



LEARNING TO PLAY

and

PLAYING TO LEARN

Organized Sports
and Educational
Outcomes



By Ann Rosewater

Prepared for
Team-Up for Youth

February 2009

Team-Up for Youth™ dedicates this monograph, and the ones to follow, to our Bay Area partners, who consistently work to address the needs of the whole child and the most underserved children. It is only through these committed people and organizations building quality sports programs that the kids who need them the most are able to benefit the most.

Thank you Bay Area partners!

The 2009 Team-Up for Youth Monograph Series

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FOREWORD

On any given afternoon, in school gymnasias, playing fields and running tracks across the country, the sounds of balls being hit by bats, rackets, feet, sticks and basket rims punctuate the noise from runners racing around 400-meter tracks, high jumpers flopping onto pads, swimmers diving into pools, wrestlers slamming into mats, and more. These are the sounds of America’s youth involved in organized sports, and a vast body of research demonstrates that it is not just athletic prowess that these youngsters are developing.

This report is the first of a series of monographs designed to explore what is known about the healthy development we seek for children and youth, and how participation in sports-based youth development activities can contribute to reaching this goal. With increasing public pressure to concentrate on student achievement, we focus this first report on the educational benefits of youth participation in organized sports activities.

These reports are designed to stimulate discussion and action to strengthen sports-based youth development programs and ensure that children and youth who are currently underserved — especially low-income children, children of color, and girls — gain the benefits of participating in them. Through these monographs, Team-Up for Youth synthesizes lessons from the literature and presents them to the field so that practitioners can use them to advance their work and improve outcomes for the young people they serve. Future papers in this series will explore health outcomes and outcomes for girls, respectively, as they relate to after-school sports participation.

We are deeply indebted to the people listed in the appendix of this document, who inspired our work and made it possible. Special thanks to the Annie E. Casey Foundation, for supporting Team-Up for Youth’s convening of an esteemed group of the leading researchers in the fields of human development, psychology, sociology, education and kinesiology.

We are also grateful to the William and Flora Hewlett Foundation for co-hosting the convening, for their generous support of Team-Up for Youth and for their national leadership in improving educational outcomes for disadvantaged young people. Thanks are due also to the Koret Foundation for its support of Team-Up for Youth and commitment to improving education for disadvantaged youth. We are also grateful to Larry Stupski, who has consistently supported Team-Up for Youth’s work and who inspires us with his leadership in the field of education reform.

This report was written by Ann Rosewater, nationally recognized as a leader and expert on public policy affecting families, children and adolescent development. We are grateful that she has applied her skills, experience and wisdom to the

emerging field of sports-based youth development. Ann’s work helps frame this field with insight, intellectual rigor and creativity.

This monograph, and those that will follow, could not have happened without the leadership of Team-Up for Youth’s policy director, Susan Kleinman Wallis. Susan’s laser focus on improving educational, health and social outcomes for disadvantaged youth by providing practitioners with research, policy and advocacy tools to increase their impact is the passion driving this endeavor. We are deeply indebted to her for convening such an outstanding group of advisors and producing what we know will be a valuable and practical series of monographs.

Janet Carter
Executive Director

AUTHOR’S ACKNOWLEDGEMENTS

Many people contributed to the development of *Learning to Play and Playing to Learn*. I am especially appreciative of the leading academicians who have recognized the importance of learning environments in the non-school hours, and specifically the opportunities provided for young people by sports and other organized physical activity. I had the opportunity to interview many scholars who shared their knowledge and wisdom and directed me to important published and unpublished studies and data. In addition, several of these scholars and other leaders from sports-based youth development organizations and philanthropy joined us for a richly textured in-person dialogue, further illuminating the opportunities and challenges suggested by the research. (See Appendix for complete list).

Janet Carter’s leadership is taking Team-Up for Youth and the field of sports-based youth development to new levels. Her support for building the intellectual framework to undergird this work has made her a true colleague. Lynne Lee’s determination to make the report accessible to a broad public has consistently kept me on track. The platform for this inquiry was provided by J.R. Atwood through his excellent literature review. Several people gave extra time to read and comment on drafts of the report. Sylvia Yee, a trustee of Team-Up for Youth, provided insightful comments on an early draft. Jennifer Fredricks, Kathleen Miller and Maureen Weiss also offered extremely thoughtful suggestions and additional references. Lisa Lederer has, as always, done a masterful job of synthesizing and highlighting the report’s message. I have been very fortunate to work with Susan Kleinman Wallis. She has been a wonderful partner in developing this report and in providing ongoing support, attention to detail and thoughtful recommendations throughout its evolution. Of course, any errors or omissions are mine alone.

Ann Rosewater
February 2009

EXECUTIVE SUMMARY

Millions of children participate in sports every day, every week, every year. High-quality organized sports are a gateway to academic achievement, better grades, improved chances of attending college and success in the labor market — and these benefits are especially important for low-income youth. This report analyzes several distinct strands of research on the effects on youth of participation in organized sports. Over the years researchers have examined this core issue from any number of perspectives. Their findings have varied, depending on the nature of their inquiries, whom they asked, and how they compiled their data. Sometimes researchers developed data that seemed to contradict previous research. But more often their data reinforced a straightforward conclusion: that high-quality organized sports engage students, teach them important skills, draw them into the task of learning, and connect them to fellow students and caring adults. An important result is a series of improved outcomes for students.

This report examines data on the impact of organized sports on the academic and intellectual achievement of students. The studies surveyed indicate that:

● Children and youth who participate in organized sports are higher achievers in terms of grades and dropout rates, as well as related measures of academic achievement such as homework completion, educational aspirations and more.

● Physical activity, including participation in organized sports, produces intellectual and academic benefits that may have long-term positive effects on life chances.

● Participation in physical activity affects key brain functions critical to learning.

● Both boys and girls reap the achievement benefits of participation in organized sports.

● Participants in organized sports are more likely to attend college and to land better jobs with more responsibility and higher pay.

Turning to the impact of participation in organized sports on students’ values and motivations, the data demonstrate that:

● Sports help children and youth feel better connected to school, attend school regularly, and connect with a more positive peer network.

● Parents of those high school students who participate more in sports have higher expectations for their children.

● Sports participation builds planning skills, and provides the experience of failing and trying again (persistence); these experiences provide a learning process that can translate to feelings of greater possibility for achievement in the school setting.

Sports have an important effect on the development of children’s peer networks. Research finds that:

● High school youth participating in organized sports activities view sports as providing a place to meet other young people “who had at least one shared interest.”

● High school girls find participation in sports to be a way to break gender stereotypes, enhancing their sense of possibility.

● Sports participation contributes significantly to youth identity, especially in high school.

The effects of participating in organized sports are as good or better for children from low-income families as for children from families with more income. The data show that:

● For children who are on the margin (e.g. poor, learning-disabled, obese, gay), sports participation can minimize feelings of difference and isolation and increase the likelihood of attending college.

● Participation in organized sports may provide an opportunity for low-income children that other youth take for granted; as a result, the effects on academics and grades are more pronounced for poor children.

● Sports participation is correlated with improved grades or test scores among African American and Latino students.

● African American and Latina female athletes reported better grades in high school and greater involvement with extracurricular activities than female non-athletes.

Opportunities to participate in organized sports are not evenly distributed across the student population. The data show that:

● Adolescents from more affluent families are more likely to participate in organized activities than adolescents from low-income families.

- Research indicates that Asian Americans and Latinos are less likely to participate in sports than other ethnic groups.
- Disparities in participation are more pronounced in activities, such as sports and lessons, that require financial investment.
- Opportunities dwindle as students move from elementary to middle and high schools.
- Boys have more opportunities to participate in organized sports than girls, and girls’ opportunities to participate diminish more rapidly as they advance from elementary to high school.

Too many young people lack sufficient opportunities to participate in high-quality organized sports. The data show that:

- According to one study, about 75 percent of children from white middle-class backgrounds participated in organized sports activities, while only 40 percent to 60 percent of low-income children of color did so.
- Urban girls, especially girls of color, often face higher barriers to participation, including outside jobs, cultural factors, and weaker parental support for sports involvement.
- Latino children report having fewer opportunities for safe outdoor play, and are less physically active than white children.

Based on these findings, the report offers a series of recommendations for policy, practice and research to ensure that organized sports programs fulfill their promise and enable participants to reach their educational goals. These recommendations include:

- Connect sports-based youth development programs more deliberately to schools and learning, by requiring school attendance and/or performance (while offering supports to help meet those requirements), creating ways for coaches to serve as school liaisons, and more.
- Ensure that coaches are well trained in child and adolescent development and other key characteristics of effective programs; program leaders must provide support for coaches’ engagement with participating youth.
- Organize sports activities in ways that encourage and support parental involvement.

- Promote youth involvement in program design.
- Take steps to reduce risky behaviors by offering drug and alcohol education.
- Improve access to and sustained participation in high-quality programs by increasing the number of such programs, and by placing programs where children and parents can easily reach them; address financial barriers to programs provided in the non-school hours.
- Learn more about the mechanisms and processes that enable positive educational outcomes.
- Further investigate the factors affecting young people’s participation in organized sports; and continue to unravel the research challenges of self-selection and causation.

This report strengthens the conclusion that organized sports can help students succeed in school and in life. It also goes further, documenting the specific mechanisms for that engagement, highlighting barriers to expanding children’s opportunities to participate, and laying out a fuller range of benefits to be gained from participating.



INTRODUCTION

Millions of children participate in sports every day, every week, every year. Sports make up the largest category of after-school activities available for children and youth. What happens in the context of sports activities matters — it may affect how and what children learn, how they interact with others (both adults and peers) and who those others are, and their capacity to regulate their emotional and physical development over time.

With such enormous potential residing in youth sports, it is critical to learn from the current knowledge base and continue to build it to help ensure that young people reap all the benefits possible from their participation. In this report we focus on the relationship between sports-based youth development programs and participants’ success in school, particularly for children and adolescents living in low-income communities and communities of color. In doing so, we apply insights and lessons from the youth development field.¹ This analysis of the research is designed to foster a public conversation about the availability, role and benefits of sports-based youth development that will affect policy and practice and stimulate future research.

To promote this discussion, the report presents findings about the educational benefits of participation in organized sports activities, examines factors contributing to these benefits, and considers what is known about who participates and about the factors contributing to their participation. These findings reflect an extensive review of research literature across multiple disciplines, interviews with numerous experts in child and adolescent development and its relationship to sports and out-of-school-time activities, and a forum of experts, practitioners and philanthropists working to identify implications emerging from the findings.^{2,3}

In linking organized sports to educational benefits, the literature employs a number of concepts: physical activity, which may or may not occur in a structured and supervised setting; physical fitness, which generally refers to an individual’s performance on tests of aerobic capacity, endurance, strength or flexibility; and organized sports, which are adult-supervised sports activities generally taking place during out-of-school time. For example, there is increasing evidence that time spent in physical activity during school hours does not negatively affect academic achievement and may have positive effects (Chomitz et al., 2009). The distinctions among these concepts are not always carefully

“Out-of-school time is likely to be as critical as school time in teaching kids to learn about a global world.”

—Joseph Mahoney,
UC Irvine

drawn. Furthermore, some studies consider both school-based activities and community-based programs, while some of the research focuses on participation during out-of-school time and some considers participation during the school day. The preponderance of evidence on which these findings draw comes from studies of children’s participation in after-school activities, including organized sports.

We attempt to bring together these research findings to understand both their general direction and how they vary according to the age, gender, race and income of their subjects. Some of the findings also may be inconsistent or contradictory, as the research draws on different methodologies, different samples of children and communities and a range of activity or program experiences. In addition, the experts may differ in their theories of what generates the effects they have uncovered.

On the whole, the participation of children and youth in organized, supervised sports activity outside the regular school day has beneficial effects on their grades, high school completion, college attendance and success in the labor market. Other areas that relate to or grow out of academic performance — school attendance, homework completion and aspirations for postsecondary education, for example — also are affected positively by students’ involvement in sports. Yet the factors that contribute to these positive educational outcomes are not fully understood. Some of the factors indicated in the literature are:

- Getting involved in sports at younger ages improves the chances that children will continue to participate in organized sports activities.
- The more persistent the participation over time and the more engaged in an activity youth become, the more robust the impact on academic measures.
- Connecting to ongoing and structured sports activities helps shape a young person’s sense of identity and defines the other young people with whom he or she spends time.
- Connection to a peer group improves a child’s sense of belonging, building self-confidence and reducing the feeling of marginality that is a characteristic of many children with learning, social, emotional, physical or economic challenges.
- Sports activities that take place at or near school may also increase familiarity and comfort with school.

One of the persistently confounding questions within and across various research studies has been whether some of the positive outcomes of participating in organized sports activities result from self-selection or whether the factors noted above are themselves sufficiently strong contributors to overcome selection bias.

As children get older, and competition stiffens, the sports options for youth decline and youth are also more selective about what they do with their time. Other factors that are explored later in this document also contribute to who participates and whether they continue to participate regularly and over time. Nevertheless, Fredricks and others who have sought to control for self-selection have continued to find positive effects, even though they may not be as robust.⁴

The educational benefits arising from participation in supervised and structured sports activities indicate the importance of ensuring that all children, especially those for whom participation has been limited, have these opportunities. Furthermore, the opportunities in which all children participate should build in the kinds of experiences and practices that researchers have found make a difference to their learning and success. While millions of America’s children participate regularly in sports, there are many who do not, especially among low-income children, children of color and girls. The gap between those who participate in high-quality programs and those who do not has yet to be estimated.

This report is organized into three major sections: Findings, Implications and Recommendations.

¹ Perkins, D.F. and Le Menestrel, S. (Eds.). Sports-based youth development. New Directions for Youth Development, 115 (Fall 2007).
² Atwood, J.R. (2008). Sports-based youth development: A review of research on the academic achievement and psychosocial development of school-aged children who participate in physical education and sports programs. Prepared for Team-Up for Youth.
³ All interviews cited in this document were conducted by Ann Rosewater, July–September 2008. See Appendix for a list of interviewees and participants in the forum held at the Hewlett Foundation on November 10, 2008.
⁴ Jennifer Fredricks, Associate Professor of Human Development at Connecticut College, generously contributed the following comment about the challenging research questions surrounding self-selection: “Until recently, the research in this area has tended to use cross-sectional and correlational designs with limited adjustment for self-selection into activities. As a result, it has been difficult to separate the effects of organized activity involvement from preexisting differences between participants and nonparticipants. For example, adolescents who choose to participate in extracurricular activities tend to be of higher socioeconomic status, are more likely to be European American, have higher grades, and have less depressed parents, and have greater parental support than their peers (Bohnert, Martin, & Garber, 2007; Brown & Evans, 2002; Feldman & Matjusko, 2005; Huebner & Mancini, 2003; McNeal, 1998). These selection factors also predict positive adjustment, leading some to argue that the benefits of organized activity participation have likely been overstated in much of the prior literature (Fredricks & Eccles, 2006a; Holland & Andre, 1987; Larson, 2000).

“We need to bend our offerings to the kids, not bend the kids to the offerings.”

—Robert C. Granger,
William T. Grant Foundation

“Stronger conclusions about the associations between organized activity participation and development can be drawn from studies which adjust for preexisting differences between participants and nonparticipants and include measures of the dependent variable on multiple occasions (Larson, 2000; Marsh & Kleitman, 2002). For example, Eccles and her colleagues used longitudinal data to explore the effects of participation in organized activities in both a sample of working-class white youth and a sample of African American and European American youth (e.g., Barber et al., 2001; Fredricks & Eccles, 2006a; Eccles & Barber, 1999). In general, they

found that after adjusting for some self-selection factors measured prior to activity involvement, organized participation predicted academic adjustment, psychological functioning, lower-risk behavior, and civic engagement in both cross-sectional and longitudinal analyses. Similarly, Marsh and his colleagues (Marsh, 1992; Marsh & Kleitman, 2002) used longitudinal data from the High School and Beyond Study and National Educational Study to test the relation between high school extracurricular participation and a range of outcomes over time, after controlling for background variables and parallel outcomes variables measured two years earlier. Across these two data sets, they found that participation in extracurricular activities was associated with a range of academic and psychological outcomes, though the effect sizes were small and under one percent.”

FINDINGS

1 Physical activity, including participation in organized sports, produces intellectual and academic benefits; these benefits may have long-term positive effects on life chances.

- Participation in physical activity affects key brain functions critical to learning.

► For adults and children, exercise facilitates executive function (i.e., processes required to select, organize and properly initiate goal-directed actions) (Tomprowski, Davis, Miller, & Naglieri, 2008).

► Physical activity has positive influences on concentration, memory and classroom behavior, and a positive relationship with intellectual performance (Trudeau & Shephard, 2008).

► Physical activity activates specific biochemicals and proteins (brain-derived neurotropic factor and IGF-1) and loci in the brain having to do with certain functions that sharpen thinking and enhance memory, including focus, concentration and impulsivity; these functions have an impact on achievement (Ratey, 2008).

- Children and youth who participate in organized sports report higher achievement in school.

► Structured activity participation, especially in sports, has a positive relationship with school grades, while

unstructured activity is negatively related to school grades (Fredricks & Eccles, 2006; McHale, Crouter, & Tucker, 2001; Mahoney, Lord, & Carryl, 2005; Mahoney & Stattin, 2000). Interscholastic team sports produce stronger effects than intramural/individual sports, arguably because interscholastic sports are more selective, have more formalized rules, require a greater commitment by students, and are more competitive than intramural sports (Broh, 2002).

► Participation in high school sports has positive effects on many Grade 12 and postsecondary outcomes (e.g., school grades, coursework selection, homework, educational and occupational aspirations, self-esteem, university applications, subsequent college enrollment and eventual educational attainment) (Marsh & Kleitman, 2003; Fejgin, 1994; Broh, 2002).

► Sports participation is linked to improved grades in math and English and increased time spent on homework (Broh, 2002; Reisner, White, Russell, & Birmingham, 2004).

- Among boys, sports have been related to positive academic outcomes (Broh, 2002; Crosnoe, 2001).

● Several researchers find that, among girls, sports participation has been associated with higher grades and increased desire to attend college (Eccles & Barber, 1999; Feltz & Weiss, 1984; Melnick, Sabo, & Vanfossen, 1992; Miller, Melnick, Barnes, Farrell, & Sabo, 2005; Perry-Burney & Takyi, 2002).

● Other researchers suggest that sports participation is connected positively only to educational aspirations, including aspirations for college, not to achievement levels (Melnick, Vanfossen, & Sabo, 1988).

- Participation in sports helps young people stay in school.

► Sports participation reduces the dropout rate for male and female students in grades eight through twelve (Yin and Moore, 2004). High school athletic participation significantly lowered the dropout rate for white females in suburban and rural schools and Latina athletes in rural schools (Sabo, Melnick & Vanfossen, 1989).

► In a longitudinal look at a group of 600 boys and girls from childhood through age 24, participation in school extracurricular activities, including sports, was related to lower rates of dropping out of school and criminal arrest among children with many risk factors. This reduction



in poor outcomes resulted only when an individual’s peers also participated in the extracurricular activity (Mahoney, 2000).

► Participation in organized sports was associated with reduced levels of dropping out as great or greater than in any other activity (Mahoney & Cairns, 1997). These effects were strongest for low-income and at-risk youth (Fredricks & Eccles, 2006a).

- Youth who participate in organized sports are more likely to attend and complete college.

► Participation in high school sports has been linked to college enrollment, more months attending college and higher levels of post-secondary education, especially for students with initially low test scores and low educational aspirations (Marsh & Kleitman, 2002; Eccles, Barber, Stone, & Hunt, 2003; Fredricks & Eccles, 2006a; Crosnoe, Eccles interviews).

► Boys’ participation in football or basketball is associated with higher educational aspirations (Rees & Howell, 1990).

- Youth who participate in organized sports are more likely to land better jobs.

► Sports participation is associated with feelings of “having a job with a future” and having more job autonomy. Of all types of extracurricular activities, only sports and academic club participation have been related to better occupational status (having a career-path job and job autonomy) at 25–26 years of age (Eccles et al., 2003).

► Among men, having participated in high school athletics generates higher productivity and is directly linked not only to more years of education but also to higher wages. The National Longitudinal Study of Youth shows that men at an average age of 32 who had participated in high school athletics were paid 31% higher wages than those who had not participated. The National Longitudinal Study of the High School Class of 1972 shows that men at an average age of 31 who had participated in high school athletics were paid 12% higher wages than those who had not participated (Barron, J.M., et al., 2000).

- Persistent and engaged participation in organized activities, including sports, improves academic benefits.

► A Yale study of Latino and African American children in schools failing under the No Child Left Behind Act showed that children who participate in at least two to three hours a week of organized activities are most likely to show improvement on standardized achievement tests (Mahoney, Lord, & Carryl, 2005).

► “Engagement” in the activity also makes a significant difference (of as much as a third to a half a year) beyond duration of participation, in the degree of improvement in achievement levels (Mahoney interview).

2 The intellectual and academic benefits resulting from participation in organized sports activities are associated with, and may be influenced by, values and motivational beliefs and the promotion of life skills.

- Participating in sports may foster greater identification with and commitment to school and school values, which may account for the achievement effects (Marsh & Kleitman, 2003).

- Sports help children and youth feel more connected to school, attend school regularly, and connect with a more positive peer network (Eccles, Fredricks interviews).

- High school students who are participating more in sports experience higher parental expectations (Marsh & Kleitman, 2003).

- Evaluation of a structured sports-based youth development program with a child-development-based curriculum showed that all of the participating children transferred some of the skills they learned in the sports context to other contexts, including school; e.g., setting goals to get better grades (Weiss, 2006).

- Children participating in the sports-based youth development program perceived that their academic competence had improved each year (Weiss, 2006).

- Sports activities that take place in proximity to school are more likely to employ school personnel, creating an opportunity for children to feel more comfortable at the school, develop relationships with teachers and, especially when they have not been highly successful in academics, engage in something that they are good at (Epps, Larson, Simpkins, Zarrett interviews).

- Sports participation builds planning skills and provides the experience of failing and trying again (persistence); these experiences provide a learning process that can translate to feelings of greater possibility for achievement in the school setting (Granger, Larson, Simpkins, Zarrett interviews).

3 Participation in sports affects the development of children’s peer networks.

- In a study in a Southwestern urban community, high school youth participating in organized sports activities viewed sports as providing a place to meet other young people “who had at least one shared interest”; high school girls also found participation in sports as a way to break gender stereotypes, enhancing their sense of possibility (Crosnoe interview).

- By contrast, others suggest that, in addition to positive developmental effects and creation of social capital, participation in structured sports activity has an effect of its own: “Having more academically oriented peers does not explain away the significant effects of sports participation on any of these educational outcome measures” (Broh, 2002).

- Sports participation contributes significantly to youth identity, especially in high school.

► Sports participation helps create a social identity, a way that young people are perceived by their peers (Crosnoe, Eccles, Miller, Simpkins interviews).

- Some researchers have found that “jock identity” is associated with better grades, expectations of going to college, and engaging in more parties and drinking (Eccles interview). Others have found negative correlations between “jock identity” and achievement: female athletes reported higher grades than female non-athletes, but female and African American adolescents who identified themselves as “jocks” reported lower grades than those who did not. Jocks also reported significantly more misconduct (e.g., skipping school, cutting classes, having someone from home called to the school for disciplinary purposes, and being sent to the principal’s office) than non-jocks (Miller et al., 2005).

► Abuse of alcohol by adolescents who participate in competitive sports is a social phenomenon — that is, a function of the peer group with which the students are associated. Some studies also show that teens participating in sports report lower use of alcohol than those who are not involved in sports activities (Eccles interview; Fredricks & Eccles, 2006a).

- Some studies of working- and middle-class youth find that sports participation is linked to higher alcohol use (Barber & Eccles, 1999; Fredricks & Eccles, 2006).



In contrast, another study, of a pre-dominately African American sample, found that athletic participation was associated with lower drug and alcohol use for boys only (Fredricks & Eccles, 2006a).

- Sports participation socializes boys into traditional gender roles, while similar participation socializes girls into nontraditional gender roles (Miller, Barnes, Melnick, Sabo, & Farrell, 2002).

- Peer connections have more influence on boys’ achievement than on that of girls, despite the conventional view that girls are affected more by personal relationships than boys (Crosnoe, 2001).

4 Effects are as good if not better for low-income children and those who are perceived as different in some way, especially at older ages; race appears to have much less effect on academic outcomes than income.

- For children who are on the margin (e.g. poor, learning disabled, obese, gay), sports participation can diminish feelings of difference and isolation and increase the likelihood of attending college (Crosnoe interview).

- Participation in organized sports may provide an opportunity for low-income children that other youth take for granted; as a result, the effects on academics and grades are more pronounced for poor children (Crosnoe, 2002).

- Research drawing on data from the High School and Beyond survey indicates that sports participation is correlated with improved grades or test scores among African American and Latino students. One study found that while school-based activities were related to achievement for both African American and white youth, out-of-school activities were not related to achievement among African Americans (Marsh and Kleitman, 2002; Gerber, 1996).

- African American and Latina female athletes reported better grades in high school and greater involvement with extracurricular activities than female non-athletes, but these effects were more short-lived than for white girls, for whom high school sports participation was associated with higher rates of college attendance and completion (Sabo, Melnick, & Vanfossen, 1989).

“Parents in low-income communities are looking for something better. They understand that the schools their kids are going to aren’t the good ones. They want more for their children.”

—Sylvia R. Epps,
Decision Information Resources, Inc.

5 Parents, teachers and coaches play a significant role in children and youth’s participation, engagement and outcomes.

- Parents have more influence on younger children’s participation; however, they can also have more negative effects on whether or not children enjoy the activities and continue to participate in them by pushing too hard (Eccles interview). Young people who perceive both

greater support and lower pressure from their parents tend to have higher attraction and commitment to sports (Weiss, 2008).

- Family members can positively support children’s motivation by serving as role models, holding high expectations and providing opportunities in the home (Fredricks interview).

► Parents promote children’s social development and social skills by enrolling them in programs; these skills can improve children’s relationships with their teachers and their attention in the classroom, thereby improving their school performance (Simpkins interview).

► Parental factors, including beliefs, time involvement and equipment purchases, are linked to greater motivation and sports participation in their children (Fredricks & Eccles, 2005).

► Parents do more to encourage and support their male children to participate in sports, but when they do those things for their female children there are similar positive effects (Simpkins interview).

- Some immigrant families for whom sports and other organized after-school activities were not part of the cultural experience often do not understand the value of their children participating in structured non-academic activities (Simpkins interview). Immigrant parents are more likely than nonimmigrant parents to believe that boys are more interested in sports than girls are (Sabo & Veliz, 2008).

- Teachers of low-income children can play an effective role in encouraging participation (Epps interview).

“If kids are in the minority in their community and don’t feel welcome, they won’t go to the community center to participate in sports activities.”

—Sylvia R. Epps,
Decision Information
Resources, Inc.

- A recent study testing the impact of trained coaches on young athletes’ motivations and attitudes showed that athletes who played for intervention-trained coaches were more interested in improving their academic achievement than those who played for coaches who had not been trained in this cognitive-behavioral intervention focused on mastery (Smoll, Smith, & Cumming, in press).

6 Researchers have identified predictors of both participation and persistence in organized sports, including demographic characteristics of children and youth, youth perceptions of the value of participation, and characteristics of programs that are more likely to engage youth over a longer period of time.

- Children who participate in organized sports in elementary school are more likely to participate in sports in high school. Being part of a team and having fun, as well as parents’ decisions, drive children’s participation at younger ages (Simpkins interview). Girls enter sports at a later age than boys, and this may contribute to a greater likelihood that they will drop out of sports in middle school and high school (Sabo & Veliz, 2008).

- Adolescents from more affluent families are more likely to participate in organized activities than adolescents from low-income families (e.g., Fredricks & Eccles, 2006a;

- One of the strongest predictors of a child’s persistence in a program is the relationships between coaches and children (Weiss interview). Experimental intervention studies of participation in Little League show that well-trained coaches, not competition or win-loss records, promote persistent participation (Smith, Smoll, & Curtis, 1979). Research is also beginning to show the importance of positive staff interaction, supported by quality staff training, to children’s developmental outcomes in after-school programs (Pierce, Hamm, & Vandell, 1999).

Marsh & Kleitman, 2002; Simpkins, Ripke, Huston, & Eccles, 2005; Theokas & Bloch, 2006).

- Girls in suburban communities participate in sports at a similar rate to boys. However, urban and rural girls, low-income girls and girls from immigrant families all participate in sports at significantly lower rates than their male counterparts (Sabo & Veliz, 2008).

- Research indicates that Asian Americans and Latinos are less likely to participate in sports than other ethnic groups (Darling, Caldwell, & Smith, 2005; Shann, 2001; Davalos, Chavez, & Guardiola, 1999).

- Among older youth, participation in sports is more likely if they enjoy it, if they believe it will be good for their future, and if they see themselves as “athletes.” Participation also depends on the perceived costs (what youth might be “losing” by choosing to participate in sports) (Fredricks interview).

- Disparities in participation are more pronounced in activities, such as sports and lessons, that require financial investment (Bouffard et al., 2006; Simpkins et al., 2005).

- Predictors of engagement in an activity (not just participation) include a warm, positive climate with considerable peer-to-peer interaction; structured and organized programs that have clear plans for what children and youth will do (without being rigid or inflexible); and programs that have an orientation toward “mastery,” gearing assignments appropriately to children’s skill levels (Mahoney interview).

7 The range of available sports opportunities changes as children get older; participation also falls off as children age, especially among girls.

- Participation in community-based programs is highest in elementary school; as children move from elementary to middle school, participation increases in school-based programs and declines in community-based programs. As children progress to middle school and then to high school, sports opportunities become increasingly competitive (Simpkins interview).

- A ten-year study tracking African American and white girls from age 9/10 to 18/19 found a larger decline for African American girls than for white girls in participation in physical activities, with both groups experiencing large declines. By the age of 16 or 17 years, 56% of the African American girls and 31% of the white girls reported no habitual leisure-time physical activity (Kimm et al., 2002).

- High school boys receive 40% more chances to play varsity sports than girls (National Federation of State High School Associations, 2003). Boys experience a 10% decline in sports participation from middle school to high school, whereas girls experience a 23% decline in participation (U.S. Secretary of Health and Human Services & U.S. Secretary of Education, 2000).

- Girls in one state (Massachusetts) lag significantly behind boys in participation in organized school- or community-based sports teams; girls of color lag behind their white female peers in participation in organized sports teams (National Women’s Law Center & Harvard University School of Public Health, 2004).

8 Too many young people continue to lack sufficient opportunity to participate fully in and benefit from organized sports activities.

- One study shows that 50% of American children and youth do not participate in organized activities at least two days each week. Of a nationally representative sample of American kids who recorded their activities in time diaries, 50% participated in no organized activities on two randomly selected days (Mahoney, Harris, & Eccles, 2006).

“A great coach can change the trajectory of a young person’s life. All kids deserve that chance.”

—Lynne Lee, *Team-Up for Youth*

- Approximately 40% of 12–14 year olds regularly spend time taking care of themselves, with no adult present, during a typical week (Overturf Johnson, 2005; Cain & Hofferth, 1989; Casper & Smith, 2002); self-care is higher for children of working mothers (Brandon, 1999; Rodman & Pratto, 1987).

- Although the prevalence of self-care is greater among white and more affluent youth with college-educated parents, African American youth experience higher amounts of self-care during a week (Casper & Smith, 2002); a more recent analysis of low-income 10–14 year olds found that the poorer the children are, the higher the likelihood of self-care (Levine Coley, Morris, & Hernandez, 2004).

- In one recent study, three-quarters of children from white middle-class backgrounds participated in organized sports activities, while only 40% to 60% of low-income

children of color did so (Simpkins et al., 2005).

- Urban girls, especially girls of color, often face unique barriers to participation. Many have jobs in order to supplement family incomes, while others take care of siblings at home. These as well as cultural factors may contribute, among some ethnic groups, to weaker parental support for girls’ athletic participation (Place, 2004).

- Latino children get less physical activity than white children, explained in part because they report having fewer opportunities for safe outdoor play (Morgan et al., 2003).

- Girls who live the farthest from school were found to spend the least time on physical activity (Cohen et al., 2004).

- The CDC (1997) reported that overall physical activity is lower among residents of rural areas than in urban centers and ascribes part of the cause to rural Americans having fewer recreational opportunities and greater transportation problems.

IMPLICATIONS

Mounting evidence points to the educational benefits deriving from children’s and adolescents’ participation in organized and supervised sports. Our findings reinforce the importance of considering after-school activities, including organized sports, as opportunities for learning and development, with as much potential for impact on various developmental outcomes as schools.

What this approach implies is that the various elements considered in educational research should be the foci of attention in policy, practice and research on sports-based youth development. These elements include: after-school climate and environment, facilities and equipment, key personnel including program staff, coaches (paid or volunteer) and administrators, the quality of activity components, the roles and engagement of parents and other family members, the needs of children and youth participants of different ages, genders, incomes and cultures, and the conditions of the neighborhoods from which children come and where programs are offered. If we consider these elements, it will increasingly be possible to help children and their families find the right match for their developmental ages, interests and needs. Young people of different ages and from different backgrounds and cultural experiences may connect differently with various sports activities and programs structured in a variety of ways.

How Sports Can Contribute to Educational Success

Participation in organized sports can help children learn to:

- Regulate emotions
- Persevere in the face of failure
- Set goals and plan to meet them
- Manage time
- Take initiative
- Work in a team

These characteristics may have an impact on:

- School attendance
- Homework completion
- Sense of connection to school
- Knowledge of teachers and other school personnel
- Dropout rate
- Aspirations for higher education

Yet there remains no clear equation to describe the mechanisms contributing to achievement. While there is evidence, as identified earlier, of particular outcomes from sports participation, and hunches about how they emerge, the exact processes, singly or in combination, and what weight each of these may hold in influencing the outcomes remain essential elements of future inquiry.

Some of the mechanisms that require critical attention involve young people's own psychological processes, including learning to regulate emotions, persevere in the face of failure, set goals and plan to meet them, manage time, take initiative and work in a team. Sports participation may also enhance children's feelings of connection to their schools, and their knowledge of their teachers and other school personnel, boosting both their attendance and comfort levels in a focused learning environment. The health improvements and diversion from risky behaviors that emerge from physical activity and participation in organized sports — lower rates of depression and, in most instances, reduced use of alcohol, for example — may remove impediments to learning.⁵

Other mechanisms may be connected to the peer group engaging in the sports activity: their motivations, experiences and orientation toward success may influence what a child or teen takes from his or her participation and how it gets translated to an academic setting. The peers with whom children interact on the playing field may be more focused on educational goals and career aspirations.

Other processes may also be influential in enabling children and youth to transfer to educational environments the social and emotional development they achieve through playing organized and supervised sports. These have more to do with how parents or other adult caregivers view the sports opportunities for their children, the ways in which they provide encouragement and support, and the extent of their own participation in the activities.

Many out-of-school-time activities are organized and overseen by community programs or schools. How these sponsors facilitate and support the activities also contributes to the outcomes for participants. At a minimum, the sponsors affect the safety of the sports environment. They also affect the roles, preparation and sustainability of coaches and other adult participants who are critical to whether children participate regularly in, enjoy and learn from the experiences.

All of these mechanisms interact in a dynamic system, and consequently should be considered in relation to one another. While there is much yet to learn about this system and how to make sports-based youth development most effective for its participants, enough is known for us to identify a series of steps that can be taken to make these activities as effective as possible in fostering academic success.

⁵ In general, this report does not address the many positive health consequences of participation in physical activity and sports-based youth development. That is the subject of the next Team-Up for Youth report in this series.

RECOMMENDATIONS FOR PRACTICE, POLICY AND RESEARCH

Our recommendations cross three major categories that are critical to moving the sports-based youth development field toward a goal of improving educational outcomes for children and youth. The first two, program quality and equitable access to high-quality programs, are top priorities. Careful evaluation of intentional improvements made in the quality and access arenas, and application of the findings of these assessments, will continue to advance these programs' quality and stability and the likelihood that more children will participate and reap the benefits.

1 Strengthen the quality of programs to foster the attributes that lead to positive educational outcomes.

Connect sports-based youth development programs more deliberately to schools and learning.

- Require school attendance and/or performance and offer supports to help students meet these requirements.
- Explore collaborations with other programs or the inclusion of other components such as tutoring, creative writing or other academically oriented activities.
- Employ teachers and other school staff in sports programs and hold these programs at or near school sites.
- Create ways for coaches to serve as liaisons to the schools, either by having school staff work in the program or by establishing expected and regular interactions between coaching staff/volunteers and schools.

Create a conduit for trained, enthusiastic volunteer coaches and mentors to serve in low-income communities where they are needed most.

- Increase the number of volunteers in organized after-school sports programs through AmeriCorps, VISTA and other volunteer initiatives.

Ensure that coaches are well prepared and supported to work with the youth in their programs.

- Be clear about coaches' multiple roles, including as supporters of the school system's academic goals, as mentors for participating youth, and as advisors for parents.
- Train coaches in the principles of child and adolescent development, emotion regulation and theories of learning.⁶
- Communicate directly with schools about students' academic status and help students get academic help when needed.
- Invest in regular supervisory support for coaches to promote stability and continuity.

Organize sports activities in a way that encourages and supports sustained parent participation.

- Set games at times that parents are more likely to be available, such as on weekends.

What Research Tells Us About Good Practice

Organized sports programs that enhance educational success do the following:

- Connect more intentionally to learning
- Engage children in sports when they are young
- Develop strategies that support consistent participation and engagement
- Take place in safe environments
- Take place at or near school sites
- Train coaches, volunteers and program staff in child adolescent development and the characteristics of quality programs

- Regularly provide information to parents about available high-quality organized sports opportunities; ensure that information is responsive to parents' cultural and linguistic needs.
- Use technology to communicate regularly with parents.
- Encourage parents, including mothers, to become coaches.
- Hold year-end events for parents and their children to celebrate successes together; ensure that every young person is recognized for her or his participation.

Promote youth involvement in program design.

- Provide opportunities for children and youth to have a voice in determining the activities of interest to them.
- Support teens' capacity for independent decision-making while providing adult guidance.

- Give older youth increasingly responsible roles in the sports activities, including coaching younger children.
- Promote peer relationships and peer learning through group or team activities, including team decision-making.

Take steps to avoid risky behaviors.

- Directly address the increased risk of alcohol abuse among athletes by offering alcohol and drug education, creating an alcohol-free pledge or policy or other strategies.

2 Improve access to and sustained participation in high-quality programs particularly for underserved children and youth: girls, low-income children and youth of color.

Ensure that federal programs that support after-school activities are adequately funded and incorporate high-quality organized sports opportunities. Such programs include:

- 21st Century Community Learning Centers Program. This program supports the creation of community learning centers that provide academic enrichment opportunities during nonschool hours for children, particularly students who attend high-poverty and low-performing schools. The program allows schools and community-based organizations to offer students a broad array of enrichment activities, which can include sports.
- Carol M. White Physical Education Program (PEP). This program provides grants to local education agencies and community organizations for physical education, including after-school programs.

Increase the number of high-quality programs in low-income communities.

- Broaden the view of education to incorporate after-school sports and other activities as an essential component. Frame after-school programs as “extended learning” with choices available, including high-quality organized sports.
- In California, maximize the use of After-School and Safety Program (ASES) funding through school districts to provide sports-based youth development programs in the context of after-school programs. ASES-funded programs are required to offer opportunities for physical activity such as sports. Provide technical assistance through the California Department of Education to ASES

after-school sites, to enable them to comply with physical activity guidelines and incorporate sports-based youth development into their programs.

Place programs in sites that children and parents can reach easily and safely.

- Ensure that affordable, preferably free, school or public transportation is available to sports programs in order to return children and youth home after the programs are completed.
- Expand and improve or create new sports environments that protect children and youth from the risks of unsafe neighborhoods.

Address financial barriers that preclude participation by low-income children.

- Provide free participation or, if fees are required, make them minimal.
- If fees must be charged in order for programs to be sustainable, programs should offer and publicize scholarships, sliding fee scales, work opportunities and other strategies that make participation affordable for the children and teens of low-income families.

Recognize and address parents’ unique needs and values.

- Educate parents about the benefits of sports participation, particularly for girls. Make the case that participation in organized and structured activities is beneficial to child and adolescent development and that participation is more about learning skills and connecting to academics than about competition.
- Strengthen teachers’, staff’s and coaches’ sensitivity to parents’ cultural experiences, values and belief systems as a way to help parents see the benefits of their children’s participation in sports.
- Educate parents about what makes a quality program. Strategies may include regularly providing information highlighting effective programs, offering a checklist for parents identifying the components of quality programs, or developing a communitywide resource bank that enables parents to match their children’s needs and interests with high-quality programs.

Areas for Future Research

- Create models of quality at program, school district and citywide levels
- Identify how effective programs attract and retain youth of different genders, ability, race, family income and cultural backgrounds
- Study how coaches promote emotion regulation and academic success
- Design and evaluate specific interventions to promote persistence and engagement, with special attention to middle school girls
- Continue to examine the issues surrounding selection bias



- Engage parents through informational meetings and other outreach methods that encourage their attendance. Sessions that provide meals, child care and programs that engage the whole family in activities can provide useful inducements for parents and other family members to participate. Highlighting stories of children who succeed may provide useful images that help parents connect participation with results.

- Identify enrollment policies that will accommodate the mobility of low-income, minority and immigrant families.

Develop specific strategies to promote persistent and engaged participation.

- Design programs to promote continuity of participation over time.
- Develop strategies to keep girls from dropping out of sports activities. Focus should be placed on girls in middle school, with special attention to girls of color, who have the highest attrition rates.

3 Increase investment in research and evaluation as a means to improve program quality and opportunities for participation.

- Create and highlight models of quality at program, school-district and city levels and study and replicate them. Look at differences in populations in terms of what makes programs most effective in improving educational outcomes.
- Design research to study what coaches do to promote emotion regulation and academic success; follow the same line of inquiry as research on how teachers promote a positive learning climate.
- Evaluate programs with specific interventions designed to promote persistence and engagement in sports-based youth development programs, with special attention to middle school girls.
- Continue to examine the issues surrounding selection bias.
- Identify the characteristics of effective programs that enable them to attract and retain youth from groups with lower participation and higher attrition rates, such as girls, youth of color and youth in low-income communities.

⁴ The University of California at Irvine has developed an Afterschool Certificate program with a special sports component.

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APPENDIX

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ABOUT THE AUTHOR

Ann Rosewater provides consultation services to foundations, universities, not-for-profit and governmental organizations in strategic planning and policy development. Rosewater held several senior positions at the U.S. Department of Health and Human Services (HHS), including: regional director for the eight southeastern states, counselor to Secretary Donna Shalala, deputy assistant secretary for children and families, and deputy assistant secretary for human services policy. She was a member of the National Advisory Council on Violence Against Women and the National Advisory Committee on Services for Families with Infants and Toddlers, which designed the Early Head Start program. Among other activities she coordinated the Department's participation in the Federal Support to Communities initiative to maximize opportunities for children and youth in the non-school hours.

Prior to serving at HHS, Ms. Rosewater helped create and served as staff director of the Select Committee on Children, Youth and Families in the U.S. House of Representatives and as senior legislative assistant to Congressman George Miller. Ms. Rosewater has written extensively on child and family policy, child welfare, child and adolescent health and development, education, disability rights and long-term care, women's issues and comprehensive strategies to reduce urban poverty. Her recent publications include: *Pathways from Brain Research to Policy*; *Highlights from the National Summit on Children*; *Promoting Prevention, Targeting Teens: An Emerging Agenda to Reduce Domestic Violence*; and *Child Welfare Summit: Looking to the Future — An Examination of the State of Child Welfare and Recommendations for Action*. Ms. Rosewater is vice-chair of the board of the Juvenile Law Center.



ABOUT TEAM-UP FOR YOUTH

Team-Up for Youth believes in the power of sports to help children learn and grow — socially, emotionally and physically. We pioneer strategies to strengthen and expand after-school sports and physical activity programs that support the healthy development of young people living in low-income communities.

Through coaches, training, education, advocacy and research Team-Up for Youth creates opportunities for children and youth — girls as well as boys — to participate in the kinds of sports experiences that build their confidence and skills, connect them to mentors and role models, and improve their prospects in school and in life.



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