agencies. A 2005 report presents findings on impacts after one year in Head Start (fall 2002 to spring 2003). It quantifies the impact of Head Start across child cognitive, social-emotional, and health domains as well as on parenting practices.

The study examines the impact of Head Start separately for each major racial/ethnic group, allowing analyses of the impact of Head Start on Hispanic children. The fact that both Head Start programs (e.g., grantee/delegate agencies) and children were randomly selected makes results generalizable to the entire Head Start program, not just the selected study sample.

Overall, children who attended Head Start showed moderate gains over children who did not in some measures of school readiness, health status and how well their parents did such things as read to them. The study showed gains in six measures of school readiness for 3-year-olds and four measures for 4-year-olds.

For Hispanic 3-year-old children, positive impacts occurred in pre-reading, vocabulary and pre-writing. No statistically significant impacts were found for Hispanic 4-year-olds. However, keep in mind that focusing only on Hispanics reduces the power to detect effects and this does not mean that effects at age 4 were smaller for Hispanics than for the general population. It should be pointed out that one of the limitations of this
study is that crossovers took place. Some children assigned to Head Start did not attend and some not assigned attended Head Start or other preschool education programs. Crossover tends to result in underestimating Head Start’s effects. Nonetheless, the study suggests a need for efforts to improve program effectiveness.

New Jersey’s Abbott Preschool Program - In 2004, NIEER researchers studied New Jersey’s Abbott Preschool Program as part of a multi-state study of state-funded preschool. The result of a court-ordered remedy in a school funding case, this program applies to a class of school districts identified as poorer urban districts or special needs districts. All 3- and 4-year-old children in those districts are provided a state-funded standards-based preschool education with rigorous requirements for class size, teacher-student ratios and teacher certification. While the Abbott prekindergarten study does not break out results by demographic group, it is noteworthy that meaningful impacts were seen for all children, regardless of background in a sample, about 40 percent of which was comprised of Hispanic children and 30 percent ELL children. 

Using the same rigorous methodology applied in the Tulsa, Oklahoma study, NIEER assessed children from a sample of more than 2,000 across 21 Abbott districts for language, early literacy and early math skills. The results showed that the Abbott Preschool Program had statistically significant and meaningful impacts on children’s language, literacy and math development. Effects were strongest for language and literacy.

Analyses of ECLS-K Data - Researchers studied the effects of all types of preschool education and child care centers on children using data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K), collected by the National Center for Education Statistics (NCES). The study provides a national sample of children who showed at least minimal levels of English-language proficiency (on the pre-reading assessment). The data were drawn from interviews with the children’s parents and teachers, along with direct assessments in kindergarten and later grades.

The researchers separated children into four mutually exclusive child care types: (non-Head Start) center program, Head Start program, parental care, and non-parental care. No attempt was made to discern predominately custodial child care programs from more educationally effective prekindergarten programs. The analyses investigated the effects of these programs on achievement by children’s racial/ethnic group (White, African-American, and Hispanic).

The analyses found that Hispanic children benefited more in terms of cognitive development from center attendance than White non-Hispanic or African-American children with similar characteristics. The magnitude of test score gains was dramatically larger for Hispanic students than for the other groups. For instance, center attendance was associated with an increase in the reading scores among Hispanic students of about three times that seen for White children and about double that seen for African-American children. Hispanic children who attended Head Start were found to perform better in reading than those who received maternal care.

These results for Hispanic youngsters are only generalizable to those children with minimal proficiency in English because of this study’s limited sample. Nevertheless, when taken with results from the Oklahoma, Head Start and New Jersey studies, they strengthen the conclusion that Hispanic children make significant gains when provided early care and education, often surpassing children from other backgrounds in the rate of gain they can attain.
Language presents a barrier to education for many children from Hispanic families. Children who are English Language Learners (ELL) constitute nearly 12 percent of the total preschool through grade 6 population in the U.S. ELL children are heavily concentrated in the lower grades, with more than 44 percent of all ELL children in the national student population enrolled in prekindergarten through grade 3. Hispanic children comprise the largest group of English Language Learners in the student population. A central issue—and one not without controversy—is the language used in teaching ELL children. School systems historically have encouraged English language abilities to the neglect of a child’s home language. Proponents of the bilingual approach, in which children are taught in their home language, emphasize that linguistic, cognitive and social development are interrelated and proceed simultaneously. They say children faced with a language in the preschool classroom with which they are not yet conversant are more likely to fall behind. Another concern is that such children may lose facility in their first language.

Research has found that high-quality bilingual preschool programs—those in which teachers use children’s first language at least part of the time—promoted development in both languages rather than impeding growth in the first language. Fears that English acquisition will not occur if young ELL children are partially taught in their home language appear to be unfounded.

In one analysis of 11 studies comparing bilingual programs with English-only programs, ELL children in elementary schools who attended two years of bilingual programs were found to perform at the 34th percentile. ELL children who attended English-only programs were found to perform at the 26th percentile. Other studies have found that teaching academic skills such as reading in the first language is more effective in terms of second language achievement than simply immersing children in English.

California’s Carpinteria Preschool Program, in which most teachers and children are native Spanish speakers, provides an example of the benefits of first language instruction. Research on that program showed positive effects of learning in children’s first language (Spanish) on acquisition of their second language (English) when the children were older. Although the Carpinteria preschool education was conducted entirely in Spanish, almost half of the children who attended were fluent in English by first grade.

Various bilingual approaches have been developed as a means to increasing the achievement of ELL children. Where bilingual programs require teachers be fluent in and teach in two languages, providers have encountered difficulty recruiting enough qualified teachers to meet the demand for such classrooms. The shortage of qualified teachers can be especially acute in states experiencing high levels of immigration.

A relatively new approach to bilingual education is Two-Way Immersion (TWI). Also known as dual language, TWI programs have all students, both ELL and English proficient children, alternate between Spanish-only and English-only classes, providing all children with an education in two languages. TWI programs build on research on effective practices in the education of ELL students, including evidence from the Carpinteria studies and others indicating that first language proficiency strengthens second language acquisition and that bilingualism has cognitive benefits.

A study of one such program conducted by NIEER found that both Spanish speakers and English speakers made gains. Researchers conducted a randomized trial in which a lottery assigned children to a newly established TWI program in a Northeastern U.S. city where about 50 percent of the population is Hispanic. Children not selected into the TWI program attended predominantly English Immersion (EI) programs. Children in the study were from both Spanish and English home language backgrounds.

The TWI program alternated between English and Spanish weekly by rotating children between two classrooms and sets of teachers each week. Programs were compared on
measures of children’s growth in language, emergent literacy and mathematics. Children in both TWI and EI programs made strong gains on English language measure of achievement. No significant differences between treatment groups were found on English language measures. However, only the TWI children also made gains in Spanish language acquisition. In fact, Spanish language children in the TWI program gained against Spanish language age norms while their peers in the EI program lost ground against Spanish language age norms.29

It should be noted that while both programs were of high quality, the TWI program had a longer day. There was also some Spanish support in the EI program. More research needs to be conducted on TWI with larger sample sizes. The fact that both groups made gains on English language measures was encouraging. Since TWI need not require employing more total teachers than EI programs and fewer teachers than traditional bilingual programs, it could be a cost-effective alternative to both.

Additional evidence on the value of the home language of ELL children comes from a recent study by researchers at the University of North Carolina. They found that Spanish-speaking children with teachers who spoke some Spanish in the classroom were rated by their teachers as having better social skills and closer relationships with their teachers than children with teachers who did not speak Spanish in the classroom. Children experienced less bullying by their classmates, and teachers had a more positive view of these children.29

There is no single solution to the language of instruction issue. Much depends on the population served and resources at the disposal of policymakers. Some states are moving toward policies favoring English Immersion programs over those in which at least some education occurs in the home language of ELL.

English-only policies for preschool children are not supported by research. To the contrary, research finds that there are advantages to other approaches. Of course, research does not answer all of policymaker’s questions. For example, research has not compared Spanish-only and TWI programs. Moreover, even English Immersion programs have been found to produce strong gains for ELL children (in English) when such programs were of high quality. Obviously, this does not mean that such programs would not be strengthened by incorporating more support for children’s first language. It is critically important that strong research on language of instruction be undertaken at the preschool level since much of what we know is based on inadequate research or extrapolated from K-6 education.

Expanding Access for Hispanic Children

Delivery of publicly funded preschool education has traditionally followed the model implemented with federal Head Start of targeting services to the neediest families. The targeting concept historically has garnered strong political support because in theory it maximizes resources efficiently by concentrating them where the most need occurs and total program cost is less than providing services to all children regardless of need.

In order for targeted programs to achieve the expected efficiencies, however, they must reach and serve the target population. For reasons ranging from inadequate funding to families physically moving to families moving in and out of poverty, this goal remains largely unattained. After 40 years of experience with targeting, Head Start and other major targeted programs fall short of reaching their eligible populations.31

Given the inherent shortcomings of targeting services, the inability of extant programs to serve Hispanic families at levels commensurate with other groups and the rapid growth in this already under-served population, it is difficult to envision how expanding targeted programs can make enough progress to adequately serve Hispanic children. However, it is possible to increase Hispanic participation in targeted programs through modifications to the eligibility process. For instance, only 12 states currently consider English Language Learner status as a factor making children eligible for targeted programs. Making ELL children eligible for more targeted programs could increase Hispanic participation in those programs.32

A number of states, including Florida, Georgia, Illinois, Iowa, New York, Oklahoma and Tennessee have made the provision of state-funded prekindergarten to all children a policy goal. Since universal programs have no eligibility requirements when fully implemented, they are by definition likely to reach more Hispanic families. States with this as a policy goal are substantially more likely to succeed in enabling all Hispanic children to attend public preschool as they expand access in the future.
Research has consistently shown that 3- and 4-year-olds who attend a high-quality preschool are more successful in kindergarten and beyond. Yet many preschool programs Hispanic children attend are lacking in quality. A minority of private, center-based care has been judged to be of good quality. Head Start, which Hispanic children are more likely to attend than White children, is effective but its effects appear to be smaller than is desirable. One problem is that teacher quality is limited by small salaries. While we have discussed gains made by children in high-quality state-funded programs, programs in some states with large Hispanic populations have substantially lower standards and financial support.

The relationship between teacher and preschool student is a critical element of success. It is important that teachers in classrooms comprised of Hispanic youngsters be prepared to meet the needs of their students. Linguistic and cultural understanding contribute to establishing trusting relationships that keep Hispanic students connected to the classroom. Teachers trained to teach young Hispanic children in linguistically and culturally appropriate ways are more likely to succeed. Despite the importance of this dynamic between teacher and student, teacher training in Spanish language and Hispanic culture is lacking in most early childhood teacher education programs.

Whether one chooses to focus on preschool program standards such as teacher-child ratios, class size and teacher qualifications, or on the quality of educational practices emphasizing actual experiences in the classroom, or both, there is one inescapable conclusion: Far too many of the preschool programs available to children today are not good enough.

Conclusions

Research shows that, when afforded the opportunity to access high-quality preschool education, children of Hispanic descent make significant gains in learning and development, including areas such as vocabulary and letter knowledge that are strongly predictive of later reading success. This suggests that broadening access to high-quality programs to a larger segment of the Hispanic population can improve school readiness among this population.

Increasing participation in high-quality programs is one effective public policy to address problems common among Hispanic youth. It has the potential to increase high school graduation rates, reduce grade retention, and reduce involvement in crime and delinquency. The benefits from these outcomes accrue not just to the individual but to society in the form of reduced education and criminal justice systems costs.

For reasons ranging from lack of access to lack of resources to lack of awareness, Hispanic children participate in preschool programs at far lower rates than other groups. Policymakers should consider measures designed to broaden access by Hispanic populations in their states. Those measures range from raising eligibility requirements so that they include low- and lower-middle-income families in targeted programs to making limited English proficiency a criterion for program eligibility to developing plans to make publicly funded preschool education available to all age-eligible children.

Language likely remains a barrier to preschool participation for many Hispanic families. Not only may children with limited English proficiency struggle in classrooms where their native language is not spoken, but families who should be aware of the importance and availability of public preschool may not be, due to less-than-effective outreach. More resources should be devoted to providing classrooms with language-appropriate instruction. More programs that prepare early childhood educators for the classroom should provide training aimed at addressing the needs of Hispanic children and their families. Finally, more research is needed to develop approaches that are maximally effective with ELL children.

Strong research is urgently needed to inform early education policy in regard to the educational needs of Hispanic children. That effort can be aided immeasurably by better systems for reporting the data upon which future research is based.

Unless substantial efforts are made on many fronts to increase access to and participation in high-quality preschool programs that effectively educated children from Hispanic backgrounds, our nation will be the poorer for it.
Endnotes


29 In the NIEER study, Barnett, et al. (2006), the TWI program operated for slightly longer hours. Whether this is an important factor in its effectiveness couldn’t be determined.


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