Determinants of After-School Programming for School-Age Immigrant Children

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The purpose of this study was to examine the child and family characteristics that predict enrollment in after-school programming for school-age children of immigrant and nonimmigrant families. Although much is known about the beneficial effects of after-school programming for children and youths, the literature focused on immigrant children—the fastest growing segment of the youth population today—is limited. Using 2005 National Household Education Survey data, this study compares the effects of child and family characteristics on enrollment in a nationally representative sample of 7,694 school-age children. Results from this study add to the current body of research on after-school programming and suggest that the importance of mother's immigrant status did not vary according to demographic characteristics such as ethnicity, household income, and education. However, children of immigrant families were found less likely to be enrolled in after-school programming than their native-born counterparts. In light of these results, social work practice and policy must address access and affordability of quality after-school programming for all school-age children.

KEY WORDS: after-school activities; after-school care; after-school programming; immigrant populations; school-age immigrant children

hildren of immigrants are currently the fastest growing segment of the youth population (Magnuson, Lahaie, & Waldfogel, 2006). Today 20 percent of young people growing up in the United States have immigrant parents (Hernandez, Denton, & Macartney, 2009; Suárez-Orozco, Suárez-Orozco, & Todorova, 2008), up threefold from 6 percent in 1970 (Magnuson et al., 2006). Furthermore, it is projected that by 2040, one in three children will grow up in an immigrant household (Hernandez et al., 2009; Suárez-Orozco et al., 2008). These dramatic demographic changes hold tremendous implications for education, social work practice, and public policy.

Meeting the academic and social needs of this growing group of children is essential for their successful development and future. Unfortunately, children of immigrants are more likely than nativeborn children to suffer academically (Hernandez, 1999). After-school programming is one important way to address this issue. According to Suárez-Orozco et al., (2008), it is through relationships with peers, teachers, coaches, and other school personnel that immigrant children develop, gain new opportunities, and begin a path to a successful future.

Although much is known about the beneficial effects of after-school programming for children and youths, the literature focused on immigrant children is sparse. Given the current academic outcomes for some of these children (Kao & Tienda, 1995), the growth in the immigrant school-age population (Hernandez et al., 2009; Suárez-Orozco et al., 2008), and increasing public expenditures in this area (Blau & Currie, 2004; Gardner, Roth, & Brooks-Gunn, 2008; Waldfogel, 2006), there is a pressing need for more information on how school-age immigrant children spend their time outside of school.

BACKGROUND

Current immigrant populations are more likely to be poor and less educated (Magnuson et al., 2006). School-age children in immigrant families are approximately 75 percent more likely to be poor than children in native-born families (Hernandez et al., 2009). They are also more likely to have uneducated parents. Specifically, they are more likely to have parents who have not graduated from high school (40 percent) as compared with children of nonimmigrant parents (12 percent) (Hernandez et al., 2009). Parental education is a strong predictor of children's educational

attainment (Hernandez et al., 2009; Suárez-Orozco et al., 2008). More highly educated parents are better able to help with schoolwork, are more informed about educational opportunities and options, and typically earn more, thereby having more resources to invest in their children's academic career (Hernandez et al., 2009). The same may be said for after-school programming; more highly educated parents may have advanced knowledge of its benefits and may be in a better position financially to enroll their children in private, high-quality programming.

Another common challenge for immigrant families and their children is limited English language proficiency. Among children in immigrant families, 72 percent speak a language other than English at home (Hernandez, 2004). Furthermore, many live in a "linguistically isolated household," where no one over the age of 13 speaks English exclusively or well (Hernandez, 2004). Although school-age children of immigrants often live in families with lower levels of parental education and are more likely to be poor and linguistically isolated than their nativeborn counterparts, their families possess important strengths. First, these children often have the advantage of growing up in a household with two parents. A recent study shows that 83 percent of children of immigrants live with both parents as compared with three-fourths of native-born children (Hernandez et al., 2009). As previous literature attests, children living with only one parent tend to experience more difficulties than those living with two parents, including less success in school (McLanahan & Sandefur, 1994).

Another important strength is the high rate of labor force participation among immigrant families. Almost 90 percent of school-age children of immigrants whose fathers live with them have fathers who are employed. Furthermore, many of these families include additional workers. This can mean more resources for the household and can expose the children to a strong work ethic that may lead to increased efforts in school (Hernandez et al., 2009).

BENEFITS OF AFTER-SCHOOL PROGRAMMING

Given the growing numbers of immigrant children in school and the barriers their families may face, research on educational programs from prekindergarten through high school is critical, because it can affect educational policy and programs so that they better serve this growing population (Hernandez et al., 2009). One important area is after-school programming. After-school programming includes any activity or program supervised by an adult that involves other children and occurs outside of school hours (Mahoney, Larson, & Eccles, 2005). Such programs provide supervision, enrichment, recreation, tutoring, and other opportunities for school-age children (Blau & Currie, 2004). This programming has been shown to be a critical component of a school-age child's education for a number of reasons (Smolensky & Gootman, 2003). First, school-age children are developing a sense of industry, and those who succeed will be better prepared for the upcoming challenges of adolescence. Second, peers begin to become very important to school-age children and as a result, this age group becomes more susceptible to peer influences (Waldfogel, 2006). Participating in quality afterschool programming with positive behaviorreinforcing peers is one way to help this age group successfully navigate this stage of development.

There is substantial evidence demonstrating the positive associations between participation in organized after-school activities and positive youth development (Eccles & Gootman, 2002; Mahoney et al., 2005). Participation in after-school activities has been found to be a productive use of time because it provides diverse opportunities for development and growth (R. Larson, 2000). Most of the literature focuses on adolescents and shows that such participation provides important opportunities for children of this age to develop physical, social, emotional, and cognitive skills (J. Larson, 1994: Mahoney et al., 2005) and to form relationships with friends and adult mentors (Posner & Vandell, 1994). Educational benefits have been reported as well (Cooper, Valentine, Nye, & Lindsay, 1999; Marsh & Kleitman, 2002; Smolensky & Gootman, 2003), and most recently this positive association has been found to last eight years after high school (Gardner et al., 2008).

Research focused on school-age children has indicated that these types of activities benefit this age group also (Smolensky & Gootman, 2003). A generally consistent finding from observational studies is that school-age children who attend afterschool programs tend to have better behavioral outcomes (Waldfogel, 2006). In addition, children who consistently participated in extracurricular activities during kindergarten and first grade obtained higher

reading and math scores at the end of first grade than did children who sometimes or never participated in extracurricular activities (National Institute of Child Health and Human Development [NICHD], 2004). Extracurricular activities were also found to be positively related to functioning in older school-age children. For example, one study found that time spent in these activities during third, fourth, and fifth grades predicted a child's emotional well-being in fifth grade (Posner & Vandell, 1999). Most recently, enrollment in after-school programming by middle school-age children was associated with higher than expected grades, higher self-esteem, resiliency, and lower than expected risky behavior (Fredricks & Eccles, 2008).

The literature on after-school programming for immigrant children is sparse. As indicated by Suárez-Orozco et al. (2008), immigrant children are rarely left unsupervised. Seventy-eight percent of the participants in their study claimed that they were under some kind of supervision. The majority reported spending after-school time with family members such as parents, siblings, or extended family members. Only 9 percent reported participating in after-school classes or other academic enrichment programs.

RELATIONSHIP BETWEEN CHILD AND FAMILY CHARACTERISTICS AND AFTER-SCHOOL PROGRAMMING

Patterns of participation have been shown to vary by individual and family characteristics though few nationally representative studies exist (Hofferth & Sandberg, 2001), and much of the work used simple, bivariate comparisons (Smith, 2002). For example, previous research has shown that children from higher income families and employed mothers are more likely than lower income families and unemployed mothers to attend after-school programs (Smith, 2002). Children from higher income families are also more likely than lower income families to participate in extracurricular activities (Pettit, Laird, Bates, & Dodge, 1997). These studies have attributed more economic resources in addition to knowledge of the associated benefits and developmental needs for children as reasons for participation. A more recent study, though not nationally representative, confirmed these findings for out-of-school care in general (NICHD, 2004). In 2001, Hofferth and Sandberg used nationally representative data and included additional predictors of enrollment in after-school child care arrangements, extracurricular activities, and family time. With respect to extracurricular activities, results indicated that children were more likely to participate when their mothers were more educated and their families had higher incomes. The child's ethnicity was included in this study in an effort to reflect cultural differences in use patterns. Results showed that children of Asian descent spent more time in educational activities at home, black children spent more time in church activities, and Hispanic children spent more time in family activities such as the performance of household chores.

In the current study, I consider a broad array of child and family characteristics as potential predictors of enrollment in after-school programming. Some of these factors, such as family income, ethnicity, maternal education, and maternal employment have been examined in previous research. Another, the child's current academic performance, was included because some after-school programming selects children on the basis of academic need (Eccles & Gootman, 2002). Furthermore, there is a growing literature on the academic performance of immigrant children both across different ethnic groups and by acculturation status. As some have advocated after-school programming as a way of improving academic achievement (Belden, Russonello, & Stewart, as cited in NICHD, 2004), this study's results contribute to that literature as well.

Past research on the academic performance of immigrant youths has focused on heterogeneity across ethnic groups and between generations. Some studies have found that children of contemporary immigrants tend to do better than native-born Americans in U.S. schools (Fuligni, 1997; Suárez-Orozco & Suárez-Orozco, 1995). Others found that Hispanic, black, and white youths of immigrant parents performed as well as their native-born counterparts whose parents were born in the United States, and Asian youths of immigrant parents performed better than their counterparts with native-born parents (Bankston & Zhou, 2002; Kao & Tienda, 1995). Furthermore, first and second generations received higher grades than their native peers and compared with immigrant youths in third and higher generations (Fuligni, 1997; Kao & Tienda, 1995). One recent study attributed this finding to a decline in academic motivation and achievement

with successive generations (Rosenbaum & Rochford, 2008). In terms of continued achievement among immigrant children, Glick and White (2003, 2007) found that the best predictor was not nativity but family socioeconomic status.

The present study builds on and adds to the current after-school literature using a nationally representative data set that is specific to after-school programming. The statistical analyses presented consider the various factors that influence after-school program participation, with an emphasis on maternal place of birth and language as a proxy for immigration status in an effort to compare participation patterns of immigrant and nonimmigrant children.

METHOD

Sample

Data were drawn from the National Household Education Survey (NHES) (Hagedorn, Montaquila, Carver, O'Donnell, & Chapman, 2006), a public household-based data set from the National Center for Education Statistics designed to gather information on the educational activities of the U.S. population. It includes surveys on adult education, parent and family involvement, early childhood program participation, before— and after-school activities, school readiness, school safety, and school discipline.

Participants responded to the After-School Programs and Activities (ASPA) survey questions in 2005. The interview was completed regarding 11,684 children and conducted with the parent or guardian most knowledgeable about each child's after-school activities (Hagedorn et al., 2006). The ASPA module includes questions about children's participation in after-school programs and activities including center or school-based programs, arrangements with relatives, arrangements with nonrelatives, and activities children participate in after-school. The module also captures characteristics on extensive background and household information.

The selection of sampled children was random; a household screener was used to enumerate all children in the household. Sampling of the focal child for the extended topical interview was then conducted via computer-assisted telephone interviewing so that the child was selected automatically. Thus, sampling was automated and not performed by the interviewer.

In these data, poststratification adjustments ensured that the survey weights summed to known population total based on the October 2003 and March 2004 Current Population Surveys, thereby eliminating the need to use weights during analysis. Raking to population totals allowed for statistical adjustment and reduction of undercoverage bias. Raking is an alternative to cell weighting that improves the similarities between the sample and the population that could be due to nonresponse, sample fluctuation, or sample design. For example, raking can adjust the sample composition to account for underrepresentation of certain groups such as households or people without telephones. The raking procedure typically improves reliability. Furthermore, previous studies have indicated that undercoverage bias has not been a significant problem in the NHES with adjusted weights after raking, yielding estimates with coverage bias of 2 percent or less (Hagedorn et al., 2006).

The present study focused on children who, at the time of the survey, were six to 12 years of age, were enrolled in school, and had a mother in the household. The data yielded a nationally representative sample of 7,694 children.

MEASURES

Dependent Variable

The dependent variable indicates whether the child is in any type of after-school activity. The variable characterizes any after-school program or activity that the child participates in, such as organized sports, music lessons, scouts, religious education, volunteer work, or after-school clubs. Specifically, NHES asks whether or not the child participates in any activities on a regular, weekly basis during weekdays after school hours.

Independent Variables

The independent variables in these models include those factors that may aid or limit immigrant and nonimmigrant families' choices to enroll their children in after-school programming. As NHES data do not include information on immigrant status, I used mother's place of birth and language as a proxy in an attempt to compare children of immigrant mothers to children of nonimmigrant mothers. A child was, therefore, considered a member of an immigrant family if his or her mother was born outside of the United States (and U.S. territory) and spoke a language other than English in the home.

As English language proficiency can affect a parent's ability to navigate the U.S. educational system (Carreón, Drake, & Barton, 2005), this was included in the definition of the variable.

Additional predictor variables include the following: mother's marital status (married versus not married, which includes single, divorced, and widowed); maternal education (high school degree, some college, and college degree or more); maternal work status (working full-time, working parttime, and looking for work); household income by quartile (less than \$25,000, \$25,000 to \$50,000, \$50,000 to \$75,000, and \$75,000 and above); child's grade in school (kindergarten through seventh grade); child's race or ethnicity (non-Hispanic black, Hispanic, American Indian, Asian, or other); and child's current academic performance.

The child's current academic performance was determined by the letter grade (A, B, C, D, F) he or she received most at school, as reported by the parent or guardian. For those children who did not receive letter grades at the time of the survey, the parent or guardian was asked to describe the child's work at school as excellent, above average, average, below average, or failing. The final measure of academic performance used in the analyses included three categories derived in the following manner: excellent (mostly As and those children without letter grades whose parent or guardian responded "excellent"), above average (mostly Bs and those children without letter grades whose parent or guardian responded "above average"), average to below average (mostly Cs, Ds, Fs, and those children without letter grades whose parent or guardian responded "average," "below average," or "failing"). It must be noted that 2,172 cases were those children without letter grades. Simply dropping these cases would have biased the sample in favor of older children, as the children without letter grades were predominantly younger. Therefore, I retained those cases to maintain the full sample. Analyses (not shown but available on request) were run with the smaller sample, and results were similar. Lastly, it is also important to note that the absence of complete data on father's characteristics prevented the use of these variables in the models.

Analytic Strategy

To gain a preliminary understanding of participation in after-school programming for immigrant and nonimmigrant children, I began the analysis

by exploring enrollment patterns across type of after-school programming for both groups. Next, to estimate associations between the child and family characteristics and the dependent variable, I ran a series of logistic regression (logit) models. In the first model, I simply regressed the variable child of immigrant mother on whether or not the child participated in an after-school program to examine the direct effect of immigrant status on after-school program participation. In model 2 (see Table 3), I added the child and family characteristics as controls. For the final model, I added terms that interacted the child of immigrant indicator with the child and family characteristics present in model 2. This was done to test whether the effects of being an immigrant had differential effects on afterschool program participation across the demographic characteristics.

RESULTS

Descriptive Findings

Descriptive statistics for the child and family characteristics and the dependent variable, whether or not the child participates in after-school programming, are presented in Table 1. Approximately 14 percent of all children in the sample had an immigrant mother. A minority of all children had mothers (23.5 percent) who were not married; percentages were fairly similar for children of immigrant and nonimmigrant mothers. Discrepancies in level of maternal education for children of immigrant and nonimmigrant mothers were apparent. Children of immigrants were much more likely to have a mother with less than a high school degree (40.9 percent compared with 4.8 percent), whereas children of U.S.-born mothers were much more likely to have a college degree or higher (35.2 percent compared with 15.5 percent). The majority of children with U.S.-born mothers fell into the working full-time category (46.9 percent), whereas the majority of children with immigrant mothers fell into the not working category (39.4 percent). Income quartiles had a similar pattern with half of children with immigrant mothers (50.4 percent) in the lowest quartile and the largest percentage of children with U.S.-born mothers in the fourth quartile (36.2 percent). The majority of children of immigrant mothers were of Hispanic ethnicity (78.9 percent) as compared with the majority of children of U.S.-born mothers who were in the non-Hispanic white category (66.4 percent). With

Table 1: Descriptive Statist	tics of Child and Family Characteristics, by Immigrant Status					
Variable	All Children %	Children of Immigrant Mothers %	Children of U.SBorn Mothers %			
Child of immigrant mother	14.1	_	_			
Marital status (% mothers not married)	23.5	22.3	23.7			
Maternal education						
Less than high school	13.4	40.9	4.8			
Graduated high school	24.1	30.5	27.1			
Some college	30.1	13.1	32.9			
Graduated college or more	32.4	15.5	35.1			
Maternal work status						
Not working	26.4	39.4	24.3			
Looking for work	4.7	10.0	3.8			
Working full-time	45.1	33.9	46.9			
Working part-time	23.9	16.6	25.0			
Income quartile for household						
Lowest quartile	22.0	50.4	17.3			
Second quartile	23.5	28.1	22.7			
Third quartile	22.0	10.9	23.8			
Fourth quartile	32.5	10.0	36.2			
Child's grade in school						
Kindergarten	4.0	2.9	4.2			
First grade	12.7	13.2	12.7			
Second grade	12.1	14.4	11.7			
Third grade	12.4	13.1	12.1			
Fourth grade	13.7	11.4	14.1			
Fifth grade	13.3	12.1	13.4			
Sixth grade	19.1	18.8	19.1			
Seventh grade	12.6	12.2	12.7			
Child's race/ethnicity			,			
Non-Hispanic white	57.8	5.7	66.4			
Non-Hispanic black	11.6	2.7	13.0			
Hispanic	21.8	78.9	12.4			
American Indian	3.1	1.9	3.3			
Asian	2.9	10.1	1.7			
Other	2.9	0.7	3.2			
Child's current academic performance	2.)	3.7	5.2			
Excellent	46.0	40.3	46.9			
Above average	33.5	36.5	33.0			
Average or below average	20.5	23.3	20.1			
After-school program	20.7	25.5	20.1			
Yes	54.1	22.9	59.2			
No	45.9	77.1	40.8			

respect to the child's current academic performance, similarities between children of immigrant and U. S.-born mothers existed. Most mothers reported that their children were doing well. Over 40 percent of children of immigrant and U.S.-born mothers were in the excellent category, approximately one-third of immigrant and nonimmigrant children were in the above average category, and approximately 20 percent of immigrant and nonimmigrant children

were in the average or below average category. Children of immigrant mothers were far less likely to be enrolled in an after-school program than were children of U.S.-born mothers (22.9 percent compared with 59.2 percent).

How did each type of after-school programming vary by immigrant status? The cross-tabulations reported in Table 2 show that, as expected, levels of participation were lower for children of

Table 2: Children's Type of After-School Program, by Immigrant Status								
	All Children		Children of Immigrant Mothers		Children of U.SBorn Mothers			
Type of After-School Program	Freq.	%	Freq.	%	Freq.	%		
Academic club	632	8.2	44	4.0***	588	8.9		
Arts	1,686	21.9	88	8.1***	1,598	24.2		
Clubs	480	6.2	29	2.7***	451	6.8		
Religious activities/instruction	1,856	24.1	85	7.5***	1,771	26.8		
Scouts	1,026	13.3	24	2.2***	1,002	15.2		
Sports	3,004	39.0	170	15.6***	2,834	42.9		
Volunteer	691	9.0	23	2.1***	668	10.1		
Other	73	1.0	5	.5	68	1.0		

Note: Freq. = frequency

***p < .0001.

immigrant mothers than for children of U.S.-born mothers in each category. For example, in the category with the largest number of children, children who participated in sports, levels of participation were much lower for children of immigrants than for children of natives. With regard to two other popular categories, arts and religious activities, children of immigrant children were far less likely to participate in each activity than were children of U.S.-born mothers.

Regression Models

Logit results on the effects of immigrant status and the child and family characteristics on enrollment in any after-school programming are presented in Table 3. I used regression analyses to understand the influence of immigration status and the other covariates on whether or not a child is in any after-school programming. Model 1 shows the main effect of immigration status only. As expected, children of immigrant mothers were far less likely (odds ratio of 0.20) to participate in after-school programming than were children of native-born mothers.

When child and family characteristics were incorporated into the model (model 2), immigrant children, as compared with native-born children, remained less likely to be enrolled in after-school programming; however, the odds ratio increases from 0.20 in model 1 to 0.46 in model 2. This indicates that some of the lower use of after-school programming was due to differences in child and family characteristics. Non-Hispanic black children were less likely (odds ratio of 0.52) to be enrolled in after-school programming than were non-Hispanic white children. The other ethnic

categories indicated a lower likelihood of enrollment as well, each as compared with non-Hispanic white children; however, only the racial and ethnic categories of Hispanic and Asian were statistically significant. A child's grade in school was statistically significant with an odds ratio of 1.08. This suggests that as a school-age child gets older, he or she is more likely to be in after-school programming. Income was statistically significantly associated with after-school programming, with the highest likelihood of enrolling resulting in the highest quartile of income category. In terms of maternal education, all three categories had a statistically significant result. In particular, children of mothers who graduated college or more (the highest education category) were far more likely (odds ratio of 4.22) to enroll in after-school programming than were children of mothers with less than a high school education. Children of mothers who were looking for work (odds ratio of 0.63) had a lower likelihood of enrolling in after-school programming than children of mothers who did not work. Finally, each category of children's current academic performance (above average, average, below average) was statistically significant compared with the reference category of excellent. Specifically, children whose grades were lower than the reference category were less likely to participate in after-school programming.

Results from regression analyses with interaction terms for the various child and family characteristics by mother's immigrant status are presented in model 3 (see Table 3). This was done in an effort to assess whether being an immigrant had differential effects on the use of after-school programming across the

Table 3: Logit Estimates on the Effects of Immigrant Status and Child and Family Characteristics on Enrollment in Any After-School Program (N = 7,694)

Predictor Variable	Model 1 OR (SE)	Model 2 OR (SE)	Model 3 OR (SE)
Child of immigrant mother	0.20 (.08)**	0.46 (.10)**	0.48 (.38)
Maternal marital status		0.92 (.07)	0.94 (.07)
Child's race/ethnicity (non-Hispanic white)			
Non-Hispanic black		0.52 (.08)**	0.51 (.09)**
Hispanic		0.72 (.08)**	0.74 (.08)**
Asian		0.60 (.16)**	0.51 (.20)**
American Indian		0.86 (.15)	0.80 (.15)
Other		0.86 (.15)	0.86 (.15)
Child's grade in school		1.08 (.01)**	1.08 (.01)**
Income (quartile one)			
Quartile two		1.33 (.08)**	1.40 (.09)**
Quartile three		1.84 (.09)**	1.88 (.10)**
Quartile four		2.55 (.09)**	2.59 (.10)**
Maternal education (less than high school)			
Graduate high school		1.67 (.10)**	1.71 (.12)**
Some college		2.43 (.10)**	2.52 (.12)**
Graduated college or more		4.22 (.11)**	4.36 (.12)**
Maternal work status (not working)			
Working full time		0.88 (.07)*	0.87 (.07)
Working part time		1.08 (.07)	1.07 (.08)
Looking for work		0.63 (.14)**	0.61 (.15)**
Child's current academic performance (excellent)			
Above average		0.88 (.06)*	0.86 (.06)*
Average to below		0.63 (07)**	0.60 (.07)**
Child of immigrant mother × maternal marital status			0.76 (.23)
Child's race/ethnicity (non-Hispanic white)			
Child of immigrant mother × non-Hispanic black			0.26 (.51)
Child of immigrant mother × Hispanic			0.77 (.32)
Child of immigrant mother × Asian			0.33 (.41)
Child of immigrant mother × American Indian			1.38 (.73)
Child of immigrant mother × other			1.04 (.84)
Child of immigrant mother × child's grade in school			1.06 (.04)
Child of immigrant mother × income quartile two			1.94 (.22)
Child of immigrant mother × income quartile three			2.04 (.27)
Child of immigrant mother × income quartile four			2.18 (.28)
Maternal education (less than high school)			
Child of immigrant mother × graduated high school			1.86 (.24)
Child of immigrant mother × some college			3.24 (.27)
Child of immigrant mother × graduated college			5.78 (.28)
Maternal employment (not working)			
Child of immigrant mother × working full time			0.87 (.20)
Child of immigrant mother × working part time			1.01 (.24)
Child of immigrant mother × looking for work			0.57 (.35)
Child's current academic performance (excellent)			
Child of immigrant mother × above average grade			0.72 (.19)
Child of immigrant mother × average to below grade			0.40 (.23)

Notes: OR = odds ratio. Model 1: immigration status only. Model 2: Adds child and family characteristics. Model 3: Adds interactions between immigration status and child and family

child and family characteristics. Although most of the child and family characteristics remained significant in this model, none of the interaction terms were statistically significant. For example, income remained highly and positively statistically significant, indicating that whether a child has an immigrant mother or not, his or her household income remains a significant factor in whether he or she will participate in after-school programming, and the higher the income, the more likely that child will participate. However, when income is interacted with immigrant status, results suggest that having more income has about the same association with enrollment in after-school programming for children of immigrant mothers as it does for children of U.S.-born mothers. As none of the interaction terms were statistically significant in model 3, the importance of being an immigrant did not vary according to the child and family characteristics tested.

DISCUSSION

The purpose of this study was to examine the effect of child and family characteristics on the use of after-school programming for a fast-growing segment of the U.S. student population. Although quality after-school programming has been shown to be beneficial to children and youths (Smolensky & Gootman, 2003), the literature dedicated to immigrant children is limited. This causes concern for two important reasons: (1) The school-age immigrant population continues to grow (Hernandez et al., 2009; Suárez-Orozco et al., 2008), and (2) academic outcomes for this population warrant attention. These demographic realities pose both opportunity and challenge for policies and programs capable of assuring that these children reach their potential as adults (Hernandez et al., 2009).

Results from regression analyses in model 2 (see Table 3) indicate that most of the child and family characteristics tested were strongly associated with enrollment in after-school programming. Specifically, having an immigrant mother was still associated with a lower likelihood of enrolling in after-school programming as compared with having a native-born mother. Likewise, being non-Hispanic black, Hispanic, Asian, and American Indian, each as compared with being non-Hispanic white, was associated with a lower likelihood of enrolling in an after-school program. A child's grade in school predicted a greater likelihood of

enrolling, indicating that the older a school-age child becomes, the more likely he or she will participate in after-school programming. As expected, maternal education and income both predicted a greater likelihood of enrollment, with the greatest odds for the higher levels of maternal education and income. This suggests that affordability and knowledge of the benefits of quality after-school programming can affect the decision to enroll one's child. With respect to the child's current academic performance, the categories of above average, average, and below average each predicted a lower likelihood of participating as compared with the reference category of excellent. This indicates that those children who perform better academically are more likely to be enrolled in after-school programming. This is not surprising in light of the literature on the positive effects of quality afterschool programming on academic achievement (Cooper et al., 1999; Marsh & Kleitman, 2002; Smolensky & Gootman, 2003).

In model 3 (see Table 3), interaction terms for the child of immigrant indicator by each independent variable were introduced in an effort to determine whether the effects found for children of immigrant mothers compared with children of native-born mothers varied according to the presence or absence of various child and family characteristics. As none of the interaction terms were significant, results suggest that this was not the case. The importance of mother's immigrant status did not vary according to ethnicity, household income, and so forth. Thus, the best estimate of the impact of mother's immigrant status is that presented in model 2, which indicates that children of immigrant mothers are less likely to participate in after-school programming than those of nativeborn mothers.

Some limitations should be noted. The data used are limited in that they do not include a variable that directly asks whether the child or the child's mother is an immigrant. However, using only those mothers who were born out of the country and spoke a language other than English at home served as a strong proxy. Future research might consider other characteristics, such as generational status. The data set is also limited with respect to the measure of the child's academic performance. A parent or guardian's self-report of how their child is doing academically is far less objective than the use of standardized test scores or

grades provided by a teacher, both unavailable in this data set (Cooper et al., 1999). Furthermore, the use of standardized tests, more so than grades, allows for the comparison of academic achievement from a variety of educational settings (Glick & White, 2003).

Overall, this study showed that children of immigrants are less likely than children of nonimmigrants to participate in after-school programming. Furthermore, characteristics such as higher income and maternal education predict a high likelihood of participation for all children. These conclusions have important implications for practice and policy. Although future research might focus on the barriers immigrant parents face, practices and policies that address access and affordability of quality after-school programming will help increase all school-age children's enrollment.

Given that some immigrant children experience worse academic outcomes (Kao & Tienda, 1995) and often have lower levels of English language proficiency (Hernandez, 2004), increasing their enrollment in after-school programming is one way to enhance their educational experience. As suggested by Suárez-Orozco et al. (2008), partnerships between after-school programs and community organizations, schools, and churches may be particularly beneficial for immigrant children. School social workers and educational professionals can help facilitate immigrant children's later academic success by focusing such outreach efforts on immigrant families with children. This is particularly important in light of recent research findings on the academic trajectories of immigrant children (Glick & White, 2003). Policy efforts aimed at increasing the quality and the accessibility of afterschool programs will likely benefit all school-age children, but particularly those children of immigrant families currently underserved. CS

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