Children's participation in organized out-of-school-time activities and the outcomes associated with those activities vary according to family social ecology and child characteristics.

Predicting participation and outcomes in out-of-school activities: Similarities and differences across social ecologies

Sandra D. Simpkins, Marika Ripke, Aletha C. Huston, Jacquelynne S. Eccles

Many organized out-of-school-time (OST) activities provide enriching opportunities for children to interact with peers, build cognitive skills, develop relationships with mentors, and explore a variety of talents and leisure pursuits. A growing set of findings suggests that youth participation in OST activities is associated with academic achievement and overall well-being. Adolescents who participate in these activities have lower school absenteeism, are less likely to drop out, like school more, get better grades, and

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are more likely to attend college than adolescents who do not participate in these activities.\footnote{1} Activity participation is also associated with positive social adjustment, such as low problem behavior, drug use, and loneliness.\footnote{2} This growing literature has greatly added to our knowledge concerning the role of OST activities in children's lives. Yet several questions remain. First, most research on this topic has been conducted with adolescents, but OST activities are an important component of many children's lives during the elementary school years as well. We need a deeper understanding of what leads younger children to participate in activities and whether the benefits associated with participation are greater for some children than for others.

In this chapter, we use data from two samples to examine whether there are gender and sample differences in participation in various organized activities and whether the relations of participation to adjustment are stronger for some subgroups than for others. Although children in both samples are of roughly the same age and report on similar measures of participation and outcomes, their family incomes, socioeconomic status, ethnicity, and neighborhoods are very different. The youth in the first study, Childhood and Beyond (CAB), come from largely white, middle-class families in urban, suburban, and rural Michigan, whereas those in the second study, New Hope, are from low-income families in Milwaukee who are primarily African American and Hispanic.

The majority of research on OST activity participation has focused on its relation to academic and social development, presumed to be consequences of participation, rather than on antecedents or predictors of participation. Understanding who participates can assist program directors in improving and sustaining youth involvement. We examine possible differences for children in the two social ecologies sampled by CAB and New Hope and differences between girls and boys.

Previous studies show differences in participation associated with family socioeconomic status (SES). Children from economically disadvantaged families spend more time in informal and unstructured activities compared to their more advantaged coun-
terparts.\textsuperscript{3} U.S. Census data show that only 3 percent of children ages six to fourteen living in poor families participated in organized sports, compared to 26 percent of children in more affluent families.\textsuperscript{4} Conversely, children from more affluent families are more likely to be enrolled in lessons, organized sports, and clubs than are children from low-income families.\textsuperscript{5} Low-income parents rely more on community centers and such national youth-serving organizations as the Boys & Girls Club and the YMCA as out-of-school arrangements.\textsuperscript{6}

These SES differences may be a product of disparity in family resources (money to pay for fees, materials, and equipment), divergence in availability, differences in values, or other dissimilarities in family ecologies. Middle- and upper-income parents have more money to pay the costs of expensive enrichment programs, and they are more likely to have readily available transportation as well as the flexibility in work schedules to transport their children to practices, lessons, and events.\textsuperscript{7} Youth in low-income families may have more restraints on their free time because of caregiver and household responsibilities that constrain the time they can spend away from home. Low-income neighborhoods and schools may have fewer activities available, and parents may have more concerns about safety or negative influences of the peers who will be involved. These circumstances may explain why children from low-income families are less likely to participate in most activities, particularly those that require substantial community, time, or monetary resources, such as sports.

Girls and boys also engage in different patterns of activities. A long research tradition has established gender differences in children's play styles, peer group size, and toy selection that may carry forward to children's choices about how they spend their time out of school.\textsuperscript{8} For example, although the gender gap in sports is decreasing, boys still participate in more sports than girls do.\textsuperscript{9} Girls participate in more faith-based and other types of activities than boys do.\textsuperscript{10} With few exceptions, however, little work has systematically addressed gender differences in participation.
Relations between participation and developmental outcomes

Although most research shows that positive outcomes are associated with children's participation in activities, a handful of studies suggest that these relations vary depending on characteristics of the child, family, and activity. For instance, emerging research suggests that the impact of activity participation is larger for adolescents who are not doing well academically or socially than for those who are more successful.11

Children from low-income families are more likely to have behavioral and academic problems, which stem partly from the less cognitively stimulating and emotionally supportive qualities of these children's environments. Introducing enriching OST activities into the lives of low-income children may have a larger impact than it would for middle-class youth, who are more likely to have an enriching home environment, as well as access to enriching activities outside the home. For example, Marshall and colleagues found that elementary school children's involvement in an after-school program was associated with low levels of internalizing problems (such as depression and loneliness), but only for low-income children.12 Few researchers, however, have examined whether the relationship between activity participation and children's developmental outcomes varies by families' SES levels.

Boys are also more likely than girls to have behavioral and academic problems, but there is little evidence about whether participation relates differently to developmental outcomes for males and females. The available findings are inconsistent. In some studies, participation in sports was positively associated with boys' grade point averages (GPAs)13 but not with girls' GPAs. In another study, Gore and colleagues found that adolescents' sports involvement was positively linked to boys' and girls' GPAs.14 We supplement this research by studying gender differences in the relations between activity involvement and a variety of child outcomes.

Different types of activities are likely to provide unique experiences and might therefore lead to divergent outcomes. Although
children in formal after-school activities spend more time in interactions with peers, academic activities with adults, and enrichment lessons than children in other after-school care settings. It is likely that children's experiences vary depending on the type of activity. For example, athletic teams and religious education classes provide different opportunities for cooperation and interactions with peers and adults. Research on adolescents shows that sports activities are associated with fewer feelings of depression, but there is no relation of depression to involvement in art, community service-type activities, or school activities. Although a handful of studies have examined multiple activities, many studies on younger children focus on one or two specific activities or on total involvement rather than multiple endeavors. In this chapter, we incorporate a range of OST activities in order to gain a deeper understanding of children's involvement and of the outcomes associated with these activities.

This chapter focuses on differences in children's participation in activities based on family social ecology and child gender and how the relations between participation and outcomes vary based on family ecology, gender, and activity type.

The Childhood and Beyond Study: Overview and methods

The CAB study began in 1987 when children were in kindergarten, first, and third grades. This investigation includes data from three waves: wave 2 (when children were in first, second, and fourth grades; \( n = 501 \)), wave 3 (second, third, and fifth grades; \( n = 455 \)), and wave 4 (third, fourth, and sixth grades; \( n = 393 \)). Children from these three waves cover a similar age range as the first wave of the New Hope data set, which is described in the next section. Children were initially recruited through their public school districts in four middle- and working-class communities near Detroit, Michigan. This sample is composed of primarily two-parent (90 percent), European American families with middle-class
incomes (the 1990 annual income ranged from $10,000 to $80,000; median = $50,000 and $59,000). Data on children’s OST activities were collected from parents, and data on children’s outcomes were reported by teachers.

Children’s activities
To examine children’s OST activity participation, parents listed up to twenty after-school activities, programs, and classes in which their child participated during the previous year. They were given a list of 117 activities from which to choose, but they could also list activities not on the roster. For each activity listed, parents described how many weeks their child participated in the previous year and how many hours per week their child participated in the activity while he or she was involved (1 = less than one hour per week, 4 = three to six hours per week, 7 = more than twenty hours per week). Parents also listed whether the activity was part of a formal, organized group; an informal, unorganized group; or both. Activities that were classified only as part of an informal, unorganized group were deleted from further analysis.

Using the activity data provided by parents, we created five activity groups, or types, to match the New Hope data set. Participation in each type of activity was defined by the average time the child spent in it each week across the year. The activity groups and types are as follows:

Sports included forty-one physical fitness and athletic activities.
Art lessons included seventeen activities, such as drama, painting, playing musical instruments, and singing.
Recreation and community center activities included three activities (day or overnight camps, general after-school programs, and other community activities).
Club and youth group activities included three activities: YMCA; scouting and similar groups, such as Brownies and Indian Girls; and church social groups.
Religious activities reflected children’s participation in religious education classes. This category differed the most from the New
Hope data. In the New Hope study, religious activities included religious services and religious education classes.

**Children's developmental outcomes**

At wave 4 (spring 1990 when children were in third, fourth, and sixth grades), teachers rated how well children were performing in math and reading compared to how well the teacher believed they could perform (1 = far below ability, 7 = to maximum of ability). Also at wave 4, children reported their feelings about their academic abilities (that is, their academic self-concept). Teachers rated the likelihood of children's delinquent behavior in adolescence. One question, for example, asked, "How likely do you think it is that this child will use drugs during his/her adolescence?" The answers ranged from 1 (not at all likely) to 7 (very likely).17

**The New Hope Project**

The second sample for this study is part of a larger sample of low-income, primarily single-mother families who participated in the New Hope Project, an antipoverty demonstration program designed to enable families to move out of poverty through employment. New Hope participants were recruited from July 1994 to December 1995; adults with incomes at or below 150 percent of the poverty threshold were eligible. They were randomly assigned to a control group or to a New Hope program group that was eligible for income supplements, subsidized health care and child care, and case management if they worked at least thirty hours per week. If job searches were unsuccessful, community service jobs were available.18

This investigation includes data from children who were part of the Child and Family Study (CFS) sample, which included families of all 745 sample members who had one or more children between the ages of thirteen months and ten years eleven months at the time of random assignment. Up to two children in each CFS family were identified as focal children to be studied. Data for this study were collected from surveys administered to parents, focal children,
and their teachers, where applicable. Parents were predominantly single (90.4 percent); 56.8 percent were African American, 26.6 percent were Hispanic, 13.1 percent were non-Hispanic white, and 3.5 percent were Native American. The proportion of boys and girls in this sample was roughly equal.

Children’s mean participation levels in activities are presented for all children ages six to twelve for whom we have complete data ($N = 541$). However, in order to match the ages of children in the CAB (middle-class) study, analyses of the associations between activity participation and academic and social outcomes are restricted to children ages nine to twelve ($N = 277$).

**Children’s activities**

Parents reported how frequently their children participated in lessons, sports with a team and/or coach, clubs and youth groups, and religious classes and events, and how often they attended recreation or community centers during the previous year using a five-point scale (1 = never, 2 = less than once a month, 3 = about every month, 4 = about every week, 5 = about every day). We then computed a mean score for structured activity participation.

**Children’s developmental outcomes**

Children’s academic performance was assessed with the Academic Subscale of the Social Skills Rating System (SSRS), on which teachers rated how well children were performing compared to their classmates using a five-point scale (1 = lowest 10 percent, 5 = highest 10 percent). As with the CAB study, children’s academic motivation was assessed. Whereas CAB measured children’s academic self-concepts, New Hope measured children’s academic expectations. Children ages nine to twelve reported how sure they were that they would complete high school (1 = not at all sure, 5 = very sure). As a parallel to CAB’s measure of delinquent behavior, we analyzed parents’ responses to the externalizing subscale of the Problem Behavior scale on the SSRS, using a five-point scale (for example, “is aggressive toward other people/objects”; 1 = never, 5 = all the time).
Findings

Study results revealed that children's participation and the associated outcomes differed based on child characteristics and social ecologies.

Children's participation in activities

We examined both the percentage of children who participated in the various activities and the intensity of their participation (the frequency and amount of time spent). Figure 3.1 shows the percentage

Figure 3.1. Percentage of children who participated in various activities in CAB and New Hope
of children in the CAB study and the New Hope study who participated in various activities from ages six through twelve.

Children's participation varied based on the study and type of activity. The percentage of children participating in lessons and club/youth groups is similar across both samples. Some of the most notable differences between the two samples occur in sport, recreation/community center, and religious activities. As others have found, children from middle-class families in CAB were more likely to participate in sports and less likely to go to community/recreation centers than the low-income children in New Hope.

In comparison to CAB, fewer New Hope children participated in sport activities. Specifically, at different ages, 75 to 85 percent of CAB children participated in sports, whereas only 40 to 60 percent of children in New Hope participated in sports. Fewer than 10 percent of CAB children participated in recreation/community center activities compared to 40 to 60 percent of New Hope children. More New Hope children participated in religious and recreation/community center activities. Participation rates for religious activities may have been lower in CAB than New Hope because the CAB questionnaire item contained only participation in religious education classes, whereas the New Hope questionnaire item included both participation in religious education classes and service attendance.

In wave 4 of CAB (when children were in third, fourth, and sixth grades), children also reported how much time they generally spent each week in religious services or doing religious activities. In contrast to the parents' report presented in Figure 3.1, 66 to 72 percent of CAB children reported spending time in religious activities, which is more consistent with parents' reports in New Hope (50 to 75 percent).

Another interesting comparison between the two studies is the pattern of participation across ages. In New Hope, the percentage of children participating in various activities generally increased with age, but in both samples, there are decreases in the percentage engaging in club/youth group activities after age eight (more pronounced in CAB). In CAB, the increases in art lesson participation
were almost the mirror image of the decreases in club/youth group participation. The three other activities—sport, religious, and recreation/community center—appear fairly stable across time in CAB.

Participation patterns also differed across gender. In both studies, a higher number of girls participated in art/lessons than boys. Gender differences in sports participation depended on children's age. Younger boys (ages seven to nine in CAB and age nine in New Hope) were more likely to participate in sports than girls, but by age ten in CAB and age eleven in New Hope, there were no gender differences in sports participation. There were no gender differences in religious participation at any age in either study. The findings for club/youth groups and recreation/community centers were mixed. For the middle-class youth of CAB, club/youth groups and recreation/community center participation were similar for boys and girls. In New Hope, eight-year-old girls spent more time than boys did in clubs/youth groups; however, at ages eleven and twelve, the reverse was true: boys at ages eleven and twelve spent more time in recreation/community centers than did girls in New Hope.

The amount of time in activities is presented in Figure 3.2. Comparisons across CAB and New Hope are a little more challenging with this indicator of participation, as the scales differed across studies. CAB children's participation is indexed in hours per week. Participation of New Hope children has the following scale: 1 = never, 2 = less than once a month, 3 = about every month, 4 = about every week, 5 = about every day. In CAB, children spent more time in sport and art activities than in other activities, particularly during mid- and late elementary school. The time children spent in other activities remains relatively low at each grade level. Like children in CAB, children in New Hope spent a great deal of time in sports (it was the second most frequent activity), but they spent even more time in religious activities.

There were also some significant differences in the amount of time spent in activities based on gender. Girls spent more time in art and lessons than did boys in both studies. Boys at seven, eight, and eleven years of age in CAB and New Hope spent significantly more time in sports than did girls. There were generally
Figure 3.2. Mean participation intensity across various activities in CAB and New Hope

Note: In the CAB figure, means represent average hours of participation per week, averaged across the calendar year. In New Hope, means can be interpreted using the following scale: 1 = never, 2 = less than once a month, 3 = about every month, 4 = about every week, 5 = about every day.

no differences by gender for time spent in religious activities. The findings for clubs/youth groups are mixed: in New Hope, girls at younger ages (eight, nine, and ten) participated more frequently in clubs and youth groups than boys, while at ages eleven and twelve, the reverse was true. New Hope boys participated in recreation and community centers more frequently than girls did at ages six, eleven, and twelve. In CAB, boys and girls generally par-
ticipated for similar amounts of time in recreation/community and club/youth group activities.

It is worth noting some differences between the two indicators of participation. For example, in CAB, although the percentage of children participating in sports remained steady as children aged (Figure 3.1), the time youth spent in sports increased across time (Figure 3.2). In addition, although the percentage of CAB children participating in club/youth group and religious activities differed from recreation/community center activities, the time youth spent in these three activities was similar (Figure 3.2). In New Hope, however, the two indicators of participation showed relatively similar patterns.

**What does activity participation predict, and for whom?**

To examine the relations of participation to children's development, we split youth into three groups based on the amount of time they spent in activities: (1) none, (2) low (less than one hour per week in CAB, less than or about once a month in New Hope), and (3) high (one hour or more per week in CAB, about every week or every day in New Hope). Significant results from these analyses are organized by outcomes. Within each analysis, we examined the possibility of different associations for boys and girls. We could not do direct statistical comparisons of CAB and New Hope because the measures were somewhat different.

**Academic performance**

Children's academic performance varied by their participation in several activities. The children in CAB and New Hope who participated most frequently in sports and art/lessons (the high-participation group) had higher school performance than those who did not participate at all. New Hope children who had high participation in community/recreation centers also had higher school achievement than those who did not participate at all. CAB children who participated at high levels in club/youth groups, sports, or art/lessons outperformed children who participated at low levels in the same activities. Across all of these activities, CAB
and New Hope children who participated at the high levels had higher academic performance than children who did not participate and sometimes had higher performance than youth who participated at low levels in the same activity in the CAB sample.

**Academic beliefs**

Children's beliefs about their academic abilities or their academic self-concept did not typically differ based on their activity participation in CAB. In the New Hope sample, participation in sports and recreation/community centers predicted expectations to complete high school. The children who participated in sports at low or high levels had higher expectations than those who did not participate at all. The children who participated at high levels in recreation/community centers had higher expectations than those who did not participate at all. Overall, however, there was not a strong link between participation and academic beliefs.

**Problem behavior**

In both studies, children's delinquent or problem behavior differed only based on participation in sports activities. Children's problem behavior did not vary based on participation in lessons, religious, recreation/community center, or club/youth group activities in CAB or New Hope. In CAB, boys and girls who participated in sports at high levels were rated by teachers as less likely to be delinquent in adolescence than youth who participated at low levels. Interestingly, high participants were not significantly different from nonparticipants in terms of teachers' expectations for delinquent behavior. In New Hope, children who participated in sports at high levels had lower levels of problem behaviors than those participating at low levels or nonparticipants.

**Sex differences in relation to participation to outcomes**

In each analysis, we tested gender differences in the relations between activity participation and child outcomes. In CAB there was only one case in which this happened: girls who participated in sports at high levels had significantly higher academic self-concepts than boys who participated in sports at high levels and than girls
who did not participate in sports. With one exception in CAB, relations between participation and outcomes were similar for boys and girls. In New Hope, there were four cases in which the associations between participation and outcomes were different for boys and girls; in all of these, the association was stronger for boys than for girls. Specifically, participation in art/lessons and recreation/community centers significantly predicted higher school achievement for boys but not girls, and sports and recreation/community center participation predicted educational expectations for boys but not for girls. The number of significant differences by gender is small, particularly in the case of CAB. With a few exceptions, the relations between participation and child outcomes were similar for boys and girls.

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**Participation and outcomes across two social ecologies**

The findings from this investigation underscore some important messages. The patterns of activity participation for children in the two social contexts we investigated were quite different. Youth in CAB participated in more sports activities, and more New Hope children attended recreation/community centers and religious activities. These patterns are consistent with earlier findings comparing children from different SES levels, but these two samples differed in many ways: average income, ethnic group, area of the country, and types of neighborhood, to mention only a few. With that caution, we speculate that low-income families take advantage of religious institutions and local recreation and community centers more than the middle class families who enroll their children in lessons and sport teams because the former are more affordable and these types of activities are more readily available and easier to access in their communities.

We also compared boys' and girls' activities, finding some evidence for sex-typed activity content, which replicates and extends earlier findings. Compared to girls, boys participated more in sports and less in art/lessons. There were no gender differences in involvement in the other types of activities sampled, suggesting that
recreation/community centers, clubs/youth groups, and religious activities appeal to both boys and girls.

Despite the different levels of participation and the divergent social ecologies, the relations of participation to achievement and behavior were similar across the two samples. In both studies, participation was associated with favorable outcomes. The difference emerged in the comparison group. In CAB, children who participated most frequently had better outcomes than youth who participated at low levels and sometimes youth who did not participate. In the New Hope data, however, the differences consistently occurred between youth who participated at high levels and youth who did not participate at all. This may have emerged because the middle-class youth in CAB who are not involved in a particular activity are likely to be involved in something else. Thus, the comparison between youth in CAB who participate at high levels or not at all may actually be a comparison between youth who participate at high levels in activity A versus youth who participate at high levels in various other activities. New Hope children may have had fewer opportunities to participate in activities. In many studies, researchers and evaluators only compare youth who participate in activities (regardless of the amount of time they spend in these activities) with those youth who do not participate. If we had made this type of comparison only, we would have missed most of the significant differences in the middle-class CAB sample.

We expected that activity participation would be more strongly related to developmental outcomes in the New Hope sample because these children are more at risk for low academic performance and high behavioral problems. The results across the two samples, however, were highly consistent. Sports participation was associated with high achievement and low levels of problem or delinquent behavior in both samples; it also predicted high educational expectations for the New Hope children. Our results suggest that activity participation is linked with similar outcomes for both groups of youth.

The five activity categories we sampled had different patterns of relations to children's school performance and behavior, as have the
few previous studies that included a variety of activities. For both samples, participation in sports was a consistent predictor of good school performance and low behavioral problems. Sports also had the highest participation rates and intensity in the CAB sample, but that was not true in New Hope. Some activities may have had little impact because children did not participate in them very often, but the only very low rate occurred for recreation and community centers in CAB. The reasons for positive associations with sports and weak or nonexistent associations with other activities are not clear. In a sample of older children, one might guess that low achievers are selected out of sports by "no pass, no play" rules, which mandate that youth maintain a certain grade point average in order to participate in sports; however, that is not likely in elementary school. The next stage of research on out-of-school activities should address the processes by which activities play a role in children’s development.

Notes


17. Academic self-concept was an eight-item scale; reliability was .79. The reliability of the two-item scale on children’s performance was .85. The reliability of the delinquency scale was .93.

22. Gender differences were tested with independent *t*-tests. All tests discussed were statistically significant at least at $p < .05$ for all comparisons in CAB and New Hope.
23. Analysis of covariance (ANCOVA) was used to examine the associations between participation intensity and children's outcomes. In the CAB ANCOVAs, three variables were included as controls: child cohort, family income, and the highest educational attainment across parents. The control variables in the New Hope analyses were child age, family income, parent education, experimental/control group status, and ethnicity. The independent variables in each analysis were children's gender and activity participation. A separate ANCOVA was computed for each outcome and activity. Results that were statistically significant at least at $p < .10$ are discussed.

**Sandra D. Simpkins** is an assistant professor in the Department of Family and Human Development at Arizona State University.

**Marika Ripke** is the project director of Kids Count Hawai‘i at the University of Hawai‘i at Manoa.

**Aletha C. Huston** is the Pricilla Pond Flawn Regents Professor of Child Development and the associate director of the Population Research Center at the University of Texas at Austin.

**Jacquelynne S. Eccles** is the Wilbert McKeachie Collegiate Professor of Psychology, Women's Studies and Education, as well as a research scientist at the Institute for Social Research at the University of Michigan.