

**Persistent Participation: Differences in Race, Ethnicity, and Nativity in Ongoing
Involvement in Music and Athletics**

Elizabeth Raleigh
Department of Sociology
University of Pennsylvania
3718 Locust Walk
Philadelphia, PA 19104

eraleigh@sas.upenn.edu

Persistent Participation: Differences in Race, Ethnicity, and Nativity in Ongoing Involvement in Music and Athletics*

Elizabeth Raleigh

Abstract

This paper analyzes racial, ethnic, and nativity differences in children's participation in extracurricular activities and their link to academic achievement. Using data from three waves of the Early Childhood Longitudinal Study, I show that there are clear differences by race, ethnicity and nativity in levels of ongoing participation in music and organized athletics between the first and fifth grades. Differing levels of participation are especially apparent in athletics. Compared to their native White counterparts, Black, Hispanic and Asian children have lower odds of participating in athletics across these years. In addition, immigrant Black and immigrant Asian children have higher odds of participating in music lessons net of social class background. These differing levels of participation in activities are important because findings show that ongoing participation in music and athletics are positively associated with academic performance.

*Paper submitted to the 2008 Annual Meetings of the Population Association of America

Introduction

Prior research suggests that out-of-school time is a critical factor in children's educational development. In fact, school time has been shown to be a great equalizer as findings indicate that disparities in learning rates grow faster in the summer than during the school year (Downey et al. 2004; Alexander et al. 2007). Results from these studies clearly delineate how time spent outside of school hours is a crucial factor in children's development and academic achievement that deserves greater attention.

The potential role that out-of-school time may play in children's educational trajectories becomes even more pronounced when considering the relatively small amount of time children actually spend in school. The average school day for American public school students is 5.6 hours and on average children spend about 178 days in school (National Center for Education Statistics 1990). Thus, when taking into account after-school time, weekends, and summer months, American children spend a remarkably small percent of their time in school.

While there has been some research on how very young children spend their time and on the after-school and summer activities of middle school students (Hart and Risley 1995; Lareau 2003; Chin and Phillips 2004), less research exists on how elementary school-age children spend their time out of school (for exceptions see Lareau 2000; Domina 2005). The elementary school years are especially important for understanding the roots of disparities in academic performance because evidence suggests that children's academic performance after the third grade is largely based on the previous years' achievement (Entwisle et al. 1986; Alexander et al. 1994; Alexander et al. 1997). In addition, the elementary school period is unique because children have more

unstructured after-school time since they do not have nearly the same amount of homework as those in higher grades (Hofferth and Sandberg 2001). Also, for elementary school-age children, it is likely that children's levels of participation reflect parents' own resources and capital. As children age, they become the "wildcard" in social reproduction because they develop greater levels of autonomy which has been shown to greatly influence how they fill their out-of-school time (Chin and Phillips 2004).

This paper addresses one key aspect of out-of-school time – organized activities. Prior research suggests that participation in extracurricular activities provides cultural capital related to students' achievement (Bourdieu and Passeron 1977; Dimaggio 1982; Lareau 2003). Qualitative researchers have helped to identify some of the mechanisms through which participation in activities creates capital contributing to the reproduction of social advantage. Lareau argues that middle class parents, regardless of racial or ethnic background, adopt the strategy of 'cultivating' their children through participation in organized activities, providing them with opportunities to interact with adults as coaches and mentors, the experience of being a member of a team, and lessons on how to structure their time (2003).

While Lareau's research is valuable in exploring and identifying the social processes that translate activity participation into educational and social advantages, her findings are necessarily limited because she only looks at a small number of families and does not include any Hispanic or Asian children in the study.

But considering that almost one in five school children are either immigrants or children of immigrants (Zhou 1997) and many of these children are members of the growing population of Hispanics and Asians, it is imperative to investigate how race,

ethnicity, and immigrant generation are related to the causes and consequences of participation in extracurricular activities. Quantitative studies that are able to leverage data based on large nationally representative samples that include native- and foreign-born families of different racial and ethnic backgrounds are well suited to further analyze these relationships. They also have the potential to provide a broad overview of the ways in which race, ethnicity, and nativity help to shape parents' childrearing strategies in structuring their young children's out of school time. However, extant quantitative studies on the effects of activity participation among elementary school children are limited and most studies have only looked at levels of participation at one point in time (Dumais 2006). This is an area where there is a clear need for further research.

This study contributes to the literature on the relationship between children's out-of-school time and educational achievement by providing an overview of how race, ethnicity, as well as nativity are linked to the ways in which parents structure their children's extracurricular activities. Based on data from a longitudinal nationally representative study of elementary school students and their families, I show that participation in organized activities is positively related to academic achievement and that the academic benefits associated with it are the strongest among children with persistent participation. Whereas other researchers have argued that social class is the deciding factor in determining cultural logics of childrearing (Lareau 2003), this paper provides further support that there are clear differences by race, ethnicity, and nativity in the participation of music and athletics that exist net of social class.

Background

Prior studies show clear race and ethnic differences in how children spend their time (Cooper 1990; Hofferth and Sandberg 2001; Larson et al. 2001). Hofferth and Sandberg's analysis of data from parental time diaries of their children's activities finds that race and ethnicity are associated with activity involvement independent of social class (2001). They find that, on average, Asian children spend more time on after-school educational activities, Black children spend more time in church activities and Hispanic children devote more time to family activities such as preparing meals with their parents and other household work (ibid). In a study comparing time usage between adolescent working class African Americans in urban Chicago and that of White suburban counterparts, Larson et al. find that urban African American adolescents spend more time on leisure activities while the suburban White students spend more time on "productive" behaviors such as school work and extracurricular activities (2001:16).

If all activities had an equal influence on academic achievement, the kinds of activities that filled children's out-of-school time schedules would be inconsequential. However, there is a clear hierarchy of academic benefits realized from some forms of involvement over others (McNeal 1995; Eccles and Barber 1999; Broh 2002). In three separate studies using different sources of data, there is evidence of the positive relationship between music and athletics and academic achievement. Analyzing data from *High School and Beyond*, McNeal finds that participation in athletics and fine arts (such as music) had an independent effect on reducing dropout rates (1995). Eccles and Barber examine benefits and risks associated with different activities among Michigan high school students, finding that participation in high school sports and performing arts are associated with positive academic trajectories (1999). In another study based on data

from the National Education Longitudinal Study, Broh analyzes the effects of participation across a range of extracurricular activities, concluding that tenth and twelfth grade participation in interscholastic sports and school music groups are positively associated with improved senior year performance but other activities (such as vocational clubs and cheerleading) had either mixed results or no observable effects (1999).

The results from this research clearly indicate that participation in music and athletics stand out as activities that are positively related with educational achievement. In addition, other research examining the relationship between athletics and achievement reaches similar conclusions (Otto and Alwin 1977; Landers and Landers 1978; Marsh 1993). However, these studies do not differentiate whether extracurricular involvement in sports or music has a similar impact on academic performance across race, ethnicity or immigrant generation.

Racial and ethnic differences in participation in athletics and music

Prior research has found that Asian students have greater levels of participation in music lessons and educational activities than White students, and that these high levels of involvement are motivated in part by cultural values (Schneider and Lee 1990; Kao 1995). Schneider and Lee's field study comparing the school and home environments of East Asian and White middle school students identifies the role that music lessons may contribute to Asians' educational success (1990). They argue that Asian children are more likely than White children to take music lessons and among students who do take music lessons, Asian students devote more hours of practice to their instruments each week. From these results, Schneider and Lee concluded that Asian parents try to help

their children succeed by carefully structuring out-of-school time so that it is directed towards activities that foster educational advancement.

Roscigno and Ainsworth-Darnell examine the relationship between race and participation in organized activities on grade performance (1999). However, in this study, the authors do not differentiate between the types of activities, aggregating dance, music, and art under the umbrella of ‘cultural classes.’ They find that participation in cultural classes is associated with grade performance independent of race and ethnicity. Because Roscigno and Ainsworth-Darnell do not separate out music – the one cultural activity that has been consistently shown to be associated with high grade performance – from art and dance classes, it is possible that the relationship for music participation is muted. This provides the opportunity for future research to further explore the relationship between music lessons, academic achievement, and race.

In line with the hypothesis that participation in extracurricular activities may have varied effects for participants according to race and ethnicity, Eitle and Eitle investigate whether there are racial differences in involvement in specific sports and if the participation in these sports is positively or negatively associated with academic achievement for Black and White males (2002). They find that participation in interscholastic football and basketball is negatively associated with academic achievement for males, regardless of the race of the student involved. However, since Black male students are much more likely to be involved in interscholastic basketball and football, as a group, their grades are affected disproportionately compared to White students. While Eitle and Eitle’s conclusions suggest that there is an interaction between race and sports participation in secondary school, we do not know whether these patterns

hold true during the elementary school years. In addition, we know even less about the relationship between athletics and academic achievement for immigrants and children of immigrants. In the following section, I review the literature in this area.

Out-of-School Time for Immigrant Children

The passage of the 1965 Immigration Reform Act which lifted the sanction on Asian immigrants and loosened restrictions for other immigrants had a profound impact on the racial and ethnic composition of the United States population (Alba and Nee 2003; Rumbaut and Portes 2006). Estimates from the 2000 United States Census report that over one and ten in the population is foreign born and one out of five school-age children are immigrants or children of immigrants (Zhou 1997).

Research indicates that when analyzing educational performance, it is important to differentiate between immigrant and native families for several reasons. Children from immigrant families, whether their families emigrated from Asia, Latin America, or Europe, receive significantly higher grades than their native White counterparts than their social class backgrounds would predict (Fuligni 1997). Research on Black immigrants from the West Indies finds similar patterns regarding parents' emphasis on educational success (Waters 1999). One reason for immigrant students' strong academic performance has been attributed to the fact that foreign-born parents have higher educational aspirations and expectations compared to native born parents (Kao 1995; Kao and Tienda 1995; Hao and Bonstead-Bruns 1998). Moreover, research indicates that, coupled with high educational expectations, immigrant parents are also more likely to impose restrictions on their children to increase study time, such as limiting going out

with friends and watching television (Kao and Tienda 1995). In addition, other research finds that within some immigrant communities there is such a high value on education that it has spurred the development of a cottage industry of supplementary academic ‘cram’ schools for Asian American youth (Zhou and Kim 2006).

While much of the literature on immigrant families’ attitudes and behavior largely focuses on educational aspirations and institutions that increase study time, fewer studies take into account the relationship between extracurricular involvement and academic achievement. Examining the role of arts and directed activities on educational performance, Lee and Kao find that second generation Black, Hispanic, and Asian children are particularly disadvantaged compared to native born White children when it comes to participating in directed activities and that participation in these activities have a positive influence on achievement (2007). However, because this study only measured levels of participation at one point in time, we do not know if these racial and ethnic differences persist when examining ongoing involvement.

Thus, there are three main gaps in the literature on the relationship between out-of-school-time and educational achievement. First, researchers must look at participation from a longitudinal perspective to differentiate those who have done the activity at one time versus children (and parents) who are more committed to sustained participation. Second, it is crucial to improve our understanding of the relationship between out-of-school activities and educational achievement in elementary school as prior research has shown that these years have lasting effects (Entwisle and Hayduk 1988; Alexander et al. 1997). Third, based on the substantial increases in immigration post-1965 there is a vast need for more research on how race, ethnicity, and immigrant generation influence

involvement in extracurricular activities. With a focus on music and athletics, two types of activities that have been shown to be strongly connected to academic achievement, this paper addresses these gaps in the literature with an analysis of the causes and consequences of extracurricular involvement.

Data and Measures

This paper is based on data from the Early Childhood Longitudinal Study Kindergarten Cohort (ECLS-K). ECLS-K is panel study based on a nationally representative sample of kindergarteners enrolled in public, private and parochial schools in the United States and includes data from students, their families and teachers¹. This study is well suited to explore the causes and consequences of children's ongoing involvement in extracurricular activities for two reasons. First, ECLS-K provides a window into the intersections of family and schools for one of the youngest cohorts of children studied to date. Whereas other studies have examined the adolescent population, ECLS-K provides a benchmark of how childrearing is related to educational outcomes from students' earliest contact with the school system. Second, the study includes oversamples of minority and immigrant children, allowing comparisons across race, ethnicity, and immigrant generation.

The study is based on three waves of data collection. The first wave of this analysis is based on data collected in the spring of 2000, when the students were in the first grade and includes data on levels of children's participation in music and athletics. The second wave of analysis stems from parent interviews and children's test scores taken in the spring of 2002 when the vast majority of the children were in the third grade,

¹ For more information, please see <http://nces.ed.gov/ecls/kindergarten.asp>.

although some had been retained and were still in the second grade². Lastly, in order to investigate the ongoing relationships between participation in music and athletics and academic performance, the third wave of analysis is based on data collected in the spring of 2004, when most of the children were in the fifth grade. Data from these waves include parents' reports of their children's extracurricular involvement, family background variables, and results from standardized reading and math scores³.

Analyses of racial and ethnic differences are conducted across four broad categories – White, Black, Asian and Hispanic⁴. In addition to an analysis of racial and ethnic differences, I also examine effects across immigrant generation. While I am cognizant of the heterogeneity within these broad racial and ethnic groups (Blair and Qian 1986; Portes and Rumbaut 1990; Portes and Zhou 1993; Borhan et al. 2006), simultaneously examining ethnic and immigrant differences would not be possible given sample size limitations. I refer to native children as those whose mothers were born in the United States and immigrant children as those whose mothers were born outside of the United States⁵. I use the mother as the identifier to characterize immigrant status because prior research has noted that the nativity of the mother decisively influences educational achievement (Rumbaut 1994; Kao and Tienda 1995). Of note, because all of the children in the study are so young at the beginning of the study, I do not differentiate between children of immigrants and children who were born outside of the United States

² There were 1,288 children in the sample who had been retained a grade level and 29 who had been held back more than one grade level. Fifty students had skipped one grade and one student had skipped two grades.

³ In order to compare across years, I used the item response theory (IRT) test scores (variables c4r3rscl and c4r3mscl).

⁴ Due to small sample sizes, I decide exclude from the sample the small number of Native Hawaiians and other Pacific Islanders, American Indians and Alaskan Natives, and non-Hispanic children who were more than one race.

⁵ Mother's nativity is not necessarily reflective of child's nativity.

(see Zhou and Bankston 1998 for a similar approach). Combining the child's race with the immigration status of the mother created a total of eight different groups.

Because prior research has found that the benefits associated with participation vary according to the activity type (Eccles and Barber 1999; Broh 2002; Dumais 2006), throughout my analyses, I differentiate between the types of activities in which children take part. I focus on music and athletics because previous research suggests that they are the two types of activities that have the strongest and most consistent link to academic performance (McNeal 1995; Eccles and Barber 1999; Broh 2001). Music lessons and organized athletics are also two types of activities that may potentially be sponsored by a variety of institutions. Because I am especially interested in understanding how race, ethnicity, and nativity shape children's out-of-school time opportunities, I focus on activities that could be offered by a wide range of organizations such as churches, after-school programs, or community centers.

By examining levels of children's involvement in the first, third, and fifth grades, it is possible to explore how persistent participation in music and athletics is associated with academic performance, instead of just examining levels of participation at one point in time. In the spring of 2000, when the sampled children were in the first grade, parents were asked if their child had ever participated in "music lessons for example piano, instrumental music, or singing lessons," or "organized athletic activities like basketball, soccer, baseball or gymnastics" outside of school (Tourangeau et al. 2005). Parents were then interviewed in 2002 and 2004 (when most of the children were in the third and fifth grades, respectively) and were asked to report on their children's involvement in out-of-school activities. Based on these questions, I created measures of persistent participation

in music and athletics between the first and third grades and between the third and fifth grades.

Data limitations prevent me from examining the frequency of participation in each activity. The measure of ongoing participation used in this study captures whether children ever participated in an activity before the spring of the first grade, those who participated between the second and third grades, and those who took part in an activity between the fourth and fifth grades. Although these estimations are an improvement on prior research that has only considered if children had ever at all participated in the activity at one point in time, there may still be a good deal of variation within this measure.

Beyond examining how race, ethnicity, and nativity predict ongoing participation in extracurricular activities, I also analyze how differing levels of participation are associated with educational outcomes. Specifically, I examine the relationship(s) between ongoing participation (such as between the first and third grades, or between the third and fifth grades) and standardized reading and math scores.

In addition to key variables of interest, i.e. levels of participation in music and athletics, I also include several controls for family background such as mother's education, income, and family structure, which have been well-documented in the literature to be associated with academic performance (Coleman 1966; Sewell and Shah 1968; see Corcoran 1995 for review). Furthermore, I control for the dilution of resources such as time and money across families with more children (Blake 1981; Steelman et al. 1989; Downey 1995) by including a control for the number of siblings in the household. Finally, drawing on the literature that documents the effects of gender on the school

experiences of young children (e.g. Eccles et al. 1993), I include a control for the sex of the child.

Control variables were measured throughout multiple waves of the study as aspects of family background (such as number of siblings and family income) may vary from one wave of data collection to the next. Thus, multivariate analyses examining the relationship between ongoing participation between the third and fifth grades and academic performance include control variables also drawn from the third grade.

Due to the multi-frame sampling structure, in the following tables, I present weighted results.

Results

Descriptive Statistics

Table 1 illustrates the variation in participation in music and athletics across race, ethnicity, and immigrant generation. As shown in Table 1, between the first and third grades, the vast majority of children have not been exposed to music lessons at all. In fact, regardless of race, ethnicity, or nativity, more than half of the children have not had music lessons between these two time periods. By far, Asian immigrants have the highest rates of ongoing participation in music lessons, with seventeen percent of Asian immigrant children participating in music lessons across the first and third grades. This number is almost triple that of native Whites (6%). Native Asian children and immigrant White children also have higher rates of ongoing participation in music compared to native Whites. In contrast, Hispanic children, regardless of immigrant background, have

extremely low levels of ongoing participation in music (3%). Native Black students have similarly low levels of participation in ongoing music lessons (3%).

[Table 1 about here]

In comparison to participation in music, between the first and third grades children are much more likely to be involved in organized athletics. However, rates of participation greatly vary. White children, regardless of nativity, have by far the highest percentage of ongoing participation in organized athletics across the first and third grades, with more than half (55%) of all students participating across the two time periods. This figure is much higher than any other group. Native Asian and native Hispanic children also have relatively high levels of ongoing participation (37% and 36%, respectively). With the exception of Whites, immigrant children have lower levels of involvement in organized athletics. These rates of participation are especially low for immigrant Hispanic children, with only fourteen percent of children reporting ongoing participation between grades one and three. This rate of persistent participation is more than three times lower than rates of maintained participation in organized athletics for native Whites (55% vs. 14%).

Between the third and fifth grades, differences in rates of participation between groups follow a similar pattern. For music, immigrant Asian children continue to have the highest levels of ongoing participation. While for athletics, White children (regardless of nativity), are the most likely to maintain participation across these two time periods.

Of note, the rates of ongoing participation are slightly higher between the third and fifth grades, than between the first and third grades. Part of this elevation could be due to sample attrition. As the study continued through each successive wave, it is

possible that families who were the least likely to enroll their children in ongoing extracurricular events were the most likely to leave the study. Subsequently, this could partially bias these results. However, in order to correct for the potential biases of the study due to missing data, all of the analyses have been weighted.

As shown in Table 1, there are also clear differences in academic performance by race, ethnicity, and nativity. As early as the third grade there is evidence of the growing gap in reading and math scores between White students and other minority groups. In both the third and fifth grades, Black and Hispanic students consistently earn lower test scores than native White students in reading and math. However, there is variation between immigrants and natives, with Black immigrant students earning higher scores than native Black students while the opposite is true for immigrant Hispanics who, on average, have lower scores than native Hispanic children. In reading and math, on average, Asian students have similar scores to native Whites.

Of course, observed differences in academic performance and rates of ongoing participation in extracurricular activities are partially the result of differences in family background and socioeconomic status which are not controlled for in bivariate statistics. As illustrated in the bottom of Table 1, there are stark differences in socioeconomic status by race, ethnicity, and nativity. In terms of mother's years of education, on average, Black and Hispanic children have mothers with lower levels of completed education than those of native Whites. Mothers of native Asian children tend to have higher levels of education compared to native Whites.

Similar patterns exist when comparing household income across race, ethnicity, and nativity. Half of native White children live in households with incomes of less than

\$50,000 (17%+33%). However, more than nine out of ten (93%) of immigrant Hispanic children and eighty-eight percent of native Black children are raised in households earning less than \$50,000. Immigrant Asian children are also more likely to live in households with less than \$50,000 incomes.

Since a key research question of this paper is whether or not differences by race, ethnicity, and nativity remain in the levels of children's participation in activities net of social class, I include two additional measures of mother's employment. These measures include measures of whether the mother is employed and if the mother's work schedule makes it difficult for her to attend school activities. Beyond household income, these two variables provide additional information about the extent of families' human and economic capital that may facilitate or inhibit children's ongoing participation in music and athletics.

Lastly, I also control for family structure, the child's gender, and the number of siblings in multivariate analyses. Regarding family structure, White children (regardless of nativity) and immigrant Asian children are the most likely to live in households with both biological parents (72% and 88% respectively), whereas almost half (49%) of native Black children reside in households with their biological mother only. Compared to native White children, on average, immigrant children have more siblings. Native Black children are also more likely to have more siblings in the household.

Multivariate Models

In the following analyses, I examine the predictors of ongoing involvement in music and athletics and the relationship between this involvement and academic performance.

Predicting Sustained Participation in Activities 1st – 3rd Grades

Music Lessons

Using logistic regression, I analyze differences in race, ethnicity, and nativity in the odds that a child will have participated in ongoing music lessons across the first and third grades. Results are given both as log-odds and as odds-ratios. As shown in Table 2, Model 1, there are significant differences according to race, ethnicity, and nativity in ongoing extracurricular involvement. However, as detailed in Model 2, many of these differences are accounted for once family background is included in the model. But significant differences still remain for immigrant Black, native Hispanic and immigrant Asian children. Even with the additional control variables, native Hispanic children have a fifty-two percent reduction in the odds of having participated in music across these two time periods.

[Table 2 about here]

On the other hand, results indicate that some groups have higher odds of participating in music lessons once SES and family structure is taken into account. Specifically, immigrant Black and immigrant Asian children have about three times the odds of taking music lessons between the first and third grades compared to their native White counterparts.

In addition to difference by race, ethnicity, and nativity, socioeconomic status and family structure are also linked to children's participation. There is a positive relationship

between mother's education and household income and the odds of participating in ongoing music lessons. Additionally, children living with their biological mothers and fathers have higher odds of participating in music lessons compared to children living with single mothers or children in step-parent households.

Athletics

As shown in Models 1 and 2, compared to White children, all other racial and ethnic groups, regardless of immigrant generation have lower odds of participating in organized athletics between the first and third grades. Across the board, immigrant children have lower odds of involvement in athletics than their native counterparts. Furthermore, these differences remain even when control variables are taken into account. For example, native Asian children have more than eighty percent reduced odds of participating in athletics across the first and third grades and immigrant Hispanic children have more than sixty-percent reduced odds.

Higher levels of mother's education and household income are both positively associated with participation in athletics. Mother's employment is also positively related to ongoing participation in athletics. However, there is an important caveat. Mothers who report that their work schedules make it difficult to attend their children's school activities have lower odds of having their children participate in athletics across the first and third grades.

In sum, there are large differences between racial and ethnic groups in how children spend their time outside of school in extra-curricular activities exist. This variation is partially accounted for when socioeconomic status and family structure are considered. However, significant differences still remain independent of social class,

particularly when examining levels of involvement in athletics. If participation in organized activities did not have any relationship to academic performance, then these differences would not be as relevant. But as research has shown, participation in organized activities bestows several advantages in terms of training young children to set goals, work with adults, and sharpen time management skills (Lareau 2003). In addition, there is also evidence that participation in activities is directly and independently related to academic performance (Eccles 1999; Broh 2002; Dumais 2007). In the next section, I examine whether maintained participation between the first and third grades in music and athletics is positively related to third grade reading and math scores.

Effects of Music and Athletics on 3rd Grade Academic Performance

Results from Table 3 suggest that ongoing participation in extracurricular activities is positively related to academic performance in both reading and math. Moreover, the results indicate that persistent participation is more beneficial than periodic participation. This positive association between ongoing involvement and academic achievement is consistent across both academic subjects. Children who had music lessons between the first and third grades scored more than six points higher on reading and five points higher on math than those who those who did not have music lessons at all. In addition, those with ongoing participation in music scored higher than children who had only had music lessons at one time. There is a similar effect for going participation in athletics on reading and math scores between these two time periods.

[Table 3 about here]

Predicting Sustained Participation in Activities 3rd-5th Grades

In the following analyses, I examine predictors of children's ongoing involvement in music and athletics between the third and fifth grades. I follow the same strategy of analyses as in the previous logistic regression models and show that there are significant differences by race, ethnicity, and nativity in the odds of maintaining participation in activities between these time periods. Next I illustrate how these varying levels of participation are related to fifth grade reading and math achievement.

Music

As shown in Table 4, there are significant differences by race, ethnicity, and nativity in children's levels of ongoing involvement in music between the third and fifth grades. Many of these differences remain even when additional covariates are included in the analyses. Native Hispanic children have lower odds of having ongoing involvement in music across these two time periods compared to their native White counterparts. Yet, once socioeconomic status and family background are taken into account, immigrant Black and immigrant Asian children have significantly higher odds of having ongoing music lessons. Of note, the finding that immigrant Black and immigrant Asian children have higher odds of participating in music while native Hispanic children have lower odds compared to native Whites mirrors findings from the analyses between the first and third grades.

[Table 4 about here]

Athletics

For athletics, with the exception of native Asians and immigrant Whites, all other groups have lower odds of participating in organized athletics between the third and fifth

grades. The differences are especially stark for immigrant Hispanic children., such that compared to native Whites, immigrant Hispanic children have a forty-eight percent reduction in the odds of having sustained involvement in athletics during the elementary school years. Native Black children also have significantly lower odds (reduced by 36%) of participating in organized athletics when other covariates are held constant.

While the results suggest that immigrant Black and immigrant Asian children have significantly lower odds of participating in athletics across the third and fifth grades (reduced by 75% and 21%, respectively), it is important to note that previous analyses indicate much higher likelihoods of sustained participation in music. It may be that immigrant parents of Black and Asian children lean more towards enrolling their children in music lessons over organized athletics.

Although the effects of mother's education and household income work in the expected direction, with both being positively associated with higher likelihoods of persistent participation, mother's employment also has an impact on whether parents enroll their children in these organized activities. For both music and athletics, mothers who have work schedules that make it difficult for them to attend their children's school events have significantly lower odds of enrolling their children in organized extracurricular activities. This may be because mothers who do not have time even to attend school events also may be unlikely to encourage their children to participate in out-of-school activities because of the scheduling burden.

Effects of Music and Athletics on 5th Grade Academic Performance

As shown in Table 5, participation in music lessons and organized athletics has a clear and positive relationship with increased standardized test scores. Moreover, the extent that children participate matters a great deal. Recall that previous analyses on the relationship between participation and achievement showed that any level of participation in music or athletics was more beneficial than no participation at all. While children who participated in music and athletics between the first and third grades reaped the highest academic benefits from their participation, gains in standardized test scores were associated with any level of involvement. In contrast, findings from the third and fifth grade waves of analyses suggest a different story, especially in terms of participation in organized sports.

[Table 5 about here]

Across reading and math, there were no statistical differences in test scores between students who had participated in organized athletics in either the third or fifth grades and those who had never participated at all. However, children who had been exposed to sustained participation in organized sports scored between three and five points higher in reading and math scores than all other children, when background measures were held constant. Whereas there were clear and consistent benefits associated with ongoing participation in organized athletics, the benefits from sporadic participation are not nearly as robust, especially for children between the third and fifth grades.

In terms of ongoing music lessons, results indicate that persistent involvement in music lessons between the third and fifth grades is more beneficial than sporadic participation. This seems especially true in terms of the relationship between involvement

and math scores. Whereas there was no statistical difference in test scores between students who had music lessons in the third grade and those who did not have music at all, students who had ongoing music lessons had almost a three point advantage.

Discussion

A major finding from this research is that persistent participation in extracurricular activities is more beneficial than periodic involvement. This finding makes sense given that most of the benefits associated with extracurricular activities – such as witnessing the increased mastery of skills gained from ongoing practice or fostering relationships with adult role models – occur over time. Whether it is the discipline gained from practicing piano scales or shots from the foul line, both music and athletics are two endeavors that require time and practice in order to improve. And as shown by the results, an extended commitment to the activity over a period of time has a direct benefit on academic achievement.

However, there is a great deal of variation in the levels of ongoing participation in extracurricular activities by race, ethnicity, and nativity. Although some of these differences are reduced when family background characteristics are taken into account, clear distinctions based on race, ethnicity, and nativity remain. Notable among the findings is that native White children do not have the highest levels of participation in all activities. In terms of music lessons, Asian immigrants have higher odds of sustained participation in music compared to native White children. However, as evidenced by the very different modes of incorporation and opportunities available to different immigrant groups (Zhou and Bankston 1998; Rumbaut and Portes 2001; Alba and Nee 2003), native

and immigrant Hispanic children have much lower levels of participation compared to Asian immigrants.

Some have framed activity participation as a form of cultural capital. Originally conceptualized by Bourdieu (Bourdieu and Passeron 1977 as cited in Kingston 2001), cultural capital theory maintains that schools are biased towards the cultural orientations of the elite class and thus children who have greater levels of exposure and comfort with elite practices will be rewarded by schools and teachers. Yet, it also may be that the benefits associated with ongoing participation in music and athletics have less to do with signaling high status than teaching children how to interact with adult teachers and coaches. These activities may also provide lessons in the benefits of perseverance, or how to perform under high-pressure situations such as recitals or competitions (Lareau 2002). Kingston points out that what is often attributed to cultural capital could be a spurious association such that the effect may be a result of the fact that participation in activities stimulates children's curiosity and imagination and these benefits in turn improve achievement (2001:97). Other research has emphasized the structure, adult supervision, and parental involvement characteristic of interscholastic athletics as the foundation of the positive effects on academic performance (Broh 2002).

While my findings clearly indicate that there are differences in the opportunities to participate in ongoing music and athletics that vary by race, ethnicity, and immigrant generation and in the benefits realized from this participation, the social mechanism that translates activity participation into academic success is beyond the scope of this paper. Although the mechanism behind why persistent participation in extracurricular activities translates into higher standardized test scores is unclear, auxiliary analyses indicate that

these benefits are realized equally across race, ethnicity, and nativity. In analyses not shown, I created interaction terms between each group and regarding whether they had participated in each activity across the two time periods. Results indicated that none of the interactions were significant⁶; meaning that persistent participation in music and athletics is equally beneficial for academic performance regardless of race, ethnicity, or nativity.

Given the universal ‘boost’ realized from ongoing participation, it is important to identify factors outside of economic capital that curtail (or encourage) ongoing participation across groups. Taking into account the demands of the mother’s work schedule provides some insight into differing levels of participation, but other factors need to be identified. One question to examine is why are Black and Asian immigrant parents more likely to encourage their children to participate in music instead of sports? Untangling parental preferences for participation in specific activities (or no activities) from the structural opportunities to be involved in these activities is vital to further understanding how differences in race, ethnicity, and nativity shape children’s childhoods.

Works Cited

- Alba, Richard and Victor Nee. Remaking the American Mainstream: Assimilation and Contemporary Immigration. Cambridge: Harvard University Press, 2003.
- Alexander, Karl, Doris Entwisle, and Linda Steffel Olson. "Lasting Consequences of the Summer Learning Gap." American Sociological Review 72.2 (2007): 167-80.
- Bourdieu, Pierre, and Jean-Claude Passeron. Reproduction in Education, Society, and Culture. London: Sage, 1977.
- Broh, Beckett A. "Linking Extracurricular Programming to Academic Achievement: Who Benefits and Why?" Sociology of Education 75.1 (2002): 69-95.
- Census, United States. "The Foreign-Born Population in the United States: 2003." Ed. U.S. Department of Commerce, 2004.

⁶ Results available upon request.

- . "Profile of the Foreign-Born Population in the United States: 2000." Ed. U.S. Department of Commerce, 2001. 77.
- Cheng, Simon, and Brian Starks. "Racial Differences in the Effects of Significant Others on Students' Educational Expectations." Sociology of Education 75.4 (2002): 306-27.
- Chin, Tiffani, and Meredith Phillips. "Social Reproduction and Child-Rearing Practices: Social Class, Children's Agency, and the Summer Activity Gap." Sociology of Education 77 (2004): 185-210.
- Coleman, James S., et al. Equality of Educational Opportunity Washington, D.C.: Department of Health, Education and Welfare, 1966.
- Cooper, Ann M. "Fallacy of a Single Model for School Achievement: Considerations for Ethnicity." Sociological Perspectives 33.1 (1990): 159-84.
- Corcoran, M. "Rags to Rags: Poverty and Mobility in the United States." Annual Reviews of Sociology 21 (1995): 237-67.
- Dimaggio, Paul. "Cultural Capital and School Success." American Sociological Review 47 (1982): 189-201.
- Domina, Thurston. "Leveling the Home Advantage: Assessing the Effectiveness of Parental Involvement in Elementary School." Sociology of Education 78 (2005): 233-49.
- Downey, Douglas B., Paul T. von Hippel, and Beckett A. Broh. "Are Schools the Great Equalizer? Cognitive Inequality during the Summer Months and the School Year." American Sociological Review 69.5 (2004): 613-35.
- Downey, Douglas B, and Shana Pribesh. "When Race Matters: Teacher's Evaluations of Students' Classroom Behavior." Sociology of Education 77.4 (2004): 267-82.
- Dumais, Susan A. "Elementary School Students' Extracurricular Activities: The Effects of Participation on Achievement and Teacher's Evaluations." Sociological Spectrum 26 (2006): 117-47.
- Eccles, Jacquelynne, and Bonnie L Barber. "Student Council, Volunteering, Basketball, or Marching Band: What Kind of Extracurricular Involvement Matters?" Journal of Adolescent Research 14.1 (1999): 10-43.
- Entwisle, Doris R., et al. "The Schooling Process in First Grade: Two Samples a Decade Apart." American Educational Research Journal 23.4 (1986): 587-613.
- Fuligni, Andrew J. "The Academic Achievement of Adolescents from Immigrant Families: The Roles of Family Background, Attitudes, and Behavior." Child Development 68.2 (1997): 351-63.
- Goyette, Kimberly, and Yu Xie. "Educational Expectations of Asian American Youths: Determinants and Ethnic Differences." Sociology of Education 72.1 (1999): 22-36.
- Hao, Lingxin, and Melissa Bonstead-Bruns. "Parent-Child Differences in Educational Expectations and the Academic Achievement of Immigrant and Native Students." Sociology of Education 71 (1998): 175-98.
- Hart, Betty, and Todd R. Risley. Meaningful Differences in the Everyday Experience of Young American Children. Baltimore: Paul H. Brookes Publishing Company, 1995.
- Hofferth, Sandra L., and John F. Sandberg. "How American Children Spend Their Time." Journal of Marriage and Family 63 (2001): 295-308.

- Kao, Grace. "Asian Americans as Model Minorities? A Look at Their Academic Performance." American Journal of Education 103.2 (1995): 121-59.
- Kao, Grace, and Marta Tienda. "Optimism and Achievement: The Educational Performance of Immigrant Youth." Social Science Quarterly 76.1 (1995): 1-19.
- Kingston, Paul W. "The Unfulfilled Promise of Cultural Capital Theory." Sociology of Education. Extra Issue (2001).
- Landers, Daniel, and Donna Landers. "Socialization Via Interscholastic Athletics: It's Effects on Delinquency." Sociology of Education 51 (1978): 299-303.
- Lareau, Annette. Unequal: Race, Class, and Family Life. Berkeley: University of California Press, 2003.
- Larson, Reed, et al. "How Urban African American Adolescents Spend Their Time: Time Budgets for Locations, Activities and Companionship." American Journal of Community Psychology 29.4 (2001): 565-97.
- Lee, Elizabeth M, and Grace Kao. "Do Immigrant Children Have Less Cultural Capital? Arts and Directed Activities on Teachers' Assessment of Math and Reading Ability." Annual Meeting of the American Sociological Association. New York, NY, 2007.
- Marsh, Herbert W. "The Effects of Participation in Sports During the Last Two Years of High School." Sociology of Sport Journal 10 (1993): 18-43.
- McNeal, Ralph B. Jr. "Extracurricular Activities and High School Dropouts." Sociology of Education 68.1 (1995): 62-80.
- National Center for Education Statistics. "Indicator 24: Time in Formal Instruction." Washington, D.C., 1990.
- Otto, Luther, and Duane Alwin. "Athletics, Aspirations, and Attainments." Sociology of Education 50 (1977): 102-13.
- Portes, Alejandro, and Dag MacLeod. "Educating the Second Generation: Determinants of Academic Achievement among Children of Immigrants in the United States." Journal of Ethnic and Migration Studies 25.3 (1999): 373-96.
- Portes, Alejandro, and Ruben G. Rumbaut. Immigrant America: A Portrait. Berkeley: University of California Press, 1990.
- Portes, Alejandro, and Ruben G. Rumbaut. Immigrant America: A Portrait. Berkeley: University of California Press, 2006.
- Portes, Alejandro, and Min Zhou. "The New Second Generation: Segmented Assimilation and Its Variants." Annals of the American Academy of Political and Social Science 530 (1993): 74-96.
- Qian, Zhenchao, and Sampson Lee Blair. "Racial and Ethnic Differences in Educational Aspirations of High School Seniors." Sociological Perspectives 42.4 (1999): 605-25.
- Roscigno, Vincent J., and James W. Ainsworth-Darnell. "Race, Cultural Capital and Educational Resources: Persistent Inequalities and Achievement Returns." Sociology of Education 72 (1999): 158-78.
- Rumbaut, Ruben G. "The Crucible Within: Ethnic Identity, Self-Esteem, and Segmented Assimilation among Children of Immigrants " International Migration Review 28.4 (1994): 748-94.

- Schneider, Barbara, and Yongsook Lee. "A Model for Economic Success: The School and Home Environment of East Asian Students." Anthropology and Education Quarterly 21.4 (1990): 358-77.
- Sewell, W.H., and V.P. Shah. "Social Class, Parental Encouragement, and Educational Aspirations." American Journal of Sociology 73.3 (1968): 559-72.
- Tourangeau, Karen, et al. Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K): Third Grade Methodology Report. Washington D.C.: United States Department of Education, National Center for Education Statistics, 2005.
- Waters, Mary C. Black Identities: West Indian Immigrant Dreams and American Realities. New York: Russell Sage Foundation, 1999.
- Zhou, Min. "Growing up American: The Challenge Confronting Immigrant Children and Children of Immigrants." Annual Reviews of Sociology 23 (1997): 63-95.
- Zhou, Min, and Carl L. III Bankston. Growing up American: How Vietnamese Children Adapt to Life in the United States. New York: Russell Sage Foundation, 1998.
- Zhou, Min, and Susan S. Kim. "Community Forces, Social Capital, and Educational Achievement: The Case of Supplementary Education in the Chinese and Korean Immigrant Communities." Harvard Educational Review 76.1 (2006).

Table 1. Weighted Means of Children's Participation in Activities, Academic performance and socioeconomic variables by race, ethnicity, and nativity

	White		Black		Hispanic		Asian	
	native	immigrant	native	immigrant	native	immigrant	native	immigrant
1st-3rd Grade								
Music								
No music lessons	0.77	0.65	0.82	0.64	0.81	0.84	0.57	0.54
Music 1st grade only	0.05	0.04	0.04	0.07	0.05	0.03	0.10	0.06
Music 3rd grade only	0.13	0.22	0.10	0.20	0.11	0.10	0.25	0.24
Ongoing music 1st-3rd grade	0.06	0.09	0.03	0.09	0.03	0.03	0.08	0.17
Athletics								
No athletics	0.21	0.21	0.42	0.47	0.32	0.59	0.39	0.47
Athletics 1st grade only	0.12	0.09	0.13	0.08	0.16	0.07	0.11	0.12
Athletics 3rd grade only	0.12	0.15	0.20	0.25	0.16	0.19	0.14	0.18
Ongoing athletics 1st-3rd grade	0.55	0.55	0.25	0.21	0.36	0.14	0.37	0.21
3rd-5th Grade								
Music								
No music lessons	0.62	0.47	0.73	0.49	0.70	0.72	0.38	0.31
Music 3rd grade only	0.06	0.11	0.09	0.16	0.07	0.07	0.17	0.12
Music 5th grade only	0.19	0.22	0.13	0.17	0.17	0.15	0.21	0.16
Ongoing music 3rd-5th grade	0.13	0.19	0.05	0.17	0.06	0.05	0.23	0.31
Athletics								
No athletics	0.19	0.19	0.39	0.31	0.29	0.47	0.22	0.36
Athletics 3rd grade only	0.11	0.09	0.12	0.19	0.13	0.10	0.07	0.11
Athletics 5th grade only	0.12	0.09	0.19	0.24	0.16	0.19	0.22	0.21
Ongoing athletics 3rd-5th grade	0.59	0.62	0.30	0.26	0.43	0.24	0.50	0.32
3rd Grade Tests								
Reading 3rd grade	124.06	128.45	105.41	110.60	115.15	103.78	121.41	122.67
Math 3rd grade	97.45	100.40	79.84	85.12	90.22	82.53	93.52	98.34
5th Grade Tests								
Reading 5th grade	144.58	145.40	125.33	137.58	137.50	126.48	144.89	144.53
Math 5th grade	118.47	120.14	98.18	112.04	112.62	105.15	121.57	123.11
Family background*								
Mother's years of education	13.80	14.28	12.72	13.53	12.77	10.90	14.35	13.57
Income (\$)								
Less than 25K	0.17	0.13	0.56	0.34	0.32	0.62	0.13	0.24
25-50K	0.33	0.33	0.32	0.40	0.37	0.31	0.30	0.38
50-75K	0.23	0.19	0.08	0.18	0.17	0.04	0.19	0.17
75-100K	0.13	0.15	0.04	0.04	0.09	0.02	0.22	0.08
100K+	0.14	0.20	0.01	0.05	0.06	0.01	0.17	0.12
Family structure								
bio mother & father	0.72	0.83	0.31	0.52	0.59	0.72	0.55	0.88
bio mother & step father	0.10	0.05	0.09	0.05	0.11	0.07	0.11	0.02
Single biological mother	0.14	0.09	0.49	0.35	0.23	0.19	0.10	0.08
Other family formation	0.05	0.03	0.11	0.08	0.07	0.02	0.23	0.03
Female child	0.49	0.51	0.50	0.39	0.49	0.49	0.61	0.50
Number of siblings	1.41	1.39	1.60	1.52	1.48	1.72	1.48	1.68
Mother works outside the home								
Mother works outside the home	0.72	0.61	0.80	0.80	0.74	0.56	0.75	0.72
Work schedule makes it difficult to child's school activities	0.47	0.50	0.54	0.63	0.53	0.52	0.43	0.59
N=	7138	321	1359	151	1156	1349	128	668

* Family background characteristics

Data from the Early Childhood Longitudinal Study (ECLS-K)

Table 2. Predictors of maintained participation in extra-curricular activities from 1st to 3rd grade (logistic regression)

	Music				Athletics			
	Model 1		Model 2		Model 1		Model 2	
	<i>b</i>	<i>e</i> ^(b)	<i>b</i>	<i>e</i> ^(b)	<i>b</i>	<i>e</i> ^(b)	<i>b</i>	<i>e</i> ^(b)
Race, ethnicity, & nativity								
White native (reference group)								
white immigrant	0.38 (0.18)	1.47 †	0.17 (0.23)	1.19	0.00 (0.17)	1.00	-0.22 (0.17)	0.80
Black Native	-0.64 (0.15)	0.53 **	0.26 (0.19)	1.30	-1.33 (0.09)	0.27 ***	-0.76 (0.10)	0.47 ***
Black Immigrant	0.42 (0.37)	1.52	1.05 (0.51)	2.86 *	-1.56 (0.35)	0.21 ***	-1.43 (0.35)	0.24 ***
Hispanic Native	-0.79 (0.19)	0.45 ***	-0.74 (0.29)	0.48 **	-0.80 (0.10)	0.45 ***	-0.46 (0.12)	0.63 ***
Hispanic Immigrant	-0.78 (0.17)	0.46 **	0.37 (0.29)	1.45	-1.99 (0.11)	0.14 ***	-0.94 (0.28)	0.39 ***
Asian Native	0.25 (0.28)	1.28	0.07 (0.35)	1.07	-0.75 (0.26)	0.47 **	-1.81 (0.17)	0.16 ***
Asian Immigrant	1.15 (0.13)	3.17 ***	1.13 (0.17)	3.10 ***	-1.56 (0.18)	0.21 ***	-0.19 (0.01)	0.83 ***
SES								
Mother's years of education			0.31 (0.03)	1.36 ***			0.19 (0.03)	1.21 ***
Less than 25K (reference group)								1.00
25-50K			0.43 (0.26)	1.54 †			0.39 (0.09)	1.48 ***
50-75K			0.48 (0.29)	1.62 †			0.99 (0.10)	2.69 ***
75-100K			0.54 (0.27)	1.72 *			1.30 (0.11)	3.67 ***
100K +			1.07 (0.26)	2.92 ***			1.48 (0.12)	4.39 ***
Family Structure								
Biological mother & father (reference group)								
Biological mother & step father			-0.72 (0.34)	0.49 *			-0.35 (0.11)	0.70 ***
Single biological mother			-0.42 (0.19)	0.66 *			-0.19 (0.09)	0.83 ***
Other family formation			-0.31 (0.39)	0.73			-0.30 (0.20)	0.74 **
Female child			0.62 (0.10)	1.86 ***			-0.84 (0.06)	0.43 ***
Number of siblings			-0.09 (0.06)	0.91			-0.06 (0.03)	0.94 *
Mother works for pay			-0.26 (0.13)	0.77 †			0.19 (0.07)	1.21 **
Mother's work schedule makes it difficult to attend school events			-0.08 (0.11)	0.92			-0.26 (0.06)	0.77 ***
N=	11485		11913		12503		11914	

weighted estimates

Standard errors in parentheses

†p<0.10, *p<0.05, **p<0.01, ***p<0.001

Data from the Early Childhood Longitudinal Study (ECLS-K)

Table 3. The effect of extracurricular music and athletics on 3rd grade test scores (OLS)

	Reading			Math		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Race, ethnicity & nativity						
White Native (reference group)						
White Immigrant	4.56 *	1.65	1.69	3.27 †	0.93	0.93
	(1.97)	(1.95)	(1.96)	(1.81)	(1.85)	(1.83)
Black Native	-18.61 ***	-9.49 ***	-8.97 ***	-17.99 ***	-10.60 ***	-9.96 ***
	(1.18)	(1.11)	(1.11)	(1.02)	(0.97)	(0.97)
Black Immigrant	-12.74 ***	-10.09 **	-9.74 **	-12.57 ***	-10.68 ***	-9.95 ***
	(3.27)	(3.40)	(3.48)	(3.18)	(3.09)	(3.06)
Hispanic Native	-8.88 ***	-3.52 **	-3.26 **	-7.24 ***	-2.82 **	-2.40 **
	(1.22)	(1.12)	(1.13)	(1.00)	(0.95)	(0.96)
Hispanic Immigrant	-20.13 ***	-7.12 ***	-6.53 ***	-15.15 ***	-4.64 ***	-3.87 ***
	(1.16)	(1.19)	(1.20)	(0.93)	(1.00)	(1.03)
Asian Native	-2.49	-3.59	-3.37	-3.66	-3.62	-3.02
	(4.02)	(3.03)	(2.95)	(3.91)	(3.03)	(2.93)
Asian Immigrant	-1.37	-0.40	0.65	1.06	2.50 †	3.22 *
	(1.48)	(1.31)	(1.37)	(1.50)	1.35	(1.40)
SES						
Mother's years of education		2.58 ***	2.30 ***		2.02 ***	1.74 ***
		(0.15)	(0.15)		(0.13)	-0.13
Less than 25K (reference group)						
25-50K		6.49 ***	6.12 ***		5.39 ***	5.03 ***
		(0.96)	(0.96)		(0.80)	(0.79)
50-75K		9.79 ***	8.83 ***		8.10 ***	7.06 ***
		(1.19)	(1.20)		(0.98)	(0.98)
75-100K		10.14 ***	8.96 ***		9.88 ***	8.47 ***
		(1.27)	(1.27)		(1.08)	(1.08)
100K +		14.77 ***	12.77 ***		13.31 ***	(5.59) ***
		(1.27)	(1.28)		(1.10)	(1.53)
Family Structure						
bio mother & father (reference group)						
bio mother & step father		-2.85 *	-2.55 *		-2.71 **	-2.17 *
		(1.30)	(1.29)		(0.94)	(0.94)
Single biological mother		-2.17 *	-3.02 ***		-0.81	-0.50
		(1.00)	(0.88)		(0.85)	(0.84)
Other family formation		-4.95 **	-5.09 ***		-5.72 ***	-5.69 ***
		(1.76)	(1.40)		(1.53)	(1.53)
Female child		-3.98 ***	4.36 ***		-3.95 ***	-3.48 ***
		(0.58)	(0.59)		(0.49)	(0.52)
Number of siblings		-1.76 ***	-2.01 ***		-0.64 **	-0.56 *
		(0.26)	(0.25)		(0.22)	(0.22)
Mother works for pay		-0.97	-1.04		-0.71	-0.80
		(0.72)	(0.72)		(0.58)	(0.58)
Mother's work schedule makes it difficult to attend school events		-0.92	-0.51		-0.71	-0.23
		(0.58)	(0.58)		(0.58)	(0.51)
Participation in activities						
Music						
No music (reference group)						
1st grade only			4.37 ***			2.73 *
			(1.23)			(1.13)
3rd grade only			2.81 ***			1.73 *
			(0.81)			(0.73)
Ongoing Music lessons			6.44 ***			5.12 ***
			(1.10)			(0.92)
Athletics						
No athletics (reference group)						
1st grade only			3.56 ***			2.23 *
			(1.09)			(0.90)
3rd grade only			0.94 †			1.52 †
			(0.94)			(0.82)
Ongoing athletics			3.89 ***			4.88 ***
			(0.85)			(0.82)
Constant	123.90 ***	82.80 ***	83.33 ***	97.18 ***	66.66 ***	66.98 ***
	(0.49)	(2.31)	(2.34)	(0.41)	(1.97)	(1.99)
r ²	0.11	0.26	0.26	0.12	0.24	0.25
N=	11837	11288	10333	11882	11313	11378

Standard errors in parantheses

†p<0.10, *p<0.05, **p<0.01, ***p<0.001

Data from the Early Childhood Longitudinal Study (ECLS-K)

Table 4. Predictors of maintained participation in extra-curricular activities from 3rd to 5th grade (logistic regression)

	Music				Athletics			
	Model 1		Model 2		Model 1		Model 2	
	<i>b</i>	<i>e</i> ^(b)	<i>b</i>	<i>e</i> ^(b)	<i>b</i>	<i>e</i> ^(b)	<i>b</i>	<i>e</i> ^(b)
Race, ethnicity, & nativity								
White native (reference group)								
white immigrant	0.37 (0.26)	1.45 †	0.24 (0.25)	1.27	0.10 (0.21)	1.11	-0.09 (0.23)	0.91
Black Native	-0.97 (0.26)	0.38 **	-0.23 (0.30)	0.79	-1.04 (0.13)	0.35 ***	-0.44 (0.14)	0.64 ***
Black Immigrant	0.12 (0.44)	1.13	0.85 (0.47)	2.34 *	-1.38 (0.35)	0.25 ***	-1.41 (0.42)	0.24 ***
Hispanic Native	-0.79 (0.23)	0.45 ***	-0.38 (0.23)	0.68 **	-0.59 (0.11)	0.55 ***	-0.25 (0.11)	0.78 *
Hispanic Immigrant	-1.01 (0.20)	0.36 **	0.20 (0.22)	1.22	-1.44 (0.12)	0.24 ***	-0.66 (0.14)	0.52 ***
Asian Native	0.53 (0.32)	1.70	0.35 (0.41)	1.42	-0.20 (0.32)	0.82	-0.38 (0.35)	0.68
Asian Immigrant	1.15 (0.20)	3.16 ***	1.37 (0.25)	3.94 ***	-1.09 (0.14)	0.34 ***	-0.23 (0.16)	0.79 ***
SES								
Mother's years of education								
Less than 25K (reference group)			0.30 (0.02)	1.35 ***			0.18 (0.02)	1.20 ***
25-50K			0.93 (0.21)	2.53 †			0.11 (0.11)	1.12
50-75K			1.19 (0.25)	3.29 †			0.59 (0.14)	1.80 ***
75-100K			1.18 (0.23)	3.25 *			0.83 (0.14)	2.29 ***
100K +			1.65 (0.24)	5.21 ***			1.06 (0.16)	2.89 ***
Family Structure								
Biological mother & father (reference group)								
Biological mother & step father			0.15 (0.43)	1.16 *			-0.45 (0.13)	0.64 ***
Single biological mother			-0.30 (0.21)	0.74 *			-0.30 (0.11)	0.74 **
Other family formation			0.07 (0.13)	1.07			0.36 (0.26)	1.43
Female child			0.80 (0.10)	2.23 ***			-0.68 (0.07)	0.51 **
Number of siblings			-0.08 (0.07)	0.92			-0.04 (0.04)	0.96
Mother works for pay			-0.06 (0.13)	0.94 †			0.26 (0.08)	1.30 **
Mother's work schedule makes it difficult to attend school events			-0.37 (0.12)	0.69 ***			-0.22 (0.08)	0.80 **
N=	9833		8873		9831		8770	

weighted estimates

Standard errors in parantheses

†p<0.10, *p<0.05, **p<0.01, ***p<0.001

Data from the Early Childhood Longitudinal Study (ECLS-K)

Table 5. The effect of extracurricular music and athletics on 5th grade test scores (OLS)

	Reading			Math		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Race, ethnicity & nativity						
White Native (reference group)						
White Immigrant	-1.39 *	-4.17	-4.60	-1.93	-3.98	-4.26
	(3.47)	(3.83)	(3.85)	(4.58)	(4.86)	(4.84)
Black Native	-18.08 ***	-9.16 ***	-8.92 ***	-19.41 ***	-11.05 ***	-10.54 ***
	(1.46)	(1.51)	(1.52)	(1.37)	(1.44)	(1.45)
Black Immigrant	-3.58 ***	(2.80)	-1.16	-1.91	1.45	1.96
	(3.10)	(2.73)	(2.84)	(3.48)	(2.46)	(2.59)
Hispanic Native	-5.17 ***	-0.33	-0.13	-4.56 ***	-0.05	0.24
	(1.43)	(1.39)	(1.39)	(1.60)	(1.25)	(1.24)
Hispanic Immigrant	-15.70 ***	-3.32 *	-3.26 *	-11.25 ***	-0.23	0.22
	(1.46)	(1.57)	(1.58)	(1.21)	(1.45)	(1.43)
Asian Native	2.89	1.67	1.35	6.82	6.22 †	6.52 †
	(3.34)	(2.74)	(2.79)	(4.68)	(3.46)	(3.44)
Asian Immigrant	2.55	3.79 ***	3.43	5.56 ***	6.98 ***	7.62 ***
	(1.42)	(1.30)	(1.33)	(1.71)	(1.51)	(1.55)
SES						
Mother's years of education		2.54 ***	2.30 ***		2.27 ***	1.99 ***
		(0.18)	(0.19)		(0.18)	(0.18)
Less than 25K (reference group)						
25-50K		5.14 ***	4.86 ***		3.62 **	3.18 *
		(1.34)	(1.35)		(1.38)	(1.36)
50-75K		9.20 ***	8.44 ***		7.18 ***	6.05 ***
		(1.61)	(1.63)		(1.58)	(1.58)
75-100K		9.04 ***	7.98 ***		8.59 ***	7.07 ***
		(1.71)	(1.75)		(1.64)	(1.64)
100K +		12.16 ***	10.65 ***		10.28 ***	8.39 ***
		(1.79)	(1.83)		(1.75)	(1.76)
Family Structure						
bio mother & father (reference group)						
bio mother & step father		0.32	0.89		-1.09	-0.46
		(1.55)	(1.56)		(1.31)	(1.30)
Single biological mother		-2.41 †	-2.09		-2.86 *	-2.52 *
		(1.30)	(1.30)		(1.25)	(1.24)
Other family formation		-4.51 *	-4.39 *		-6.30 ***	-6.16 ***
		(1.89)	(1.83)		(1.80)	(1.73)
Female child		4.31 ***	4.23 ***		-2.72 ***	-2.28 **
		(0.84)	(0.87)		(0.83)	(0.83)
Number of siblings		-2.37 ***	-2.34 ***		-1.29 ***	-1.23 ***
		(0.37)	(0.37)		(0.37)	(0.37)
Mother works for pay		-2.23 *	-2.39 *		-1.06	-1.24
		(1.05)	(1.04)		(1.03)	(1.01)
Mother's work schedule makes it difficult to attend school events		-2.52 ***	-2.17 **		-1.67 *	-1.29
		(0.84)	(0.85)		(0.81)	(0.80)
Participation in activities						
Music						
No music (reference group)						
3rd grade only			3.62 *			1.65
			(1.87)			(1.77)
5th grade only			3.63 ***			3.18 ***
			(1.11)			(1.06)
Ongoing Music lessons			4.66 ***			2.82 **
			(1.14)			(1.12)
Athletics						
No athletics (reference group)						
3rd grade only			-0.13			2.26
			(1.53)			(1.40)
5th grade only			0.98			2.01
			(1.37)			(1.54)
Ongoing athletics			2.69 *			5.53 ***
			(1.19)			(1.07)
Constant	142.84 ***	105.52 ***	106.28 ***	116.93 ***	85.33 ***	85.13 ***
	(0.67)	(2.81)	(2.85)	(0.63)	(2.76)	(2.75)
r ²	0.10	0.27	0.28	0.11	0.26	0.27
N=	9466	8386	8091	9472	8396	8097

Standard errors in parentheses

†p<0.10, *p<0.05, **p<0.01, ***p<0.001

Data from the Early Childhood Longitudinal Study (ECLS-K)