



October 2008

Go Out and Play

Youth Sports in America

A Women's Sports Foundation Research Report



Authorship and Acknowledgments

This report was co-authored by Don Sabo, Ph.D., and Phil Veliz, M.A. The study was developed through a collaboration between the Women's Sports Foundation and the Center for Research on Physical Activity, Sport & Health at D'Youville College, and conducted for them by Harris Interactive, Inc. Special thanks to Marjorie A. Snyder, Ph.D., for guiding the project, to Deana Monahan for her editorial expertise and to George DelGiorno for graphic assistance with the many tables in this report. The dedication and skills of Harris Interactive's youth research team—Dana Markow, Ph.D., Chris Moessner and Jay Oppenheim—are much appreciated. Thanks go to David Olson, Ph.D., for allowing use of the Family Adaptability & Cohesion Scale.

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Eisenhower Park, 1899 Hempstead Turnpike, Suite 400
East Meadow, NY 11554
Info@WomensSportsFoundation.org
www.WomensSportsFoundation.org
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Executive Summary

This study measures the nationwide participation rates of girls and boys in exercise and organized team sports. The central focus is on how the intersections among families, schools and communities are related to children's involvement and interest in athletics and physical activity. Some of the personal and social benefits associated with children's athletic participation are also identified and discussed. The athletic interests and involvements of girls and boys are examined from childhood through late adolescence, including entry into sport as well as drop-out patterns.

American families display a wide array of cultural, economic, racial and ethnic characteristics. Despite this diversity, all families have two things in common. First, they nurture children from infancy through young adulthood. Second, parents do not raise their children in isolation. Family life unfolds within an institutional web that includes schools, churches, community organizations, after-school programs, government, economic forces and—central to this study—sports. It is within this wider social matrix that children's athletic ability and interest in physical activity take shape and either blossom or dwindle.

The findings and conclusions in this report are based on two nationwide surveys. The Women's Sports Foundation commissioned Harris Interactive to complete a school-based survey of youth drawn from a random selection of approximately 100,000 public, private and parochial schools in the United States. The school-based survey method yields highly reliable results. The nationwide sample consists of 2,185 third- through 12th-grade girls and boys. In addition, phone interviews were conducted with a national cross-section of 863 randomly selected parents of children in grades 3 through 12. Parents were asked how they think and feel about their children's interest and involvement in sports and physical activity. African-American and Hispanic parents were over-sampled in order to deepen understanding of the needs and experiences of underserved girls, boys and their families.

This report confirms that sports are a resource for U.S. children as well as their families. Children's athletic participation was associated with higher levels of family satisfaction. Sports and physical activity were also linked with improved physical and emotional health, academic achievement and quality of life for children.

A complex picture of gender differences in athletic opportunities and physical activity emerges from this study. There is a nationwide gender gap in physical activity and sports involvement between girls and boys. The size of the gender gap, however, does not stretch uniformly across the country and age brackets. In many communities, girls show similar levels of athletic participation and interest as boys. In other communities, however, access to sport and physical activity for girls appears to be thwarted by economic disadvantages and inadequate school resources. Young urban girls, especially, have a narrower window of opportunity for becoming involved with sports than their male counterparts and girls from

suburban and rural communities. One in four ninth- to 12th-grade girls has never participated in organized or team sports in urban schools, compared to about one in six urban boys. In short, progress on the gender front in U.S. sports has been made, but it remains uneven, and it is often poor and mainly urban girls who are being left behind.

Some of the major findings documented by this study are summarized below within four main themes.

Participation In Sports And Physical Activity: The Gender Gap

1. A Gender Gap Exists in Sports and Physical Activity—But It Is Uneven

Girls generally are not as involved with sports and physical activity as boys. However, the gender gap is not uniform across the nation. Whereas similar rates of sports participation between girls and boys exist in suburban communities, urban and rural girls are less involved than their male peers. Variations in the gender gap in athletic participation often appear to be driven by economic disparities, race and ethnicity, and family characteristics. These variations strongly suggest that the girls' and boys' participation in sports and exercise is primarily shaped by access and opportunity.

2. Interest in Sports and Exercise Among Girls and Boys Is About Opportunity and Encouragement, Not Biology

Girls' and boys' interest in sports and exercise varies by grade level, school location and income level. In some communities boys and girls show similar levels of interest in sport, while in other communities, boys' interest levels are higher than those of girls. Parents very often feel that their daughters and sons have similar interest in sports, especially when their children are younger (third through eighth grades). In short, interest in sports can often vary more within genders than it does across genders. And finally, boys tend to overestimate their interest in sports, while girls lean toward underestimating their athletic interests. For example, 42% of third- to eighth-grade boys who are non-athletes said that "sports are a big part of who they are," compared to 16% of non-athletic girls. Female athletes, moreover, are often involved with several clubs and organizations outside sport, whereas male athletes focus more singly on sports.

3. The Gender Gap in Physical Education

Urban girls are the "have-nots" of physical education in the United States, with 84% report having no PE classes at all in the 11th and 12th grades. Rural girls in the same grades are not far behind with 68% reporting no PE classes. Across the country, young low-income children—both girls and boys—are underserved with regard to school-based physical education. Generally, more boys attend PE classes than girls, especially in urban and rural schools.

4. Girls Now Take Part in a Wider Array of Sports and Exercise Activities than Boys

Girls explore a wider array of sports and exercise activities than boys do, including traditional, recreational and newly emerging sports such as cheerleading, dance, double Dutch and volleyball. Boys focus more on traditional sports and exercise activities, which, most often, take the form of organized school and community sports.

5. Girls Have a Narrower Window of Opportunity in Sports

Girls enter sports at a later age than boys (7.4 years old compared to 6.8 years old). The widest gap between the age girls and boys enter sport appears in urban communities (7.8 and 6.9 years old, respectively). Girls also drop out sooner and in greater numbers than boys. Girls' late start may set them up for failure in sports during the middle-school years (sixth through eighth grades).

Sports and Family Life

1. Sports Are an Asset for U.S. Families, and Families Are a Resource for Young Athletes

Children's involvement with sports is associated with higher levels of family satisfaction. Youth sports can help build communication and trust between parents and children. Sports help parents and children spend more time together. The positive connections are particularly evident in dual-parent families, but they also resonate in single-parent families.

2. Many Parents Say Their Daughters Are Being Shortchanged

While a majority of parents say they want similar levels of athletic opportunity for their daughters and sons, many believe that their schools and communities are failing to deliver the goods. Many parents are aware that girls are getting fewer opportunities in sports and physical activity than boys are. More African-American and Hispanic parents feel schools and communities are failing their daughters.

3. More Dads Need to "Step Up to the Plate" to Mentor Young Female Athletes

Non-family members are the top two people girls mentioned as their mentors in exercise and sports—coaches and physical education teachers. For boys, in contrast, dads and coaches top the list of main mentors. Forty-six percent of boys and 28% of girls credit their father for teaching them "the most" about sports and exercise. While mothers and fathers provide similar levels of encouragement and support for both their daughters and sons, many girls may be shortchanged by dads who channel more energy into mentoring sons than daughters.

Children's Well-Being and Development

1. Sports Help Create Healthy, Well-Adjusted Children

Sports are a health and educational asset for U.S. girls and boys. Organized sports are associated with children's general health and body esteem, healthy weight,

popularity, quality of life and educational achievement. Female athletes often derive greater benefits from athletic participation than their male peers.

2. Participating in Organized or Team Sports Helps Enhance Girls' Quality of Life

Girls who do not currently participate in a team sport are less content with their lives than girls involved with sports. Sports involvement enhances the quality of life for girls.

3. The Benefits of Athletic Participation Unfold Long Before High School

Many of the social, educational and health benefits linked to sports participation begin during the elementary school years. The positive contributions of athletic involvement to youth development are especially visible among sixth- to eighth-grade girls and boys.

Diverse and Unrecognized Populations

1. Sports Are Racially and Ethnically Diverse, but Inequities Are Very Real

Youth sports are racially and ethnically diverse. Fifteen percent of all girls and 16% of all boys who participate in sports are African-American. Seventeen percent of female athletes and 15% of male athletes are Hispanic, and 8% of Asian girls and 12% of Asian boys play sports. And yet, proportionally fewer girls of color are involved with sports than white girls. Girls of color are also much more likely than their male counterparts to be non-athletes. The same discrepancies across racial and ethnic groups do not exist among boys. Girls of color are doubly hit by both gender and race discrimination in sport.

2. Children with Disabilities

About nine out of every 100 U.S. families have a child who has a disability that can interfere with sports and exercise. Most sports and physical activity programs are currently designed to meet the interests and needs of children without disabilities. Some sport leaders and educators assume that children with some kind of disability are not capable of being physically active or just not interested in sports. The findings in this study, however, show that children with special needs are interested in sports and exercise, and many of their parents want to see more programs offered in schools and communities. A gender gap in sports and exercise activity does exist among children with disabilities, and it is the boys who are less physically active than the girls. Finally, the exercise frequency of both girls and boys with disabilities declines more sharply than their counterparts without disabilities from the elementary through middle school and high school years.

3. Boys in Immigrant Families Are More Likely than Girls to Play Sports

This is the first study to gather some basic facts about athletic participation among children in immigrant families. Nearly a quarter (23%) of children have at least one parent born outside the United States. Compared to boys, girls in immigrant families report lower rates of athletic participation. Many immigrant parents also hold more traditional attitudes toward girls' and boys' interest in sports.

Policy Recommendations

This research report is designed to foster public discussion and policy debate over the state of girls' sports and physical activity in the United States. In order to fulfill its strategic research initiative, the Women's Sports Foundation seeks to unite and educate local and national nonprofit organizations, government agencies, schools and sport organizations that serve the interest of girls' health and empowerment through physical activity. A National Policy Advisory Board was created to review the findings of this study and to identify key policy recommendations. The members are recognized leaders from academic research, education, health and sport. See Appendix A for a list of their names and affiliations.

The findings in this study form an evidence-based foundation to help policymakers assess the current state of U.S. girls' and boys' physical activity and sports. The Center for Research on Physical Activity, Sport & Health has worked closely with the Women's Sports Foundation to prepare a list of eight policy recommendations intended to advance the health and well-being of both girls and boys through sports and physical activity. See the final section of this report.

Introduction

For decades before the passage of Title IX in 1972, most parents saw school- and community-based sports as an asset for their sons but not their daughters. Custom, gender stereotypes and men's traditional control of athletic organizations combined to keep girls outside the athletic opportunity mainstream. But the explosion of girls' athletic participation during the 35 years following Title IX demonstrated the vitality of their interest and ability in sports. Attitudes changed, gender stereotypes faded, and more parents wanted their daughters as well as their sons to pursue athletic dreams. Research during the 1990s showed that for both girls and boys, athletic participation favorably enhances children's health, self-image and educational achievement.¹ Public health officials now extol the preventive value of sports and physical activity as a key antidote for rising rates of obesity and its related maladies.

This study combines two nationwide surveys in order to take the pulse of U.S. girls' and boys' involvement with sports and physical activity. The primary focus is on how gender influences who plays, who benefits, and how sports and physical activity influence children's lives and well-being. The findings reveal who is being included and sustained under the "big tent" of sport and who is being left outside. Economic disparities, where girls and boys go to school, family characteristics, and race and ethnicity enter into children's experiences with sports.

Two guiding concepts informed the design of this study. First, sport is a major institutional theater for youth development in the United States. Literally tens of millions of children's lives are touched by sports and related exercise activities. Second, sport is not a "stand-alone" component of children's lives and development. Sports are part of a larger convoy of social support that includes family, schools, community, church-based organizations, nonprofits and networks of supportive adults that can profoundly inform children's lives, identities and physical well-being. A chief goal of this study is to better understand how these interfaces work so

that the resource of sports can be more effectively channeled through the realms of family, education, public health, youth development and the institution of sport itself.

The Women's Sports Foundation serves to advance the lives of girls and women through sport and physical activity. The Foundation regularly undertakes research to this end. The findings of this study are made publicly available in order to foster better understanding of sports and physical activity as a real or potential resource for U.S. children. The report is also intended to be a touchstone for future research, particularly in those areas in which topics are being covered for the first time. Policy recommendations appear in Section X of the report. A detailed summary of the design components, sample characteristics, methodological procedures, measures and data analyses appears in Appendix B.

Part I: Participation in Team or Organized Sports

More children are involved with team or organized sports today than ever before in American history. They participate in schools, after-school programs, playgrounds, community-based leagues, travel teams, YMCAs and YWCAs, commercial facilities and programs through their churches. The findings below reveal that differences between girls' and boys' athletic participation are related to a variety of factors including gender, age, economic disparities, race and ethnicity, and school location.

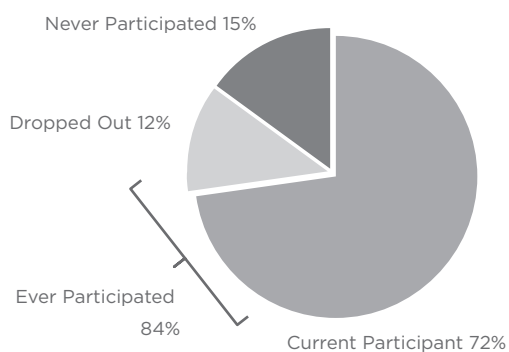
Sport captures the energies and imaginations of tens of millions of girls and boys. An estimated 7,342,910 children participated in high school sports during the 2006-2007 school year.² The number of girls exceeded 3 million for the first time, and 54% of all students enrolled in high school participated in a sport of some kind. But little is known about the extent of athletic participation among U.S. children in the years before high school. How many third- to fifth-grade children, for example, participate in an organized or team sport in their school or community? Where do children play sports? Do similar numbers of pre-teen girls and boys play sports at school, in community programs or within church-based leagues?

Girls, Boys and Athletic Participation: The Student Survey

The student survey asked children to report how many organized or team sports they played during the past year, whether in a school or community setting. Nearly three-quarters of youth reported playing an organized or team sport. See Table I-1. Fully 84% were currently playing or were a past participant when asked. Finally, 15% said they have never participated in a sport.

Nearly equal numbers of girls and boys reported currently playing organized and team sports (69% and 75%, respectively). See Table I-2 (on following page). High percentages of U.S. children were involved with at least one sport across all grade levels. Participation rates varied a great deal, however, by grade level and type of community. When considering students involved with at least one sport, for example, participation was most prevalent among suburban elementary school students and also among children in urban middle schools. See Table I-3 on following page. And yet, in urban communities, only 59% of third- to fifth-grade girls were involved with sports, compared to 80% of boys. The widest participation gap between high school girls and boys also occurred in urban communities (59% and 68%), yet this

Table I-1: Participation in Organized and Team Sports



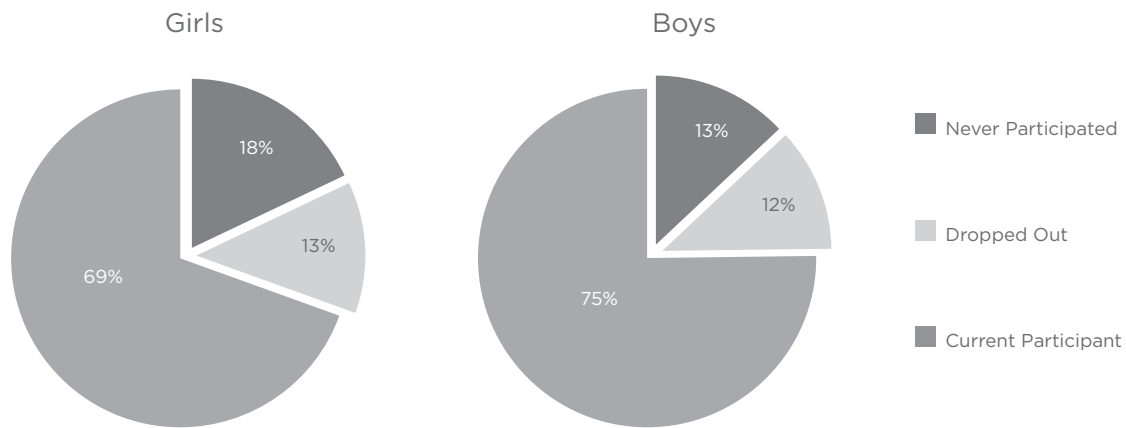
Current Participant: Student has played on one or more organized or team sports in the past 12 months.

Dropped Out: Student played on one or more teams in the past, but has not played in the past 12 months.

Never Participated: Student has never played on an organized or team sport.

[Merged base: All respondents — Total (N = 2,185) and Ever Played — Total (N = 1,848)]

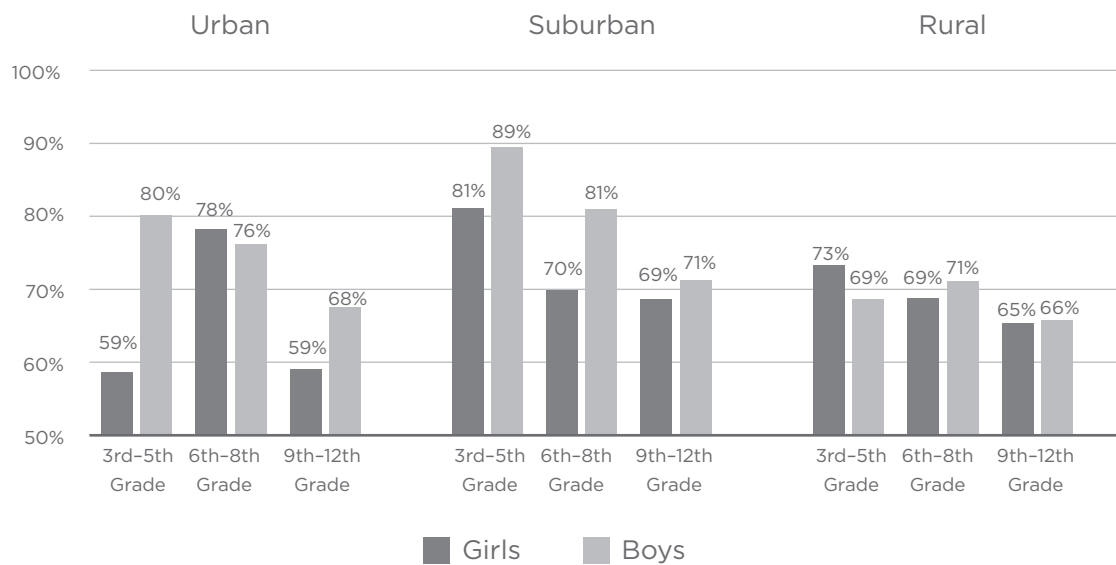
Table I-2: Participation in Organized and Team Sports



Total Girls (n = 1051), Total Boys (n = 1081).

T-test comparing gender and students who have never participated in sports. $t = -3.038^{**}$, $p = .002$, $df = 2130$.

Table I-3: Percent of Students Who Are Involved in at Least One Organized Sport



T-tests comparing gender and athletic participation by grade and size of place.

3rd-5th Grade - Urban: $t = 3.929^{***}$, $p < .001$, $df = 273$; Suburban: $t = 1.56$, $p = .119$, $df = 189$; Rural: $t = -.704$, $p = .482$, $df = 206$.

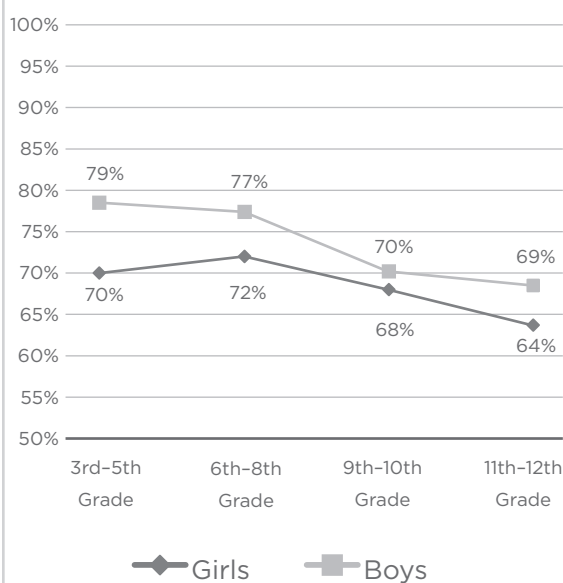
6th-8th Grade - Urban: $t = -.290$, $p = .772$, $df = 186$; Suburban: $t = 2.364^{**}$, $p = .019$, $df = 334$; Rural: $t = .311$, $p = .756$, $df = 129$.

9th-12th Grade - Urban: $t = 1.122$, $p = .264$, $df = 159$; Suburban: $t = .595$, $p = .552$, $df = 520$; Rural: $t = .086$, $p = .932$, $df = 149$.

difference was not statistically significant. In rural communities, similar percentages of girls and boys across all grade levels played at least one sport.

Table I-4 provides another perspective of how girls' and boys' participation in sports varies across grade levels. Girls surveyed began playing sports later than boys, with eight in 10 boys involved in third-fifth grades (79%), but only 70% of girls. While both girls' and boys' participation tapered off in high school, more boys remained involved with team sports longer. By the end of high school, 69% of boys and 64% of girls were actually playing sports. The flipside, however, is that 13% of girls and boys have never played any sport at all.

Table I-4: Current Organized/Team Sport Participation Rate, by Grade and Gender



T-tests comparing gender and current participation in team sports by grade.

3rd-5th Grade: $t = 2.530^*$, $p = .012$, $df = 671$.

6th-8th Grade: $t = 1.569$, $p = .117$, $df = 653$.

9th-10th Grade: $t = .509$, $p = .611$, $df = 474$.

11th-12th Grade: $t = .981$, $p = .327$, $df = 355$.

Extent of Involvement with Sport

Among students who were involved with organized or team sports during the past year, one-third played on three or more teams. See Table I-5 on following page. Overall, boys were more likely than girls to be “highly involved athletes” (playing three or more sports, 31% versus 19%), while girls were more likely than boys to be “moderately involved athletes” (playing one or two sports, 50% versus 44%). See Table I-6 on following page.

In order to gauge the rates of athletic participation among all third- to 12th-grade children in the United States, we included non-athletes as well as moderately involved and highly involved athletes. On one hand, as the comparisons in Table I-7 (on page 12) show, girls outnumbered boys as moderately involved athletes at every grade level. On the other hand, the moderately involved male athletes outnumbered their highly involved peers at every grade level. In short, within each gender, “moderation” was more common. At the same time, across all grade levels, boys were more likely than girls to be highly involved athletes.³

Finally, the largest numbers of U.S. girls and boys who participated in at least one sport lived in suburban communities. Rural communities had the lowest proportion of all U.S. athletes for both girls and boys. See Table I-8 on page 12.

Involvement with sports varied not only by gender but also by school location and grade level. See Tables I-9 and I-10 on pages 13 and 14. Among third- to fifth-graders, for example, urban girls were more likely to be non-athletes than their suburban and rural counterparts (41% versus 19% and 26%). When the percentages of non-athletes at different grade levels are compared, more girls were found to be on the sidelines except in rural elementary schools. Among urban elementary school children, boys were half as likely to be non-athletes as girls (20% and 41%, respectively).

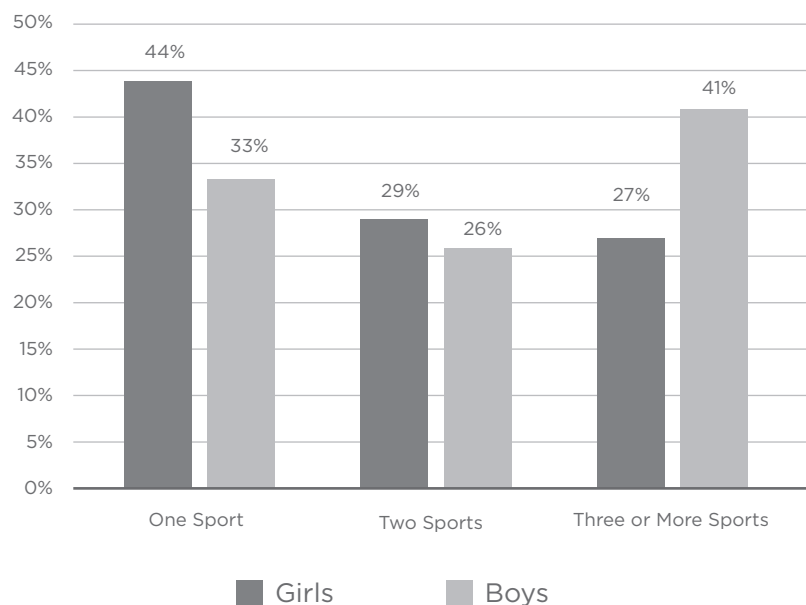
Table I-5: Athletic Involvement Among Current Participants

Number of Organized or Team Sports Played on in Past 12 Months

	Moderately Involved		Heavily Involved
	One Team	Two Teams	Three or more Teams
Total	38%	27%	34%
Grades 3-8	35%	26%	39%
Grades 9-12	44%	31%	26%

[Base: Currently Plays Organized or Team Sports - Total (N = 1,564) = 1-2 Teams (N = 1,028) + 3+ Teams (N = 536); 3rd-8th Grade (N = 901); 9th-12th Grade (N = 663)]

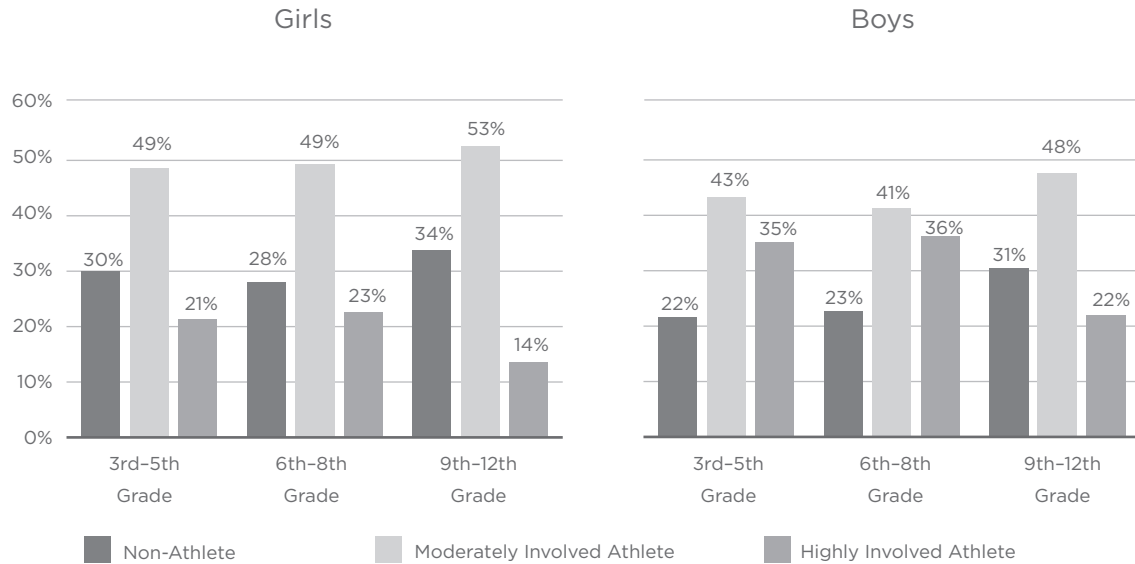
Table I-6: Number of Organized or Team Sports Played During the Past 12 Months, by Girls and Boys Who Are Currently Involved in Sports



T-tests comparing gender and sports participation.

One Sport: $t = -4.393^{***}$, $p < .001$, $df = 1554$; Two Sports: $t = -1.388$, $p = .165$, $df = 1554$;
Three or More Sports: $t = 5.840^{***}$, $p < .001$, $df = 1554$.

Table I-7: Involvement in Sports, by Gender and Grade Level



T-tests comparing gender and sports participation by grade.

3rd-5th Grade - Non-Athlete: $t = -2.53^*$, $p = .012$, $df = 671$; Moderately Involved Athlete: $t = -1.425$, $p = .155$, $df = 671$;

Highly Involved Athlete: $t = 4.061^{***}$, $p < .001$, $df = 671$.

6th-8th Grade - Non-Athlete: $t = -1.569$, $p = .117$, $df = 653$; Moderately Involved Athlete: $t = -2.101^*$, $p = .036$, $df = 653$;

Highly Involved Athlete: $t = 3.818^{***}$, $p < .001$, $df = 653$.

9th-12th Grade - Non-Athlete: $t = -1.026$, $p = .305$, $df = 832$; Moderately Involved Athlete: $t = -1.507$, $p = .132$, $df = 832$;

Highly Involved Athlete: $t = 3.241^{***}$, $p = .001$, $df = 832$.

Table I-8: Percent of Students Participating in Organized Sports, by Gender and School Location

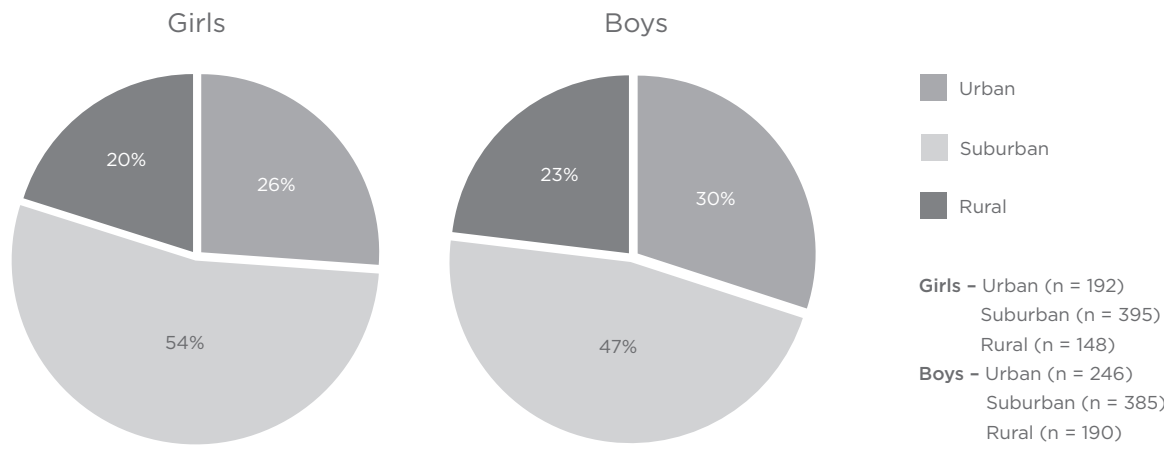
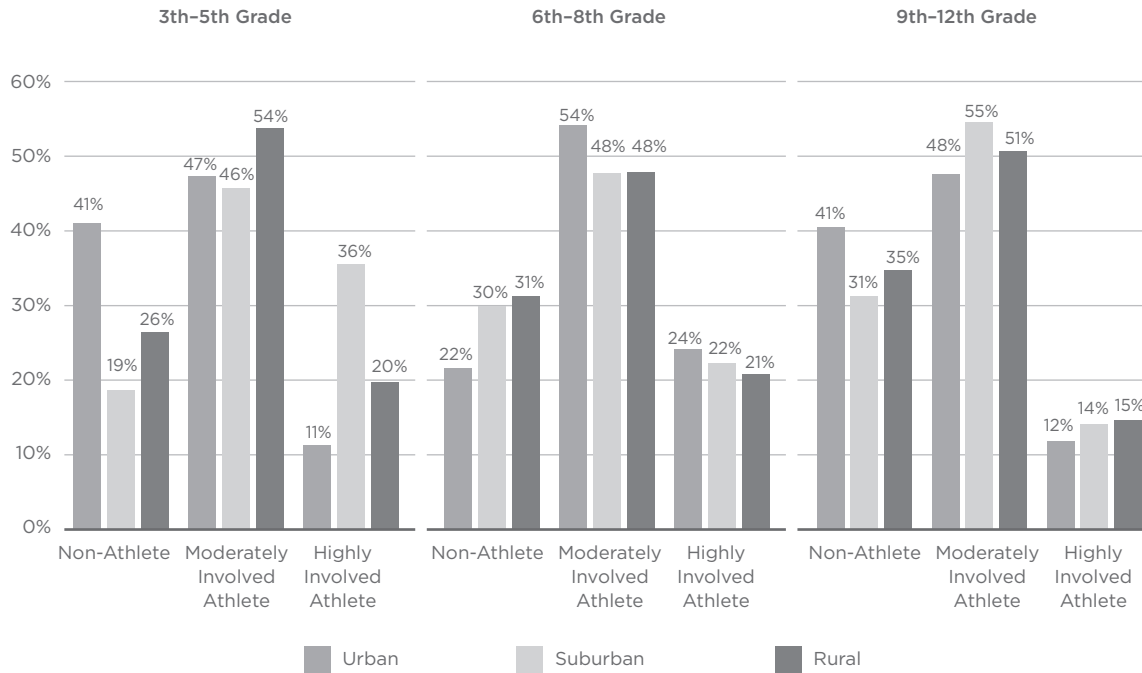


Table I-9: Girls' Involvement in Sports, by Grade Level and Type of Community



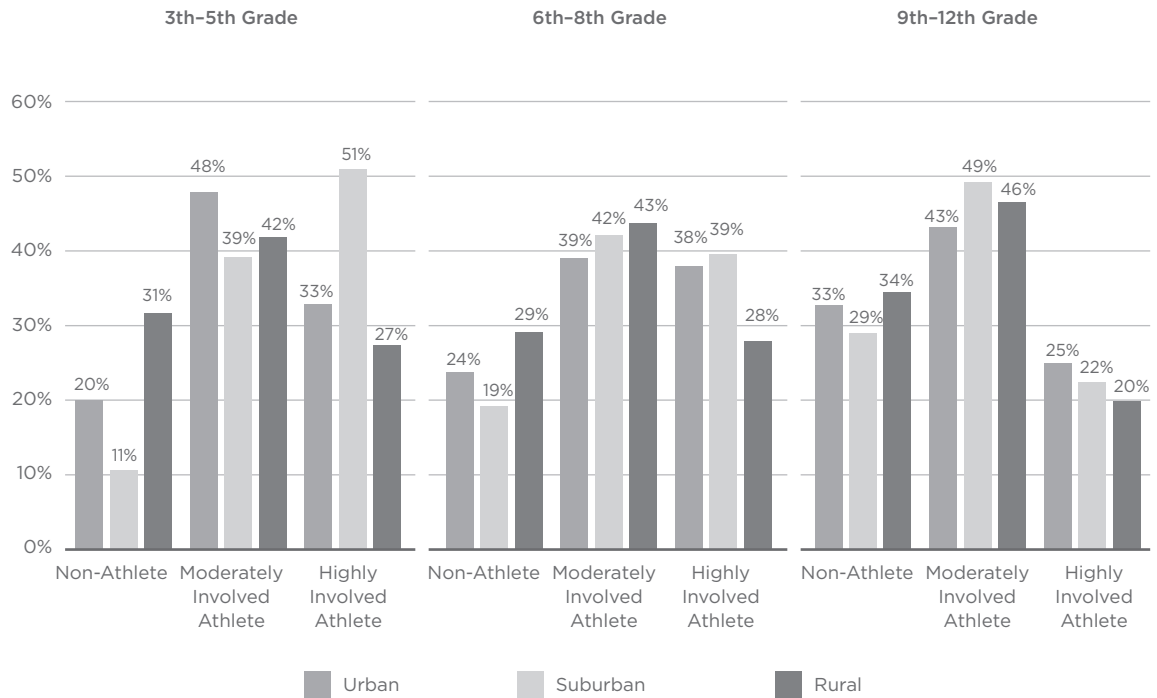
F-tests comparing differences in sports participation and type of community by grade.

3rd-5th Grade - Non-Athlete: $F(2, 326) = 7.804^{***}$, $p < .001$; Moderately Involved Athlete: $F(2, 326) = .617$, $p = .512$; Highly Involved Athlete: $F(2, 326) = 10.928^{***}$, $p < .001$.

6th-8th Grade - Non-Athlete: $F(2, 311) = 1.104$, $p = .333$; Moderately Involved Athlete: $F(2, 311) = .419$, $p = .658$; Highly Involved Athlete: $F(2, 311) = .140$, $p = .870$.

9th-12th Grade - Non-Athlete: $F(2, 417) = 1.375$, $p = .254$; Moderately Involved Athlete: $F(2, 417) = .708$, $p = .493$; Highly Involved Athlete: $F(2, 417) = .200$, $p = .818$.

Table I-10: Boys' Involvement in Sports, by Grade Level and Type of Community



F-tests comparing differences in sports participation and type of community by grade.

3rd-5th Grade - **Non-Athlete:** $F(2, 340) = 6.660^{***}$, $p = .001$; **Moderately Involved Athlete:** $F(2, 340) = 1.037$, $p = .356$; **Highly Involved Athlete:** $F(2, 340) = 6.652^{***}$, $p = .001$.

6th-8th Grade - **Non-Athlete:** $F(2, 338) = 1.518$, $p = .221$; **Moderately Involved Athlete:** $F(2, 338) = .226$, $p = .767$; **Highly Involved Athlete:** $F(2, 338) = 1.654$, $p = .193$.

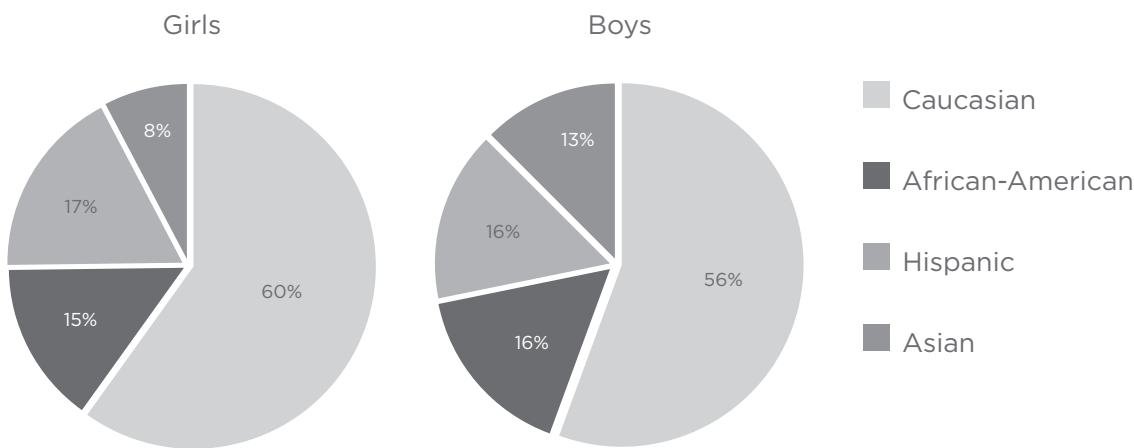
9th-12th Grade - **Non-Athlete:** $F(2, 410) = .496$, $p = .609$; **Moderately Involved Athlete:** $F(2, 410) = .420$, $p = .657$; **Highly Involved Athlete:** $F(2, 410) = .297$, $p = .743$.

Race and Ethnicity

Racial and cultural diversity in the United States has been spurred by recent decades of immigration. The profile of racial and ethnic participation among children in sports reflects the changing face of America. Table I-11 shows the distribution of four racial and ethnic groups among all U.S. children who reported currently participating in one or more sports. Comparable percentages of African-American and Hispanic children played sports. This may be the first study to measure athletic participation among Asians. Asians comprised 8% of all female athletes and 12% of all male athletes. The largest discrepancy between highly involved female and male athletes was among Asians (9% and 35%, respectively).

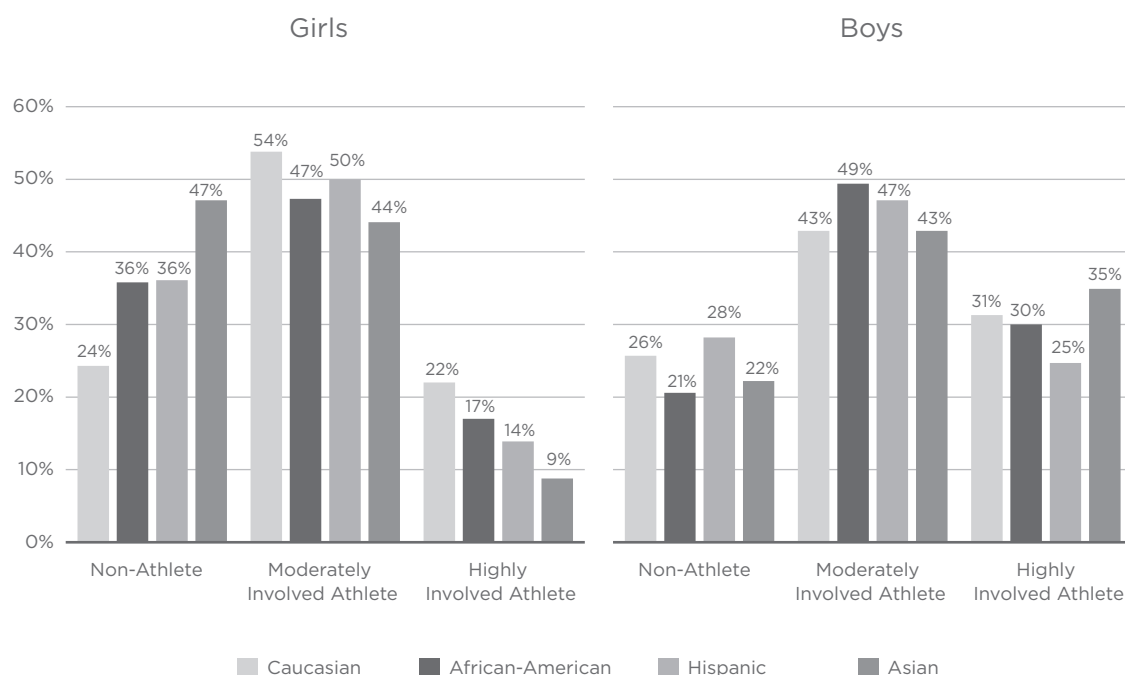
Table I-12 (on following page) documents the full spectrum of athletic involvement within each of the four main racial and ethnic groups. Asian girls had the highest percentage of non-athletes (47%), more than double their male counterparts (22%). More than one in three African-American and Hispanic girls were non-athletes (36% for both), compared to one in four white girls (24%). Regardless of race, more girls were moderately involved with sport, whereas more boys were highly involved athletes.

Table I-11: Percent of Students Participating in Organized Sports, by Race and Ethnicity



Girls – Caucasian (n = 425); African-American (n = 106); Hispanic (n = 124); Asian (n = 55).
Boys – Caucasian (n = 435); African-American (n = 127); Hispanic (n = 123); Asian (n = 98).

Table I-12: Athletic Involvement, by Gender and Race



F-tests comparing athletic participation by race.

Girls – Non-Athlete: $F(3, 1017) = 9.425^{***}$, $p < .001$; Moderately Involved Athlete: $F(3, 1017) = 1.445$, $p = .228$; Highly Involved Athlete: $F(3, 1017) = 4.635^{**}$, $p < .01$.
Boys – Non-Athlete: $F(3, 1038) = 1.023$, $p = .381$; Moderately Involved Athlete: $F(3, 1038) = .929$, $p = .426$; Highly Involved Athlete: $F(3, 1038) = 1.275$, $p = .281$.

Community Income Level, Race and Ethnicity

The level of economic resources within a community impacts many facets of life, ranging from unemployment levels and crime rates to SAT scores and the availability of healthcare services. Children's athletic opportunities are also shaped by the economic conditions of the communities in which they live and go to school. Several findings show that the community income level can influence children's athletic opportunities. The "community income level" was measured by determining the median

family income within the U.S. census tract that each of the participating schools in the student survey was located.

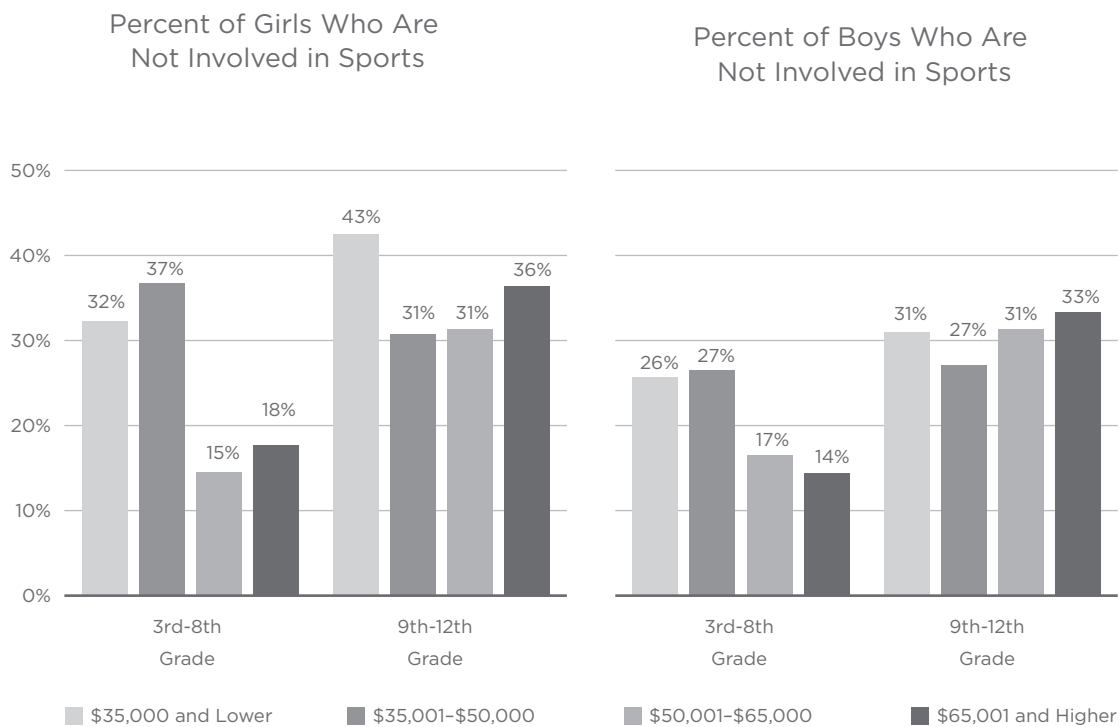
Surprisingly large numbers of girls and boys reported being involved with sports despite varying economic conditions in their communities. But children's level of athletic involvement, especially during the years before high school, was related to economic disparities. See Tables I-13a and I-13b on following pages. Among third- to eighth-grade girls, the percentages of non-athletes doubled between the two lower and two higher community income levels.

The same pattern held for boys. Girls were generally less likely to be involved with sports than boys, but the gender differences became muted in communities with higher median incomes.

Community income level was also significantly related to high levels of involvement with sports among third- to eighth-graders for both girls and boys. The linkage is plain to see: As economic resources increased, so also did the percentages of highly involved female and male athletes.

The interplay of race, gender and economic disparities with children's athletic involvement is illustrated in Table I-14a (on page 19). For both white girls and white boys the percentages of highly involved female and male athletes grew as family median income increases. At the same time, highly involved male athletes outnumbered their female counterparts (except in the highest income bracket among white children).

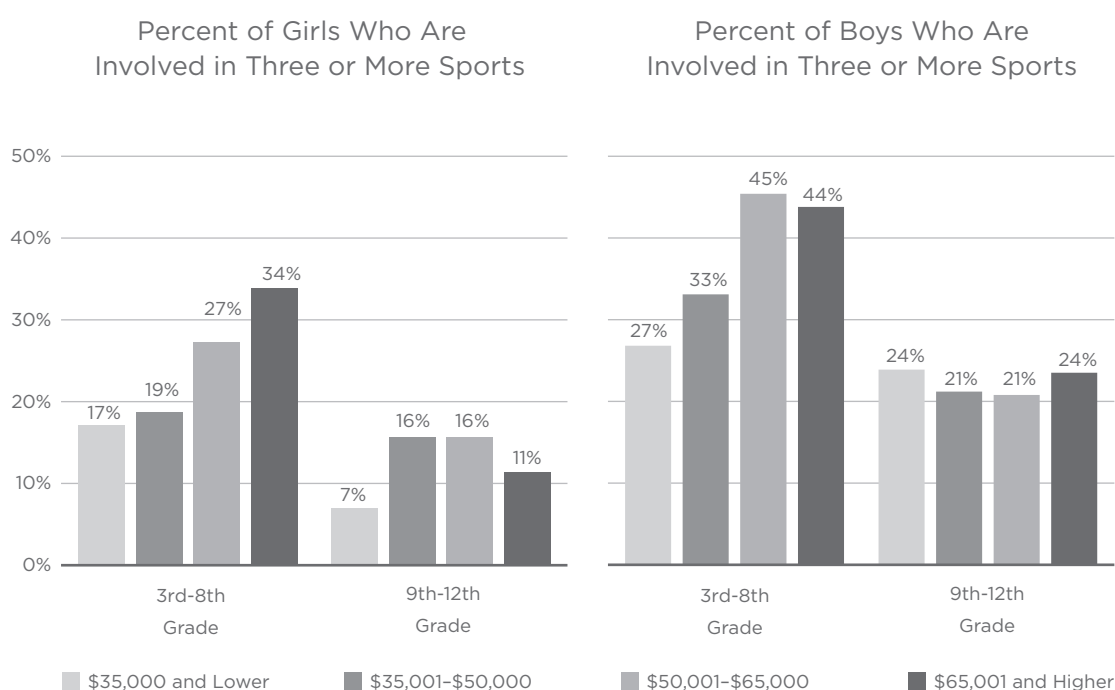
Table I-13a: Non-Involvement in Sports, by Gender and Community Income Level



Chi-Square tests to compare differences between percent of not involved in sports and Community Income Level.

Girls - 3rd-8th Grade: Chi-Square (3, 603) = 21.405***, $p < .001$; 9th-12th Grade: Chi-Square (3, 420) = 3.902, $p = .272$.
Boys - 3rd-8th Grade: Chi-Square (3, 674) = 11.591**, $p < .01$; 9th-12th Grade: Chi-Square (3, 414) = .707, $p = .872$.

Table I-13b: High Involvement in Sports, by Gender and Community Income Level



Chi-Square tests to compare differences between percent of students involved in three or more sports and community income level.

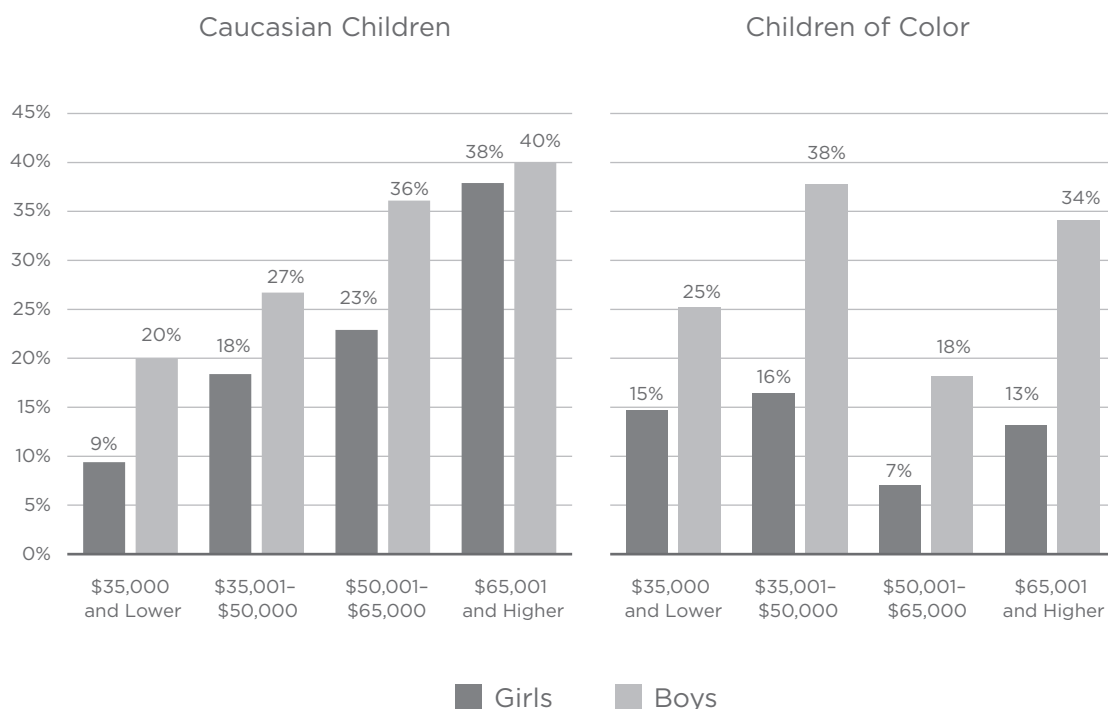
Girls – 3rd-8th Grade: Chi-Square (3, 605) = 14.503**, $p < .01$; 9th-12th Grade: Chi-Square (3, 419) = 4.566, $p = .206$.
Boys – 3rd-8th Grade: Chi-Square (3, 674) = 15.22**, $p < .01$; 9th-12th Grade: Chi-Square (3, 414) = .478, $p = .924$.

Among children of color, once again boys outnumbered girls as highly involved athletes across all the income groups. For girls of color, however, the percentages of highly involved female athletes declined in the upper-middle and well-to-do income categories (\$50,000–\$65,000 and above \$65,000). In short, high involvement with sports among white children was more typical if they came from privileged backgrounds, i.e., wealthier, more educated parents and more affluent communities. The opposite was true among girls of color. Children of color from lower income brackets were more likely than white

children to be highly involved with sports. But fewer girls of color from well-to-do families were highly involved with sports. In summary, gender equity existed for highly involved white athletes from the above-\$65,000 income group, yet girls of color from all income levels showed lower rates of participation in U.S. youth sports than their male counterparts.

Finally, the lack of economic resources in a community takes its greatest toll by eroding children's life chances in sport during their formative years (third through eighth grade). This is a very important

Table I-14a: Highly Involved Athletes by Race, Gender and Income



Chi-Square tests comparing differences among the percent of students participating in three or more sports and the median income level of the school community.

Caucasian - \$35,000 and Lower: Chi-Square (1, 134) = 2.972, $p = .085$;

\$35,001-\$50,000: Chi-Square (1, 470) = 4.656*, $p < .05$; \$50,001-\$65,000: Chi-Square (1, 337) = 6.942, $p < .01$;**

\$65,001 and Higher: Chi-Square (1, 205) = .095, $p = .758$.

Non-White - **\$35,000 and Lower: Chi-Square (1, 404) = 6.873**, $p < .01$;**

\$35,001-\$50,000: Chi-Square (1, 233) = 13.827*, $p < .001$; \$50,001-\$65,000: Chi-Square (1, 101) = 2.956, $p = .086$;

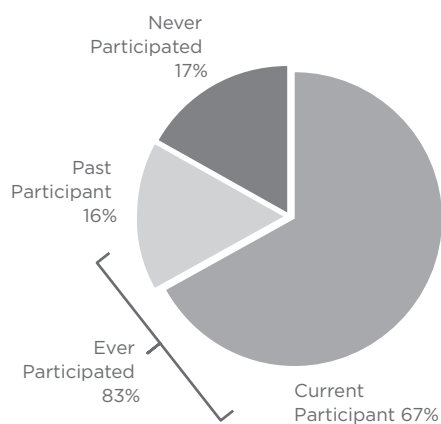
\$65,001 and Higher: Chi-Square (1, 143) = 8.214, $p < .01$.**

observation for two reasons. First, it shows that much attrition from sports and physical activity occurs in childhood, particularly during the middle school years. Second, sport drop-out is more common among urban girls who, demographically, are more likely to be poor. (See Section VI of this report for data and discussion of gender and sport drop-out.)

Girls, Boys and Athletic Participation: The Parent Survey

Parents were asked, "During the past 12 months on how many organized or team sports has your daughter (or son) played?" Two-thirds of parents (67%) reported that their children were "currently playing" on an organized or team sport. See Table I-14b on following page. The gender comparison depicted in Table I-14c (on following page), however,

Table I-14b: Participation in Organized and Team Sports



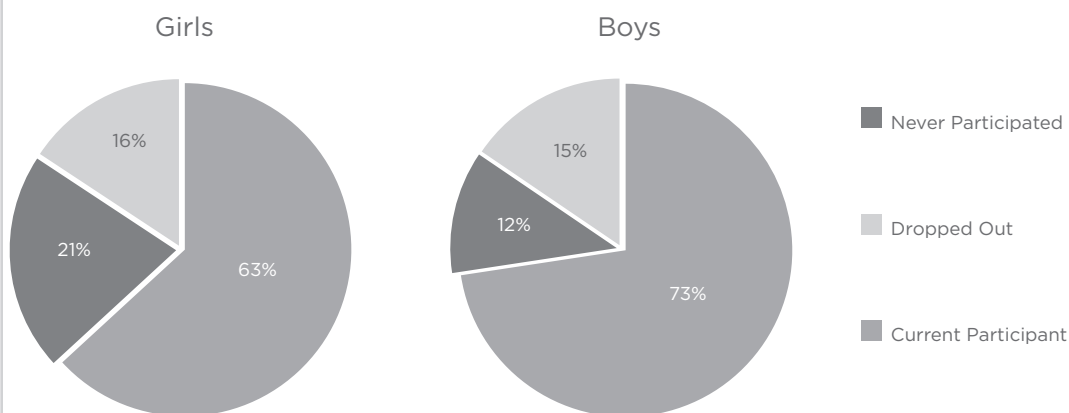
Current Participant: Child currently plays in one or more organized or team sports. During the past 12 months.

Past Participant: Child played on one or more teams in the past, but has not played in the past 12 months.

Never Participated: Child has never played in an organized or team sport.

[Merged base: All Respondents - Total (N=863) and Ever Played - Total (N=280)]

Table I-14c: Participation in Organized and Team Sports by Gender



Chi-Square tests comparing participation and sports by gender. Chi-Square (2, 864) = 14.103***, p = .001.

shows that 73% of boys and 63% of girls played on one or more organized or team sports during the past year. In contrast, roughly equal percentages of girls and boys (15% and 16%, respectively) played on a team in the past, but had not participated during the previous 12 months. Finally, more daughters (21%) than sons (13%) were said to have “never played” organized sports.

The parent survey results also revealed that two-thirds (65%) of children participated on one or more team sports. On average, children played on 2.1 teams. See Table I-15.

Some significant differences emerged between the athletic participation rates of daughters and sons. First, daughters were more likely to be non-athletes than sons (37% and 28%, respectively). Second, whereas 51% of daughters were moderately involved with sports (one or two teams per year), sons edged out daughters as highly involved participants (21% versus 17%). See Table I-16.

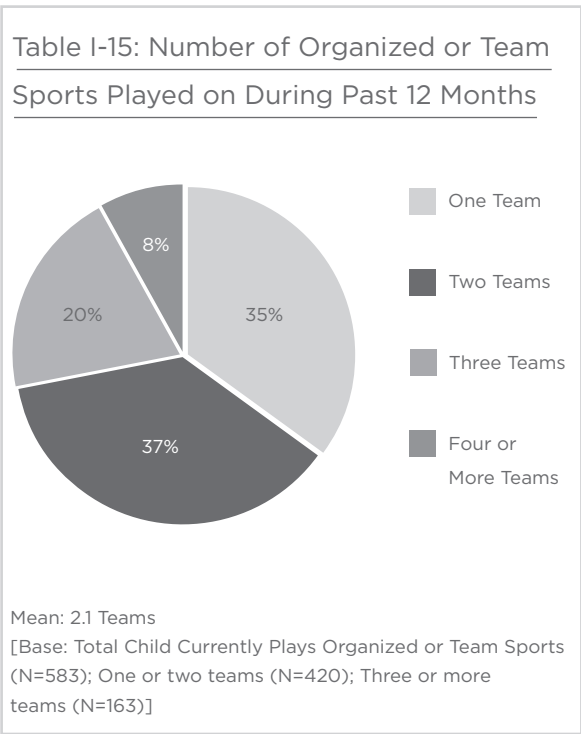
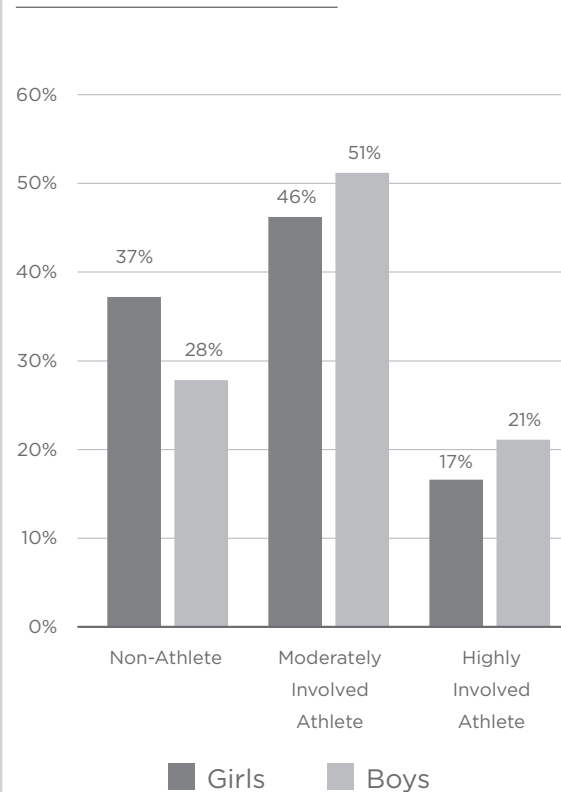


Table I-16: Children’s Athletic Participation, by Gender

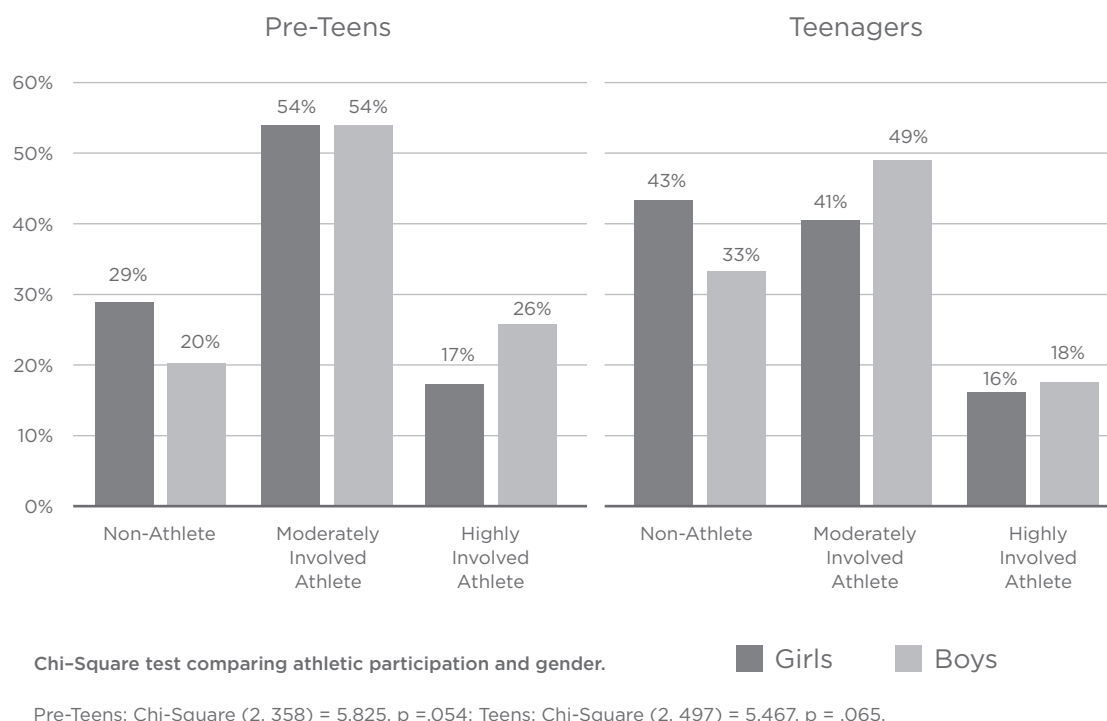


Chi-Square test comparing athletic participation and gender.

Chi-Square (2, 854) = 9.191,** p =.01.

Age was related to shifting rates of athletic participation for daughters and sons. See Table I-17 on following page. The percentage of female non-athletes was greater than that of their male counterparts among both the pre-teen and teenage subgroups (29% and 20%, and 43% and 33%, respectively). Indeed, 43% of parents indicated that their teenage daughters played no organized team sports during the past year, compared with one-third of teenage sons. Among pre-teens, equal percentages of female and males were moderately involved athletes. Finally, the overall disparities between non-involved and highly involved athletes were slightly more marked among the adolescents.

Table I-17: Athletic Involvement and Gender, by Age



Economic Disparities and Family Type

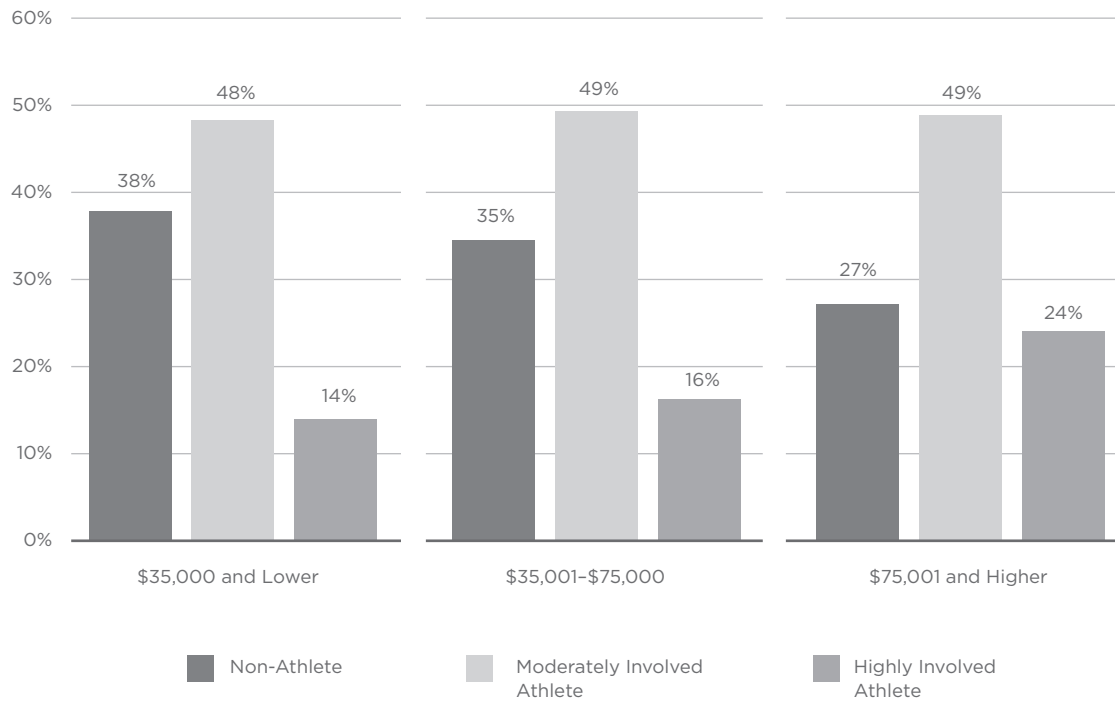
Economic disparities and race/ethnicity were tied to gender inequities in athletic participation. Table I-18 (on following page) breaks down children's athletic participation by family income. While 38% of children from low-income families were non-athletes, only 27% of children from high-income families were uninvolved. The wealthiest parents reported the greatest percentage of highly involved athletes. In contrast, about half of children were involved with one or two sports per year across all three income levels.

The athletic participation rates of daughters and sons also differed at lower family income levels but not higher income levels. No statistically significant gender differences were found in both middle-income and high-income families. In low-income families,

however, as Table I-19a (on page 24) shows, 49% of daughters were non-athletes, compared to 27% of sons. Furthermore, sons were more likely than daughters to be moderately involved athletes (56% versus 40%) as well as highly involved athletes (17% and 11%).

In addition, the athletic participation rates of daughters and sons did not significantly differ in dual-parent families. Table I-19b (on page 25) depicts nearly identical rates of athletic participation for daughters and sons. In single-parent families, however, daughters were significantly more likely than sons to be non-athletes (59% and 23%, respectively). Daughters comprised lower percentages of moderately involved and highly involved athletes. Indeed, sons in single-parent families were four times more likely than daughters to be highly involved with sports (28% and 7%, respectively).

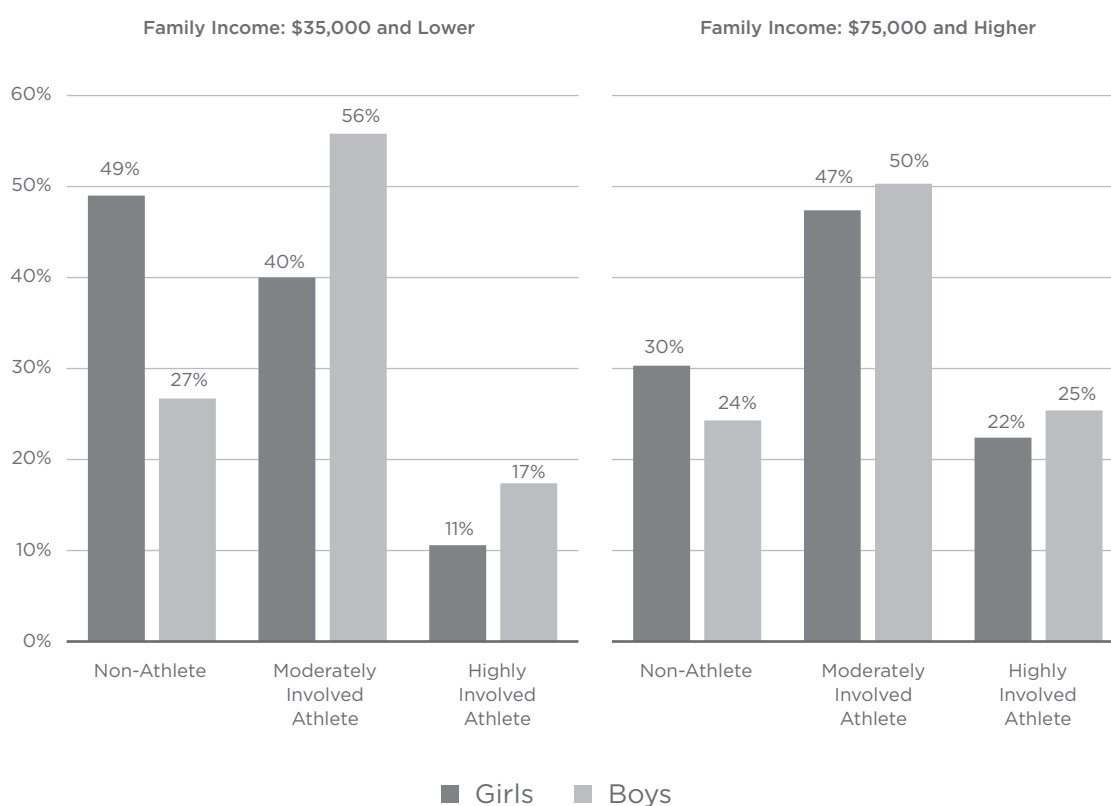
Table I-18: Children's Athletic Participation by Family Income



Chi-Square test comparing family income and children's sports participation.

Chi-Square (4, 774) = 12.579*, $p < .05$.

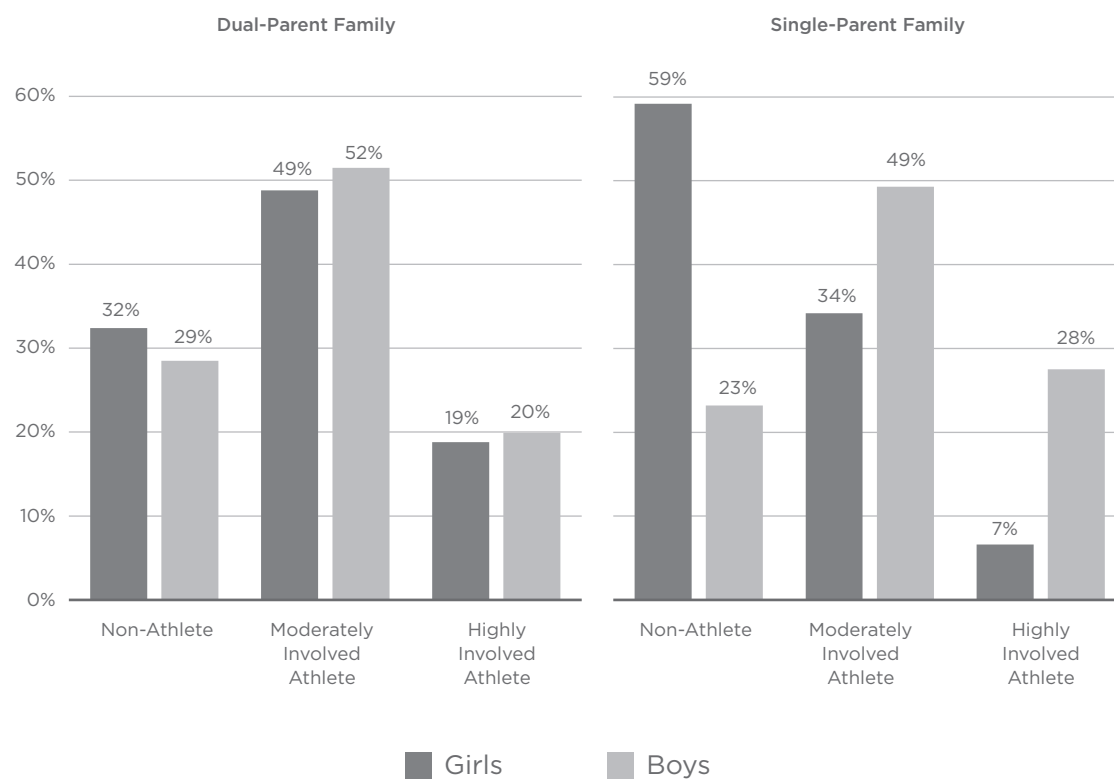
Table I-19a: Children's Athletic Participation and Family Income by Gender



Chi-Square test comparing gender differences in athletic participation by family income.

\$35,000 and Lower: Chi-Square (2, 171) = 9.439**, $p < .01$; **\$35,001-\$75,000:** Chi-Square (2, 278) = 2.248, $p = .325$; **\$75,000 and Higher:** Chi-Square (2, 325) = 1.473, $p = .479$.

Table I-19b: Athletic Participation in Dual-Parent and Single-Parent Families by Gender of Child



Chi-Square test comparing gender differences in athletic participation by family structure.

Dual-Parent Family: Chi-Square (2, 707) = 1.231, $p = .540$; Single-Parent Family: Chi-Square (2, 145) = 22.735***, $p < .001$.

The Gender Gap in Urban Communities

Gender differences in athletic participation are influenced by the types of communities in which families live and, most often, where children attend school. A profile of athletic participation for all children across urban, suburban and rural communities is illustrated in Table I-20a. Urban schools had the highest percentage of non-athletes (39%). Rural schools had a greater proportion of highly-involved athletes (27%) compared to urban and suburban schools (14% and 18%, respectively). But in relation to gender differences, this overall pattern turns out to be somewhat misleading.

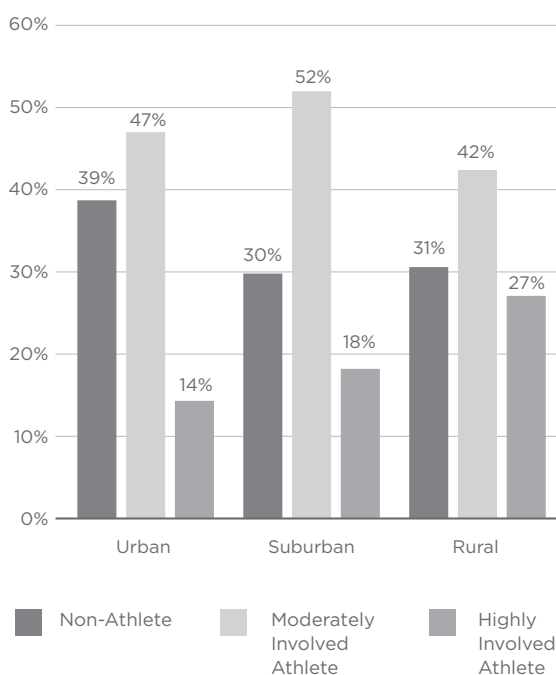
Table I-20b (on following page) depicts the rates of athletic participation between daughters and sons in suburban and rural schools. The athletic participation rates of girls and boys in suburban schools were almost identical, and the gender differences in athletic participation in rural schools did not attain statistical significance. In contrast, almost twice as many daughters as sons in urban schools were not involved with any sports (55% and 26%, respectively), and similarly, sons outnumbered daughters as both moderately involved and highly involved athletes. In summary, gender equity in athletic participation has been achieved in many suburban communities, whereas disparities still exist in varying degrees in urban and rural communities.

Where Children Play Sports

Most existing information about where children play organized and team sports focuses on school sports among ninth- to 12th-graders. Little is known about where children play sports before they get to high school or the activities adolescents pursue outside high school settings. Information from both the student and parent surveys creates a basic picture of where U.S. girls and boys of different ages participate in sports.

Parents named the various places their child played sports, so multiple sites could be identified. While 62% pointed to schools, substantial numbers identified

Table I-20a: Athletic Participation for All Children, by Type of Community



Chi-Square tests comparing differences in athletic involvement and type of community.

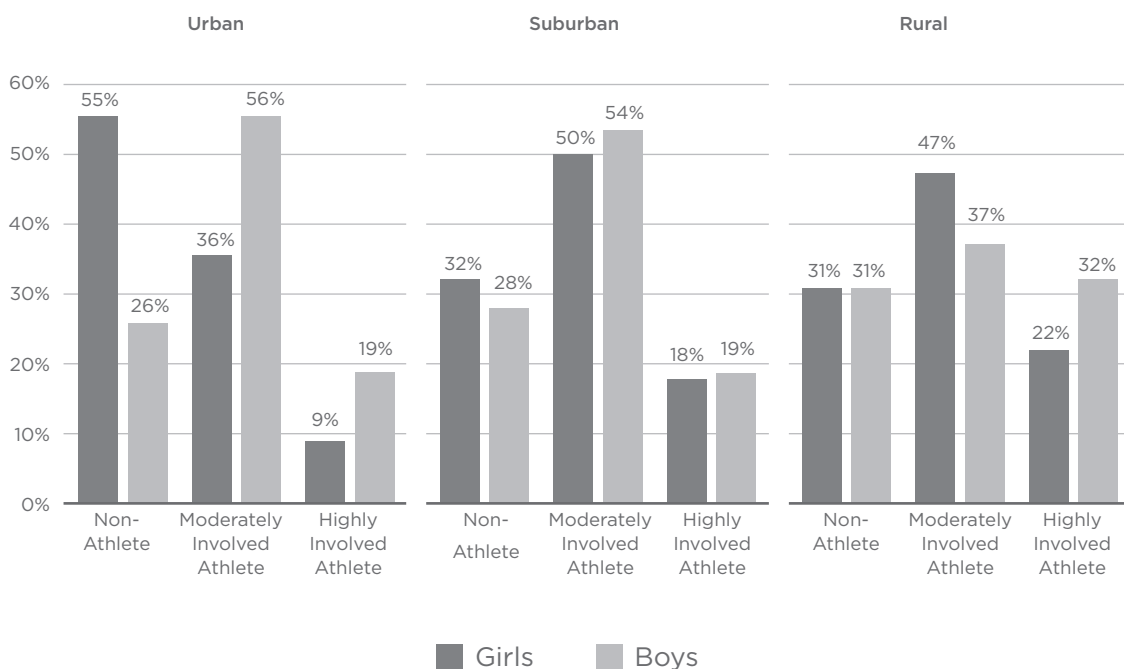
Urban (n = 230); Suburban (n = 456); Rural (n = 170)

Chi-Square (4, 856) = 15.091, p < .01.**

other locations. Younger children, in contrast, played sports at community centers or programs more often than high school children. As children get older, they were more apt to participate in schools. See Table I-21a on page 28.

The student survey also uncovered some gender differences with regard to where children play sports. Students were asked where they “most often play an organized or team sport?” On one hand, the percentage of girls who participated in school sports increased as they moved from elementary grades

Table I-20b: Athletic Participation and Community, by Gender of Child



Chi-Square tests comparing differences in athletic involvement and gender by type of community.

Urban: Chi-Square (2, 229) = 21.324***, $p < .001$; Suburban: Chi-Square (2, 456) = 1.013, $p = .603$;

Rural: Chi-Square (2, 169) = 2.601, $p = .272$.

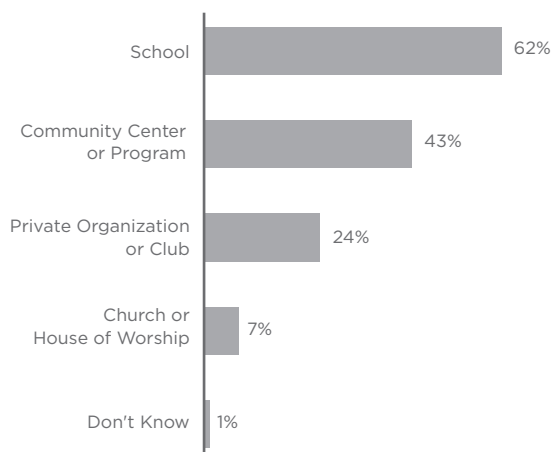
through middle-school and high school (i.e., from 13% to 39% to 55%). See Table I-22 on page 29. The same trend existed across grade levels among boys, but it was not as steep (i.e., 12% to 33% to 48%).

On the other hand, participation in after-school programs for both sexes stayed the same across grade levels, but involvement “someplace else” decreased markedly as children grow older. (We assume that “someplace else” includes community centers or leagues, private or commercial organizations and church-based programs.) Here the participation trends for both girls and boys were

downward, but boys more frequently played sports someplace else than girls during both the elementary school and high school years.

Where girls and boys played sports also varied across communities. See Tables I-23a, I-23b on I-23c on pages 30-32. The third- to fifth-grade children played sports most frequently “someplace else”—especially in suburban communities (88%) and urban communities (63%). This could mean that more athletic opportunities exist for girls outside the schools. But when third- to fifth-grade girls’ rates of involvement “someplace else” were compared with boys’ rates in

Table I-21a: Where Parents Say Their Children Play Organized or Team Sports

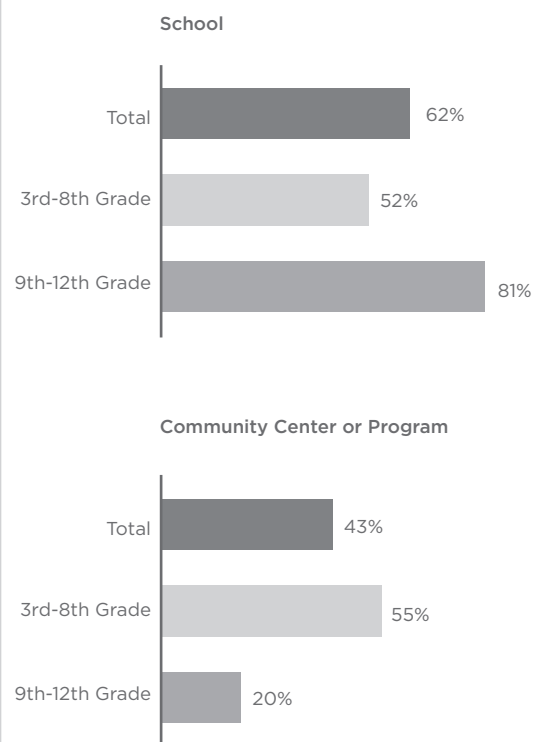


[Base: Child Currently Plays Organized or Team Sports (N = 583)]

these same communities, boys clearly participated at higher rates than girls. It may be, therefore, that younger girls are more likely than their male peers to gravitate toward school-based or after-school sports programs because of personal or family preferences. Or it might also be that community centers and leagues, private and commercial organizations or church-based programs are not reaching as many girls as boys.

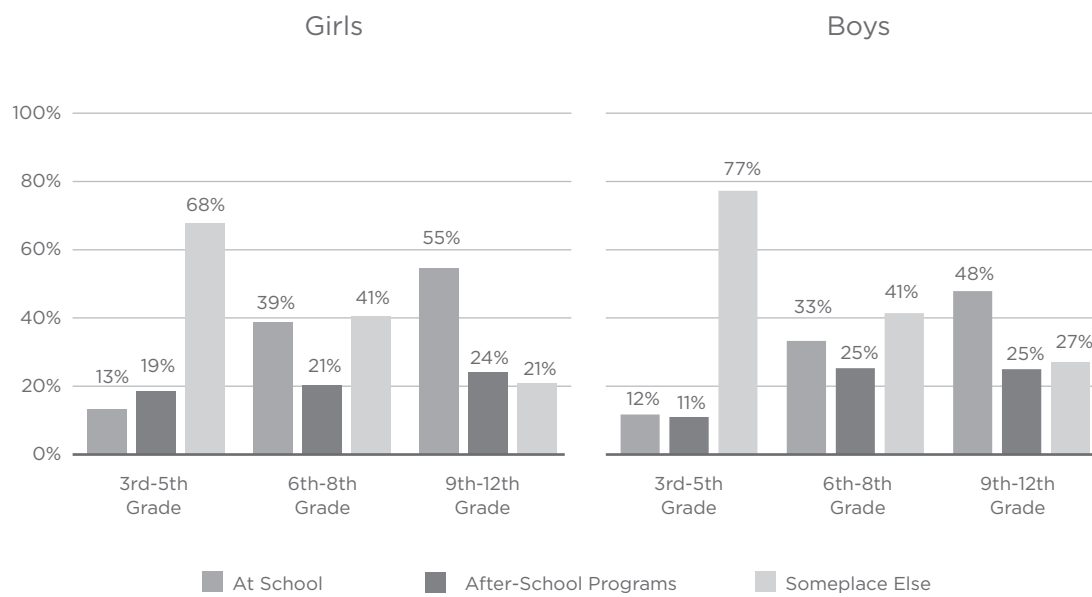
Lots more children played sports at school in sixth through eighth grades. At the same time, participation in after-school programs and “elsewhere” increased for both girls and boys. Finally, among high school students, an even greater shift occurred toward involvement in school-based sports with accompanying declines elsewhere.

Table I-21b: Where Parents Say Children Play Organized or Team Sports, by Grade Level



[Base: Child Currently Plays Organized or Team Sports (N = 583); 3rd-8th Grade (N = 363); 9th-12th Grade (N = 220)]

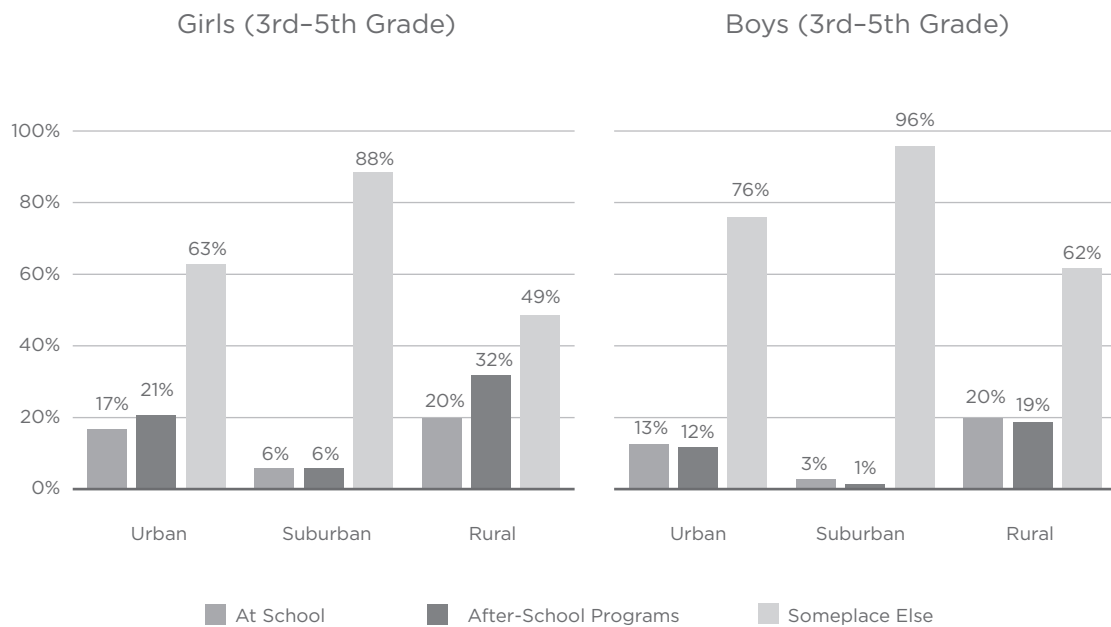
Table I-22: Where Students Play Sports, by Gender and Grade Level



Chi-Square test comparing gender and where students play sports by grade.

3rd-5th Grade: Chi-Square (2, 495) = 6.671*, $p < .05$; 6th-8th Grade: Chi-Square (2, 485) = 2.214, $p = .331$;
 9th-12th Grade: Chi-Square (2, 545) = 3.322, $p = .190$.

Table I-23a: Students Report Where They Play Sports,
by Grade Level and Type of Community

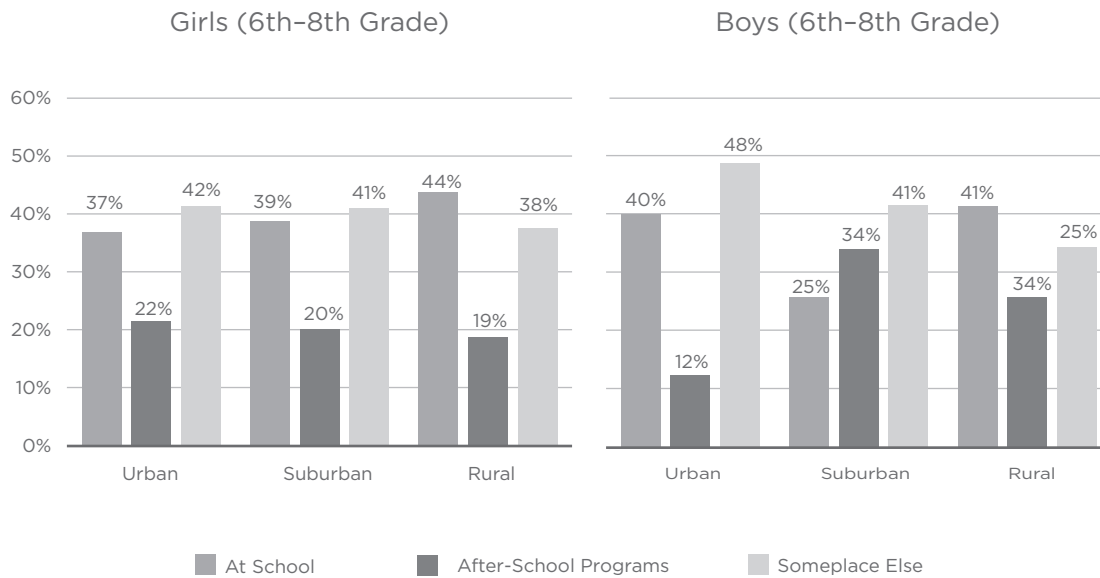


Chi-Square test comparing differences in where kids play sports and type of community they live in by grade and gender.

3rd-5th Grade Girls: Chi-Square (4, 230) = 29.601***, $p < .001$;

3rd-5th Grade Boys: Chi-Square (4, 264) = 24.857***, $p < .001$.

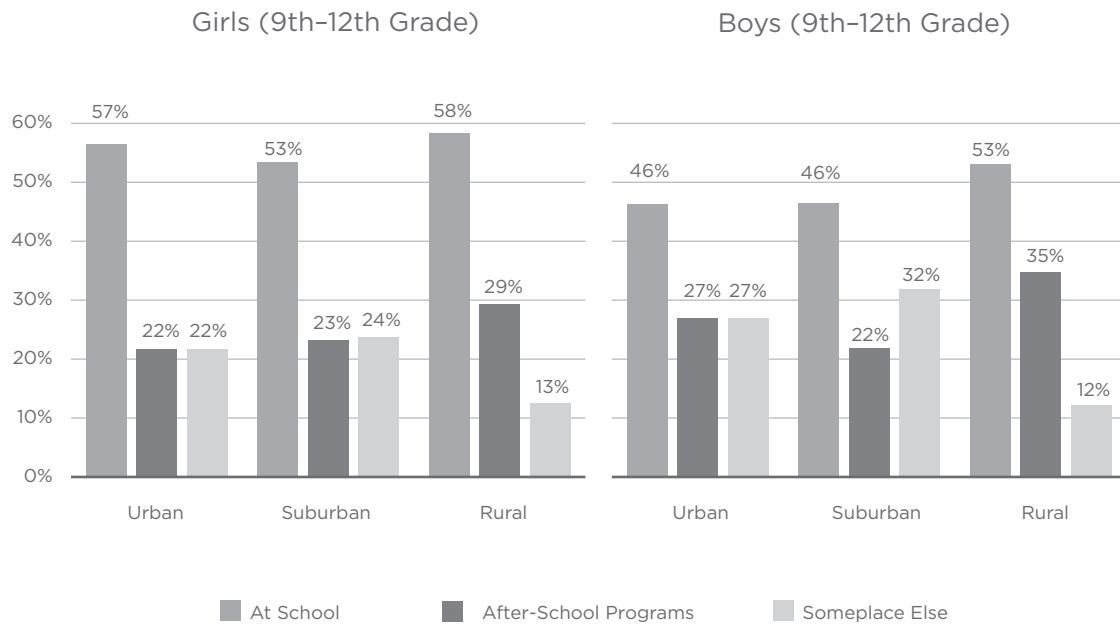
Table I-23b: Students Report Where They Play Sports,
by Grade Level and Type of Community



Chi-Square test comparing differences in where kids play sports and type of community they live in by grade and gender.

6th-8th Grade Girls: Chi-Square (4, 226) = .443 p = .979; 6th-8th Grade Boys: Chi-Square (4, 262) = 14.617**, p < .01.

Table I-23c: Students Report Where They Play Sports,
by Grade Level and Type of Community



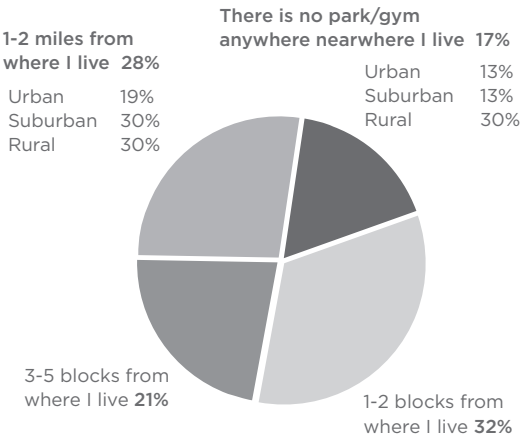
Chi-Square test comparing differences in where kids play sports and type of community they live in by grade and gender.

9th-12th Grade Girls: Chi-Square (4, 263) = .542, p = .979; 9th-12th Grade Boys: Chi-Square (4, 280) = 8.426, p = .077.

Proximity to a Park or Gym

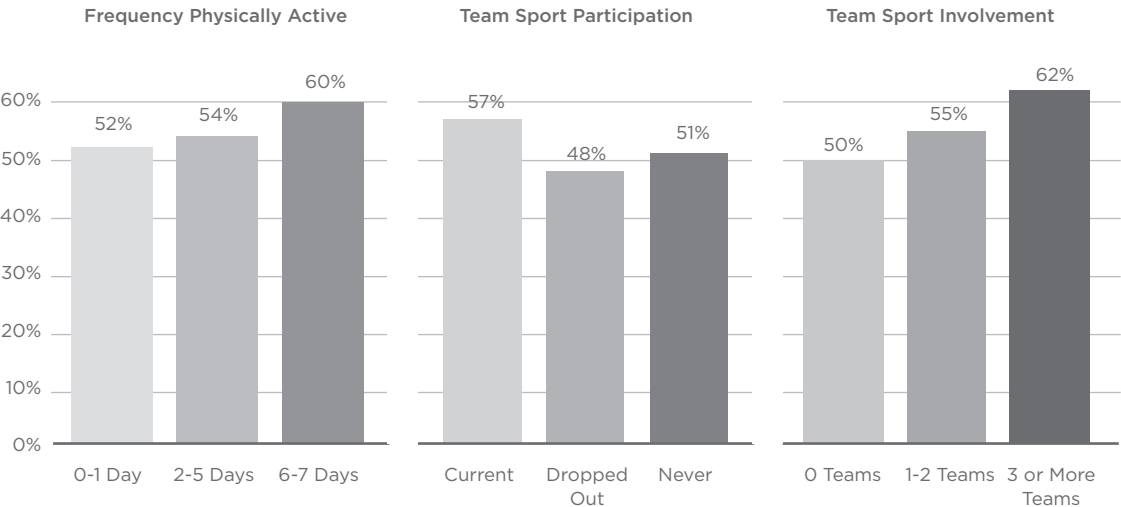
Half of children surveyed reported they lived within five blocks of a park or gym, although one in 10 urban and suburban students said they did not live anywhere near one, and an additional 30% lived over a mile away. For these children, schools played an especially important role in providing opportunities for physical activity. See Table I-24. Living in close proximity to a park or gym has benefits: Children who exercised more frequently, played a team sport or were heavily involved in team sports were more likely to live near a park or gym than others. See Table I-25.

Table I-24: Proximity Students Live to a Park or Gym



[Base: All Respondents: Total (N=2185); Urban (N=823); Suburban (N=691); Rural (N=671)]

Table I-25: Percentage of Students Who Live Within Five Blocks of Park or Gym, by Physical Activity Level



[Base: All Respondents: 0-1 Day (N = 337); 2-5 Days (N = 1115); 6-7 Days (N = 708); Current (N = 1564); Dropped Out (N = 276); Never (N = 312); 0 Teams (N = 588); 1-2 Teams (N = 1028); 3+ Teams (N = 536)]

Conclusion

While more girls are participating in sports than ever before in American history, a gender gap stretches across youth sports that favors males over females, sons over daughters. The width of the gender gap is not uniform, however, and it varies across grade levels, communities, income levels and racial and ethnic groups.

A recent historical overview of shifts in high school athletic participation since the passage of Title IX found that its benefits “were disproportionately reaped by those at the top of the income distribution.”⁴ The evidence here basically supports this contention, but it also extends its application. The gender gap emerges long before children reach high school. Boys’ greater access to sports appears to be sewn into current institutional arrangements that impact third- to fifth-graders. A variety of factors—individually distinguishable yet interdependent—are related to girls’ and boys’ athletic participation: i.e., where children live and go to school (urban, suburban and rural areas), their family’s income, race and ethnicity, age differences and grade level.

Our findings suggest that if children are female, live in an urban area and are growing up in a lower-income single-parent family, they are less likely to be involved with sports during childhood and adolescence. Children’s life chances in sport, or the probabilities that they will ever play and benefit from sports, flow from the intersections between personal preferences and social opportunities. Suburban girls have more sport options than their urban and rural counterparts. The chances that a poor girl will never play a sport are greater than an upper-middle-class girl. Fewer urban girls participate in sports than their male counterparts. And these and other patterns of gender inequity and differential opportunity differ between children’s elementary school years, the middle school years and high school phase of adolescence.

Part II: Participation in Sports and Exercise Activities

If asked to name the most popular youth sports in 1975, the typical parent would probably have cited basketball, football, baseball, track and field, swimming and diving, and perhaps, bowling, skiing, wrestling and gymnastics. Many of these same parents would also have equated “sports” to boys’ and men’s sports because so few girls were involved. In contrast, today, most parents conjure up girls as well as boys when they think “sports,” and they refer to a wide array of activities under the umbrella of “sport and exercise” that include the old standards but also athletic activities such as volleyball, soccer, cycling, lacrosse, field hockey, figure skating, inline skating, skateboarding, dance, ultimate Frisbee, cheerleading, double Dutch and stepping.

What kinds of sports and exercise activities do girls and boys currently pursue? How often do girls and boys exercise each week? What are the most popular sports and exercise activities for girls and boys? What kinds of factors appear to influence young people’s involvement with sports and exercise? These questions are answered in this section.

Diversity in the Types of Sports and Exercise

In order to gather information about the full array of physical activities that are popular among American youth, we asked third- through 12th-grade students, “During the past 12 months, which of the following sports or exercises have you done?” The students checked any of the 32 types of sports and exercise activities listed, and they could also write in an activity that was not listed.

Table II-1 depicts the top 11 physical activities cited by girls and boys. While basketball, swimming and jogging/running/cross-country were popular with both girls and boys, dancing and football are gender-specific. Inline skating ranked ninth (33%) in popularity for girls, while skateboarding ranked 10th (29%) for boys.

Table II-1: Most Frequent Physical Activities, by Gender

Girls	
Dancing	61%
Swimming/Diving	56%
Basketball	55%
Jogging/Running/Cross-Country	53%
Volleyball	47%
Bowling	47%
Soccer	40%
Baseball/Softball	38%
Inline skating	33%
Camping/Hiking	29%
Frisbee	29%
Boys	
Basketball	71%
Football	65%
Soccer	51%
Jogging/Running/Cross-Country	49%
Swimming/Diving	48%
Baseball/Softball	48%
Bowling	48%
Weight Training	42%
Cycling/Mountain Biking	33%
Skateboarding	29%
Frisbee	29%

[Multiple Response] [Base: All Respondents – Total (N = 2185); Girls (N = 1125); Boys (N = 1045)]

Table II-2 points to some other preferences. While dance appealed to girls of all ages, volleyball was especially popular among middle-school girls. Basketball engaged boys across all grade levels, and skateboarding was popular among third- to fifth-graders.

Girls and boys explored similar numbers of physical activities across grade levels. Table II-3 compares the average number of physical activities done during the past year.

Table II-2: Top Physical Activities Done, by Gender and Grade Level

Girls	Boys
Dancing 3rd-5th Grade: 61% 6th-8th Grade: 61% 9th-12th Grade: 60%	Basketball 3rd-5th Grade: 68% 6th-8th Grade: 80% 9th-12th Grade: 66%
Volleyball 3rd-5th Grade: 47% 6th-8th Grade: 59% 9th-12th Grade: 39%	Skate Boarding 3rd-5th Grade: 42% 6th-8th Grade: 33% 9th-12th Grade: 15%
Soccer 3rd-5th Grade: 44% 6th-8th Grade: 46% 9th-12th Grade: 34%	Weight Training 3rd-5th Grade: 27% 6th-8th Grade: 42% 9th-12th Grade: 54%

[Multiple Response] [Base: All Respondents – Total (N = 2185); Girls – Total (N = 1125)]

Table II-3: Average Number of Different Types of Physical Activities Done At Least Once During the Past 12 Months, by Gender and Grade Level

Grade Level	Girl	Boy
3rd-5th Grade	8.5	8.7
6th-8th Grade	9.6	9.3
9th-12th Grade	7.4	7.3

Participation in Traditional, Emerging and Recreational Physical Activities

Statistical analyses⁵ were used to uncover three distinct clusters of sports and exercise activities that young people engaged in “during the past 12 months.” These three clusters were labeled “Traditional,” “Emerging” and “Recreational” Activities. See the lists below.

Traditional Activities	Emerging Activities	Recreational Activities
Basketball	Cheerleading	Camping
Football	Dance	Boating
Baseball/softball	Gymnastics	Horseback Riding
Track & field	Double Dutch	Cycling
Jogging	Volleyball	Swimming
Soccer		Bowling
Weightlifting		

The traditional activities correspond with the cultural mainstays in American sports. Soccer is somewhat of a newcomer, but it has been around for at least a generation in the United States and much longer abroad. These traditional activities, until the past few decades, were also highly male-dominated (with the exception of softball). The emerging activities encompass what many people consider “women’s” or “feminine” activities, although some males are

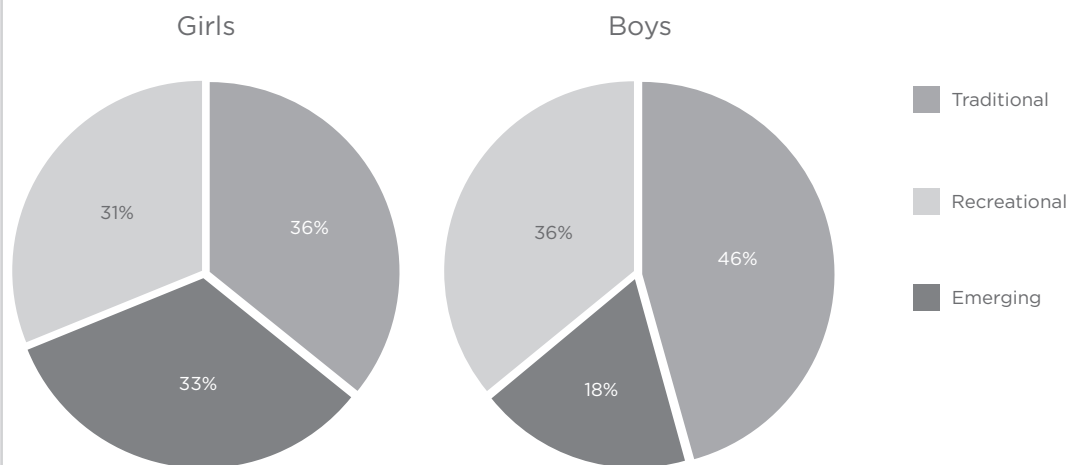
also involved. Here the descriptor “emerging” is used because these activities are often not considered sports (cheerleading, dance and double Dutch), even though they are often highly competitive and involve training and athleticism. Finally, the recreational activities typically engage both females and males and, while some can be competitive, they are typically done for fun.

The two pie diagrams in Table II-4 show the percentages of all the physical activities that children cited for each of the three clusters. The extent of girls’ involvement across all three activity clusters was fairly constant, with about one-third falling into

each category. In contrast, boys reported higher percentages of involvement with traditional activities than girls do (46% compared to 36%).

Table II-5 (on following page) depicts the average number of physical activities that girls and boys participated in during the past year for each cluster. Boys’ greater immersion in traditional activities began at earlier ages and intensified after they entered high school. They exhibited a top-heavy involvement with traditional activities and minimal engagement with emerging activities across all grade levels. In contrast, girls had a more balanced distribution of participation across traditional, emerging and recreational activities

Table II-4: Type of Physical Activities Students Have Engaged in at Least Once During the Past 12 Months

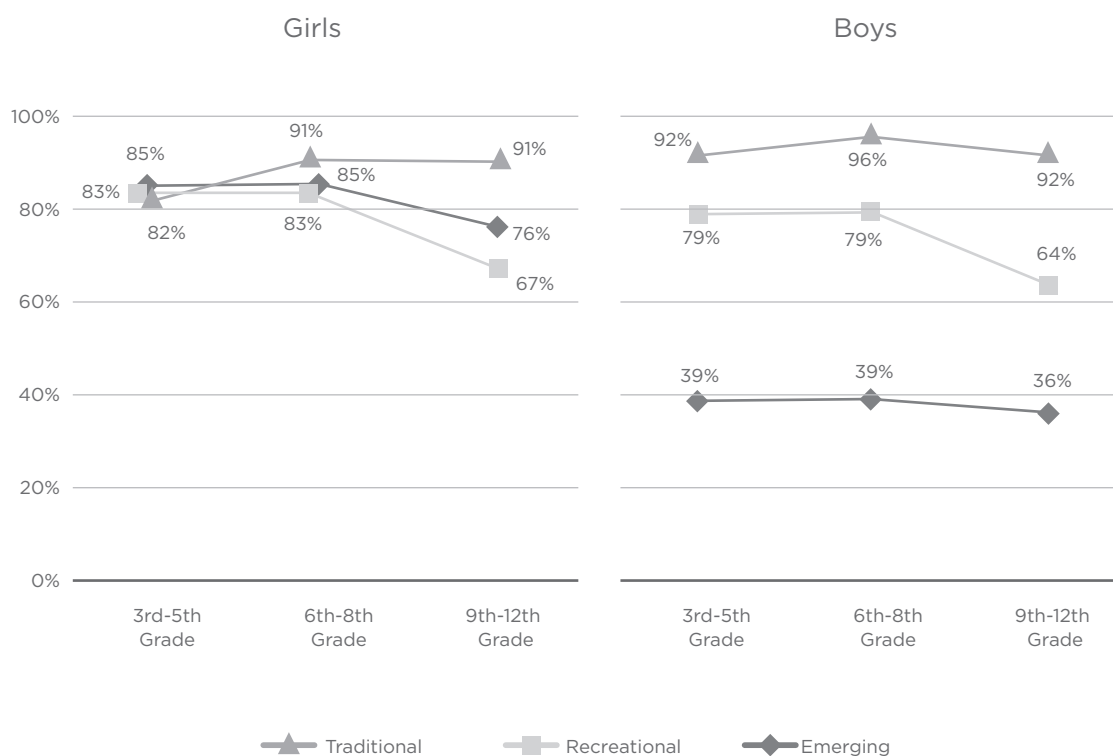


Girls (sum students who indicated participating in these types of activities):
Traditional (n = 937), Emerging (n = 865), Recreational (n = 815).

Boys (sum of students who indicated participating in these types of activities):
Traditional (n = 1020), Emerging (n = 413), Recreational (n = 802).

T-test examining differences between participating in emerging sports and gender: $t = 23.11$, $df = 2154$, $p < .001$.

Table II-5: Type of Physical Activities Students Have Engaged in at Least Once During the Past 12 Months



Girls – 3rd-5th Grade (n = 330), 6th-8th Grade (n = 315), 9th-12th Grade (n = 422).

Boys – 3rd-5th Grade (n = 344), 6th-8th Grade (n = 343), 9th-12th Grade (n = 415).

from third through 12th grades. Finally, within each grade level, girls and boys reported comparable numbers for recreational activities.

Why might girls explore a wider range of sports and exercise than boys? It may be that boys generally avoid emerging activities that are seen as “feminine” while girls feel free to experience a larger variety of sports and exercise, regardless of gender stereotypes. It could also be that because girls are often given

fewer opportunities to participate in traditional sports in their communities or schools, they (and/or their parents) channel their interest into emerging and recreational activities. Finally, some girls (and boys) might pursue emerging forms of sports and exercise because they allow participants to combine “feminine” traits with a more competitive, active athletic identity.

On average, during the past year the girls participated in two traditional, two recreational and two emerging sports and exercise activities. See Table I-6. Boys averaged three to four traditional, two recreational and less than one emerging activity.

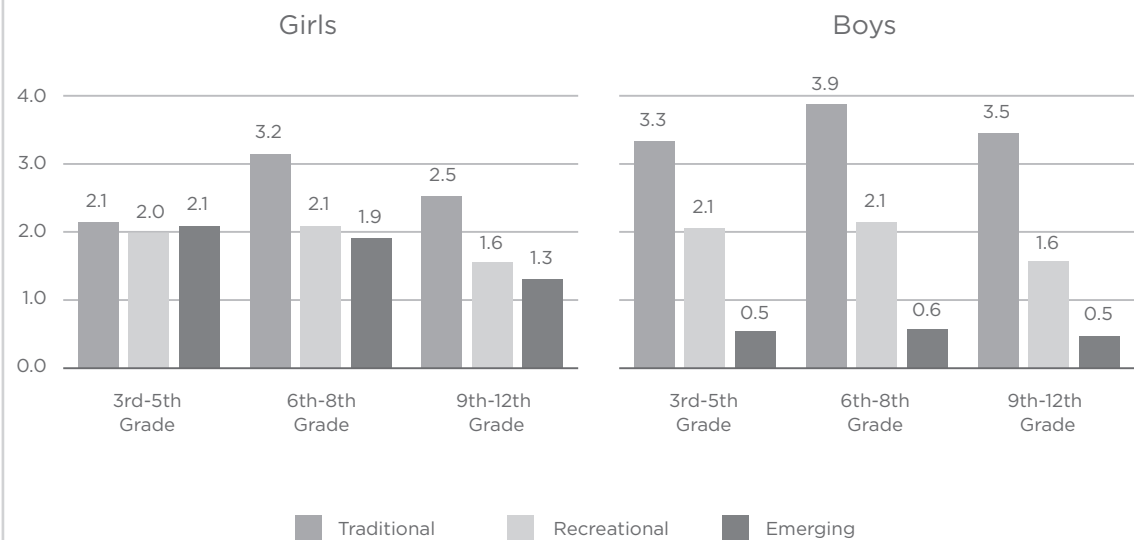
Daily and Weekly Physical Activity: Evidence for a Gender Gap

The findings below focus on children's daily and weekly physical activity. Students were asked, "During the past seven days, on how many days were you physically active for a total of at least 60 minutes

per day?"⁶ On days that 60 minutes was achieved, this was considered a measure of the frequency of physical activity.

Many children were physically active three to five days per week (40% of boys and 45% of girls). About four in 10 boys (39%) were active six to seven days per week, compared with 26% of girls. See Table II-7 on following page. Girls were also slightly more likely than boys to be physically inactive; i.e., 27% of girls and 21% of boys exercised on two days or less.

Table II-6: Average Number of the Different Types of Physical Activities Engaged in During the Past Year, by Gender and Grade Level



T-tests comparing gender differences in the average number of the types of physical activities engaged in during the past year by grade.

3rd-5th Grade – Traditional: $t = 8.217^{***}$, $df = 667$, $p < .001$; Emerging: $t = -17.989^{***}$, $df = 667$, $p < .001$; Recreational: $t = .622$, $df = 667$, $p = .534$.
 6th-8th Grade – Traditional: $t = 4.905^{***}$, $df = 650$, $p < .001$; Emerging: $t = -15.61^{***}$, $df = 650$, $p < .001$; Recreational: $t = .384$, $df = 650$, $p = .701$.
 9th-12th Grade – Traditional: $t = 7.332^{***}$, $df = 833$, $p < .001$; Emerging: $t = -12.603^{***}$, $df = 833$, $p < .001$; Recreational: $t = .153$, $df = 833$, $p = .878$.

**Table II-7: Physical Activity for at Least 60 Minutes
During the Past Seven Days, by Gender**

	0 Days	1 Day	2 Days	3 Days	4 Days	Very Active Students:		
						5 Days	6 Days	7 Days
Girls:	7%	8%	12%	15%	15%	15%	8%	18%
						41%		
Boys:	6%	8%	7%	11%	12%	17%	9%	30%
						56%		

[Base: All Respondents – Total (N = 2185); Girls (N = 1125); Boys (N = 1045)]

The gender gap in physical activity became more marked when activity levels were traced across grade levels. See Figure II-8 on following page. As girls get older they were less likely to engage in high rates of physical activity (five days or more), while more boys remained highly involved with physical activity from childhood through the high school years. Physical activity rates increased steadily among rural boys between elementary school and high school. Not only were girls' rates lower than those of their male counterparts in elementary and middle school grades, but they plummeted during the high school years, while boys' rates declined slightly or increased.

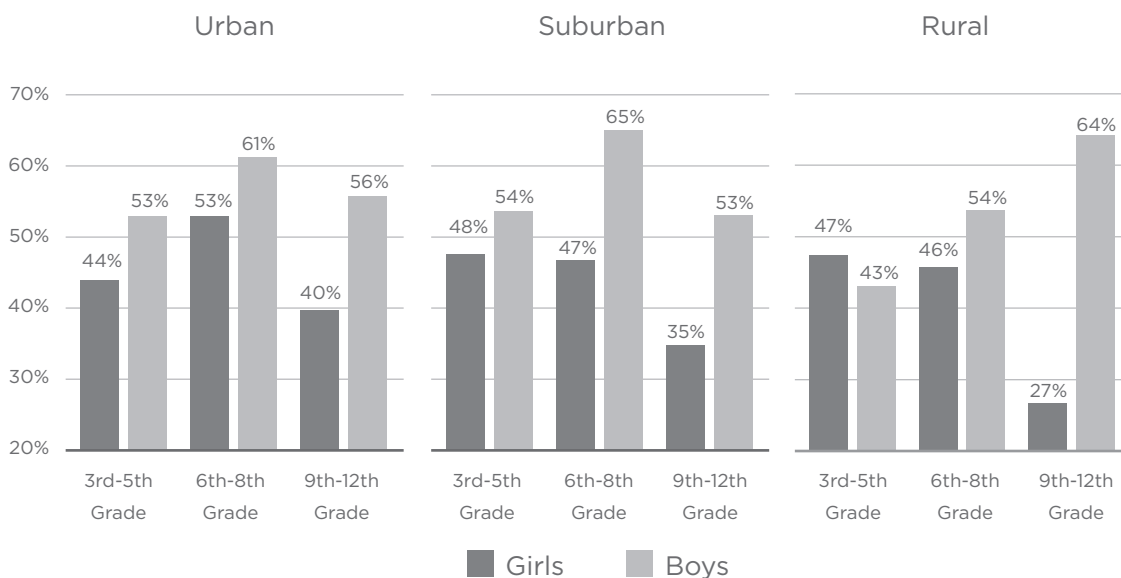
Table II-9 (o page 42) shows how the same pattern of discrepancies in vigorous physical activity by gender and school location varied across grade levels. The gender gap widened as children entered the high school years, and physical activity declined for both sexes—except for rural boys who became increasingly more physically active across childhood and through adolescence.

Athletic Participation and Overall Physical Activity

Because regular physical activity contributes to wellness, health advocates are concerned about the gradual decline of vigorous physical activity as children move through adolescence into young adulthood.⁷ One question raised in this study is whether children's involvement with sports slows down the slide toward inactivity among adolescents. On one hand, it makes common sense that children who play sports are generally more physically active. But sports participation and other realms of physical activity can also be somewhat independent of one another. A softball or football player may be particularly active during the season but a couch potato the rest of the year. More likely, the greater the amount of athletic participation in young people's lives makes for an overall physically active lifestyle across all stages of children's development.

Highly involved female athletes had significantly higher rates of weekly physical activity than their

Table II-8: Percentages of Students Who Exercise at Least Five Days Per Week



Chi-Square test comparing gender and exercise frequency by grade and type of community.

Urban – 3rd-5th Grade: Chi-Square (1, 272) = 2.163, $p = .089$; 6th-8th Grade: Chi-Square (1, 189) = 1.316, $p = .251$;

9th-12th Grade: Chi-Square (1, 160) = 4.144*, $p < .05$.

Suburban – 3rd-5th Grade: Chi-Square (1, 185) = .676, $p = .411$; 6th-8th Grade: Chi-Square (1, 332) = 11.358***, $p = .001$;

9th-12th Grade: Chi-Square (1, 522) = 17.653***, $p < .001$.

Rural – 3rd-5th Grade: Chi-Square (1, 205) = .373, $p = .501$; 6th-8th Grade: Chi-Square (1, 128) = .756, $p = .385$;

9th-12th Grade: Chi-Square (1, 153) = 21.59***, $p < .001$.

non-athletic peers. See Tables II-10a, II-10b and II-10c (on pages 43-45). At the same time, physical activity levels remained high across grade levels for urban and suburban girls, although they declined among rural girls. In contrast, for female non-athletes, a decline of physical activity occurs across the elementary and middle school years for urban girls. Physical activity decreased for all female non-athletes during the high school years, especially among rural girls.

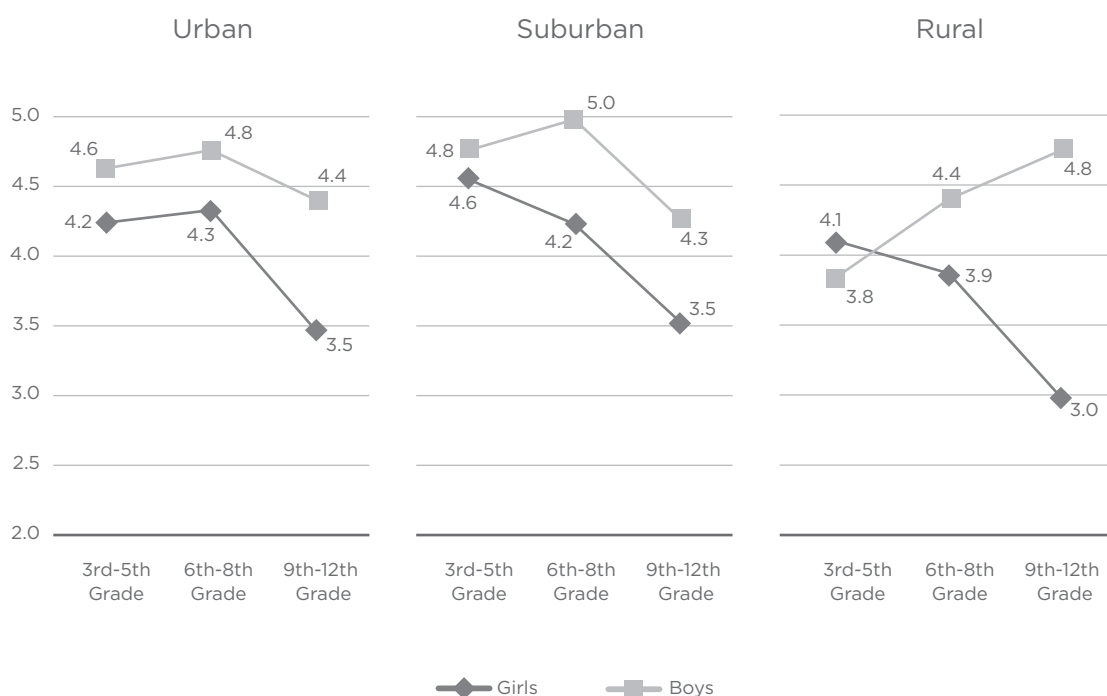
In contrast, Tables II-10a, II-10b and II-10c also show that the average number of days that male non-athletes were physically active increased between the

elementary and middle school years while declining during high school. Among male highly involved athletes the levels of physical activity held steady across all grade levels (including high school), while actually increasing among rural boys. Unlike the case for rural girls, there was no dip in physical activity among the highly involved rural male athletes.

Race and Ethnicity

Figure II-11 (on page 46) shows the average number of days that children from various racial and ethnic groups were physically active for at least 60 minutes per day. The steepest decline in physical activity was

Table II-9: Average Number of Days Students Were Physically Active for a Total of at Least 60 Minutes Per Day, by Gender, Grade and Type of Community



T-tests comparing gender and number of days students exercised, by grade and type of community.

Urban – 3rd–5th Grade: $t = 1.430$, $p = .154$, $df = 269$; 6th–8th Grade: $t = 1.396$, $p = .164$, $df = 186$;

9th–12th Grade: $t = 2.715$, $p = .007^{**}$, $df = 158$.

Suburban – 3rd–5th Grade: $t = .677$, $p = .488$, $df = 183$; 6th–8th Grade: $t = 3.35$, $p = .001^{***}$, $df = 330$;

9th–12th Grade: $t = 5.207$, $p < .001^{***}$, $df = 520$.

Rural – 3rd–5th Grade: $t = -.799$, $p = .425$, $df = 203$; 6th–8th Grade: $t = 1.242$, $p = .216$, $df = 126$;

9th–12th Grade: $t = 5.207$, $p < .001^{***}$, $df = 151$.

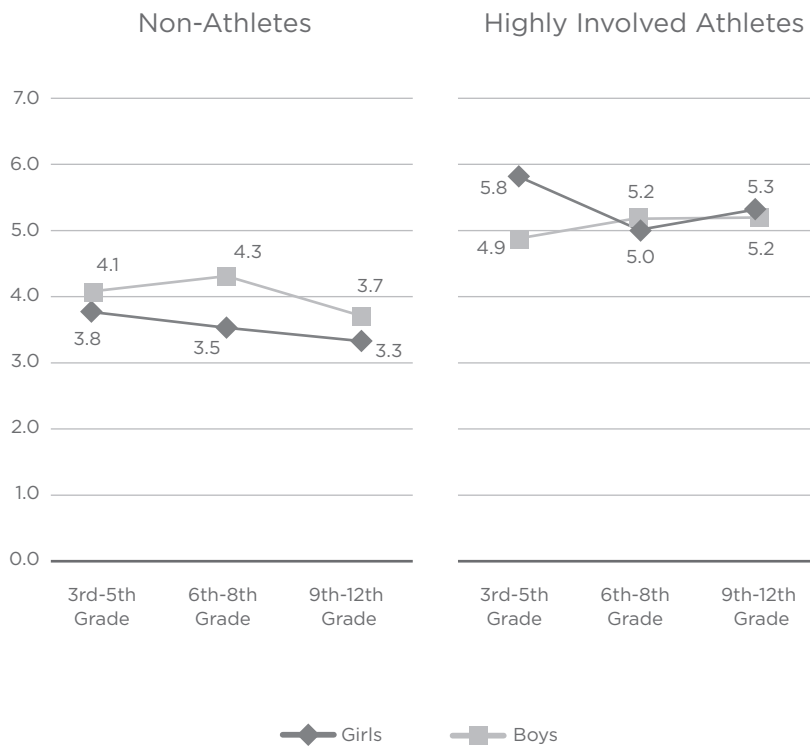
among Asian girls as they moved into the high school years. The gender gap was most pronounced during the high school years.

Conclusion

American girls and boys participate in various sports and exercise activities during the year. While girls explore a wider array of physical activities, boys' participation is more narrowly focused on traditional forms of sports and exercise. The findings revealed a

gender gap in weekly physical activity between girls and boys, and the gap widens as children enter high school. Finally, the variation of physical activity by gender, race and ethnicity and type of community suggests that it is closely linked with levels of access and opportunity.

Table II-10a: Average Number of Days Urban Non-Athletes and Highly Involved Urban Athletes Were Physically Active for a Total of at Least 60 Minutes Per Day, by Gender and Grade



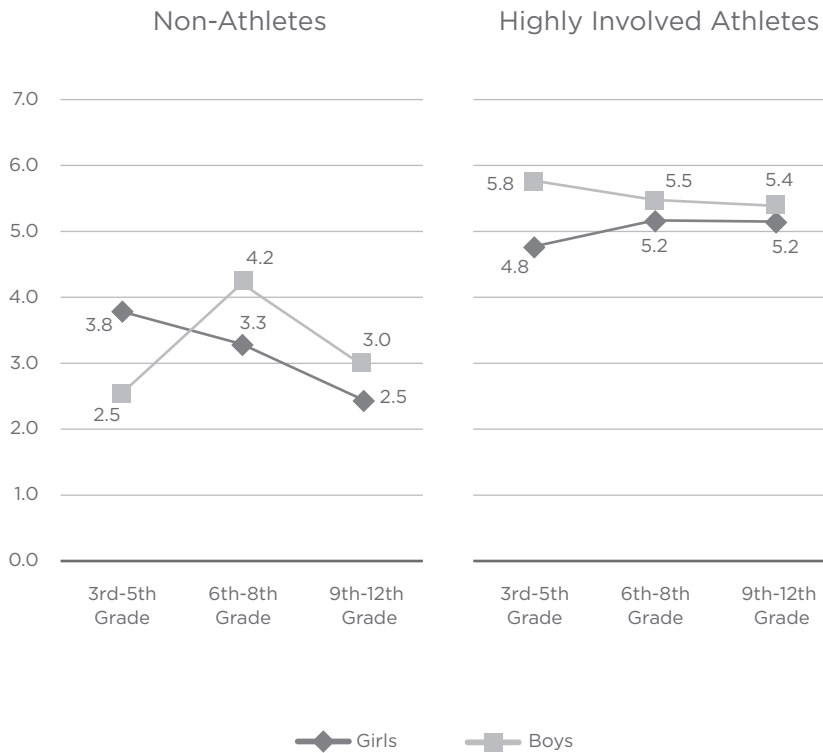
T-tests comparing athletic involvement and number of days students exercise, by grade, gender and type of community.

3rd-5th Grade - Girls: $t = -3.171^{**}$, $p < .01$, $df = 67$; Boys: $t = -1.524$, $p = .132$, $df = 71$.

6th-8th Grade - Girls: $t = -2.184^{*}$, $p < .05$, $df = 36$; Boys: $t = -1.650$, $p = .104$, $df = 62$.

9th-12th Grade - Girls: $t = -2.583^{*}$, $p < .05$, $df = 41$; Boys: $t = -2.091^{*}$, $p < .05$, $df = 42$.

Table II-10b: Average Number of Days Suburban Non-Athletes and Suburban Highly Involved Athletes Were Physically Active for a Total of at Least 60 Minutes Per Day, by Gender and Grade



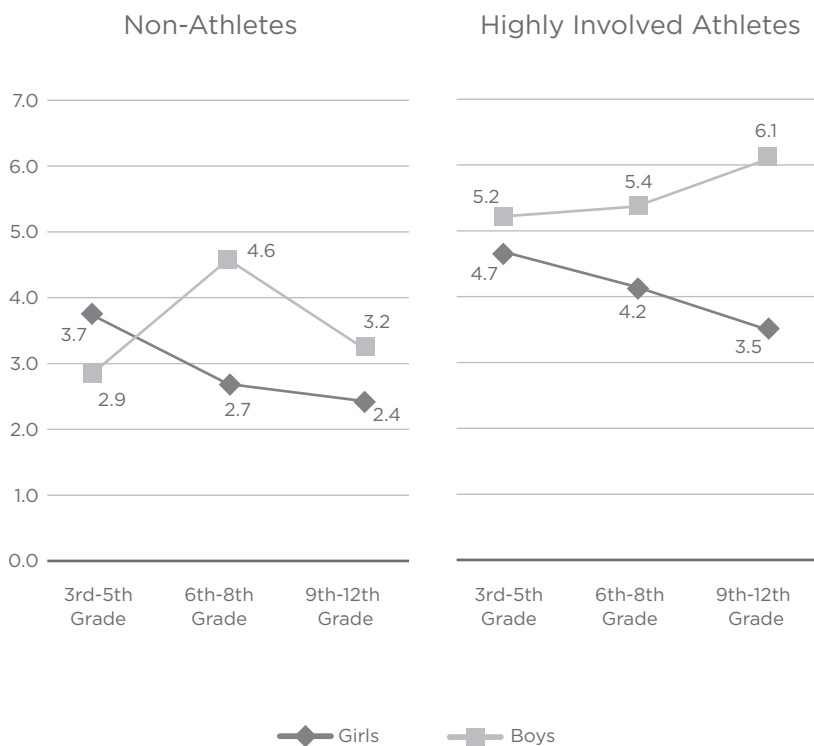
T-tests comparing athletic involvement and number of days students exercise, by grade, gender and type of community.

3rd-5th Grade – Girls: $t = -1.830$ $p = .073$ $df = 55$; Boys: $t = -4.308^{***}$, $p < .001$, $df = 48$.

6th-8th Grade – Girls: $t = -4.101^{***}$, $p < .001$, $df = 91$; Boys: $t = -3.355^{***}$, $p = .001$, $df = 85$.

9th-12th Grade – Girls: $t = -6.931^{***}$, $p < .001$, $df = 116$; Boys: $t = -7.016^{*}$, $p < .001$, $df = 131$.

Table II-10c: Average Number of Days Rural Non-Athletes and Highly Involved Rural Athletes Were Physically Active for a Total of at Least 60 Minutes Per Day, by Gender and Grade



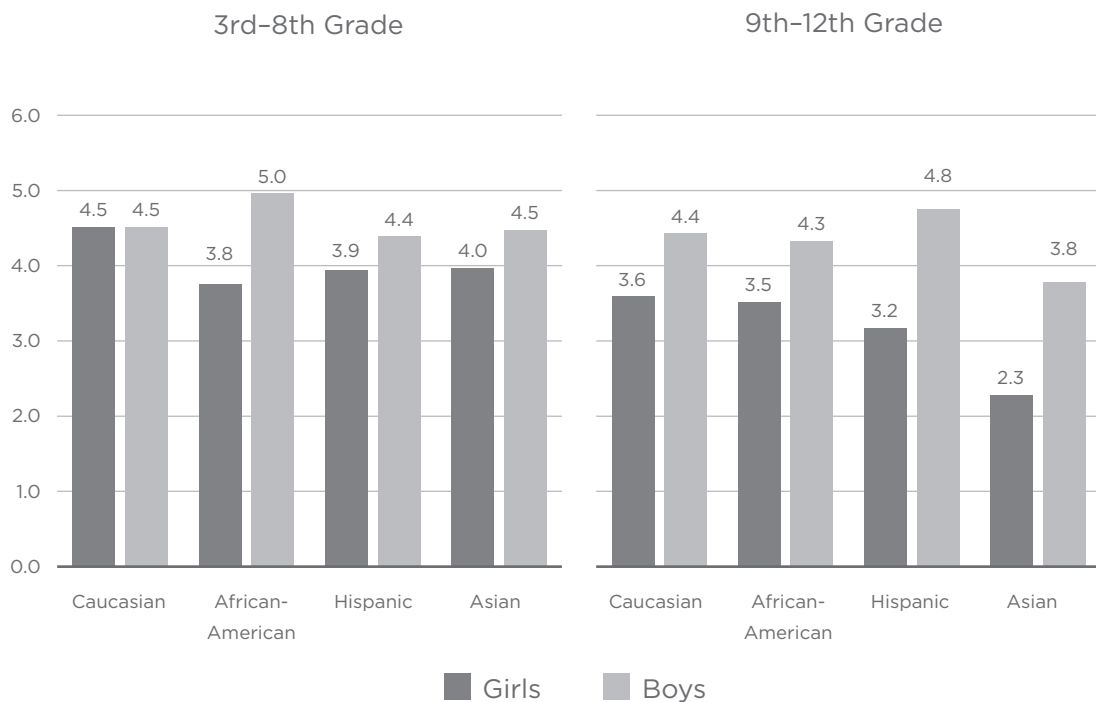
T-tests comparing athletic involvement and number of days students exercise, by grade, gender and type of community.

3rd-5th Grade - Girls: $t = -1.269$, $p = .212$, $df = 40$; Boys: $t = -4.162^{***}$, $p < .001$, $df = 65$.

6th-8th Grade - Girls: $t = -1.609$, $p = .122$, $df = 21$; Boys: $t = -1.210$, $p = .233$, $df = 44$.

9th-12th Grade - Girls: $t = -1.597$, $p = .199$, $df = 35$; Boys: $t = -4.388^{***}$, $p < .001$, $df = 39$.

Table II-11: Average Number of Days Children Were Physically Active
for a Total of at Least 60 Minutes Per Day, by Gender, Grade and Race



T-tests comparing gender and number of days students exercise, by grade and race.

Caucasian - 3rd-8th Grade: $t = -.014$, $p = .988$, $df = 687$; 9th-12th Grade: $t = 4.266^{***}$, $p < .001$, $df = 449$.

African-American - 3rd-8th Grade: $t = 3.60^{***}$, $p < .001$, $df = 187$; 9th-12th Grade: $t = 1.891$, $p = .061$, $df = 125$.

Hispanic - 3rd-8th Grade: $t = 1.463$, $p = .145$, $df = 207$; 9th-12th Grade: $t = 4.468^{***}$, $p < .001$, $df = 155$.

Asian - 3rd-8th Grade: $t = 1.448$, $p = .150$, $df = 144$; 9th-12th Grade: $t = 2.532^*$, $p < .05$, $df = 79$.

Part III: Sports, Exercise and Family Life

Children’s involvement with sport impacts family life and, reciprocally, family life influences girls’ and boys’ athletic experiences. Little research has been done examining the links between young people’s athletic participation and family life. To what extent do youth sports help increase interaction among parents and children? Does children’s involvement with sports bring families together or pull them apart? Is athletic participation a catalyst for family communication and cohesion? Do parents encourage the athletic exploits of daughters as much as that of sons?

Many parents actively support their children’s interest and participation in sports. Most believe sports teach children about competition and cooperation, the value of hard work, teamwork, setting goals and good nutrition. Even parents who may think there is too much competition in sport or who worry about their children’s risk for injury do their best to help their children develop a balanced set of values and stay healthy in relation to winning and losing. And finally, some parents are over-involved with their children’s athletic exploits, which can inject stress into their children’s lives.

This study examines the links between children’s athletic participation and family satisfaction, whether “sport/family” synergies vary by gender and across children’s grade levels, and how family type and economic disparities enter the picture of sport and family relations.

Children’s Athletic Participation and Family Satisfaction

Is children’s athletic participation related to family satisfaction? “Family satisfaction” generally refers to the extent that family members rely on each other, feel close to one another, and feel happy and fulfilled with one another. For this study, responses to 10 statements about family dynamics were measured. They form a “family satisfaction score,” measuring family communication, flexibility and cohesion. Families with high scores relate to each other

better and feel happy and fulfilled with each other.⁸ Table III-1 shows the average score for each of the statements in the scale.

General findings revealed that older parents were less satisfied than younger ones. See Table III-2 on following page. Less satisfied families also tended to

Table III-1: Family Satisfaction Score

Mean Satisfaction on 1-5 Scale, where 5 is “Extremely Satisfied”

Communication	Your family’s ability to share positive experiences.	3.9
	The quality of communication between family members.	3.6
	The way problems are discussed.	3.5
	The fairness of criticism in your family.	3.3
Flexibility	Your family’s ability to be flexible.	3.7
	Your family’s ability to resolve conflicts.	3.6
	Your family’s ability to cope with stress.	3.5
Cohesion	Family members concern for each other.	4.0
	The degree of closeness between family members.	4.0
	The amount of time you spend together as a family.	3.6

Family Satisfaction Score (FSS) was computed by summing ratings from all 10 statements. Respondents were grouped based on aggregate scores: “low FSS”: under 34; “medium FSS”: 35-39.9; and “high FSS”: 40 and above.

Table III-2: Summary Characteristics of Different Levels of Family Satisfaction

	Average Age (Years)	Married	Live in Urban Location	HHI > \$50K	Child exercises 3+/wk	Family Satisfaction Score
<div>34%</div> <div>High</div>	41.9	36%	32%	38%	36%	■ Low (<34)
<div>37%</div> <div>Medium</div>	41.3	39%	31%	37%	39%	■ Medium (34-39.9)
<div>28%</div> <div>Low</div>	43.6	25%	37%	25%	25%	■ High (>=40)

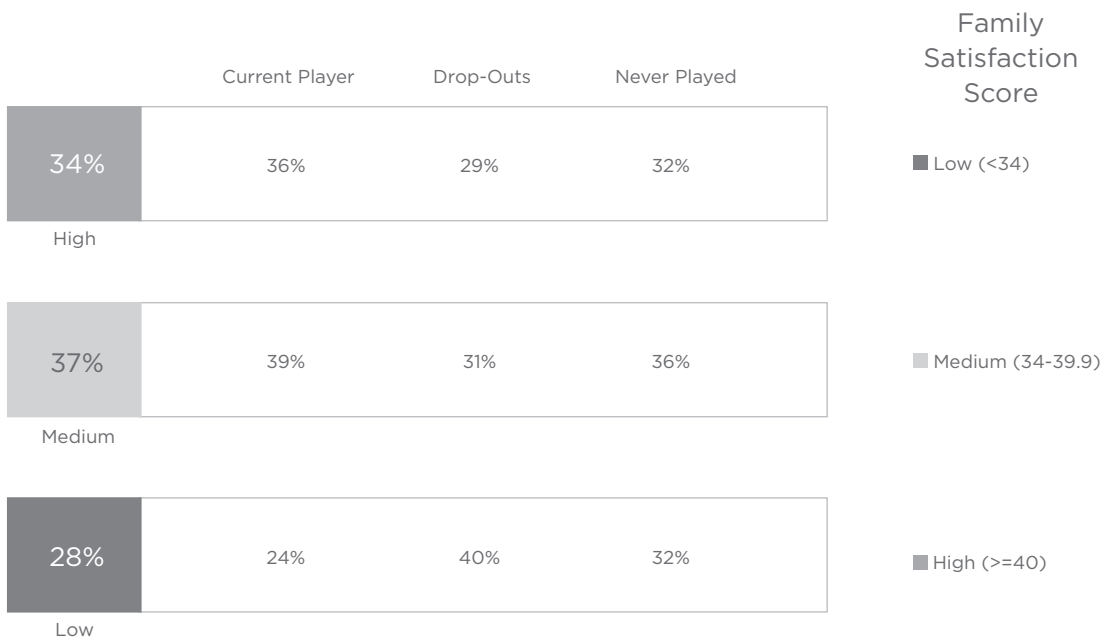
[Base: All Respondents (N = 863)]

have lower incomes and live in urban areas. Parents in more highly satisfied families reported higher levels of exercise among their children. Family satisfaction scores were also lower among families with children who had dropped out of an organized or team sport. See Table III-3 on following page.

In order to look more closely at the association between children's athletic participation and family satisfaction, dual-parent families were distinguished from single-parent families. Single-parent families generally have fewer economic and social resources to devote to childrearing. The number of single-parent families in the United States has increased in recent decades. This trend is partly explained by rising rates of divorce and separation, as well as

out-of-wedlock births. Today one-third of children are born out of wedlock, compared with 1 out of 20 in 1950.⁹ Most single parents are women, and while single-parent families are found across all U.S. income brackets, they are much more likely to be poor. Indeed, single mothers and their dependent children comprise a large segment of all persons living in poverty in the country. Even after accounting for all government assistance and tax rebates, the poverty rate for single-parent families is 41.4%. The concomitant poverty rate for dual-parent families is 19.1%.¹⁰ If the single parent is a woman, the poverty rate increases to 55%.¹¹ Partly because of lower income, sports participation among children in single-parent families is often lower than adolescents living in dual-parent families.¹²

Table III-3: Family Satisfaction and Children's Athletic Status



[Base: All Respondents (N = 863)]

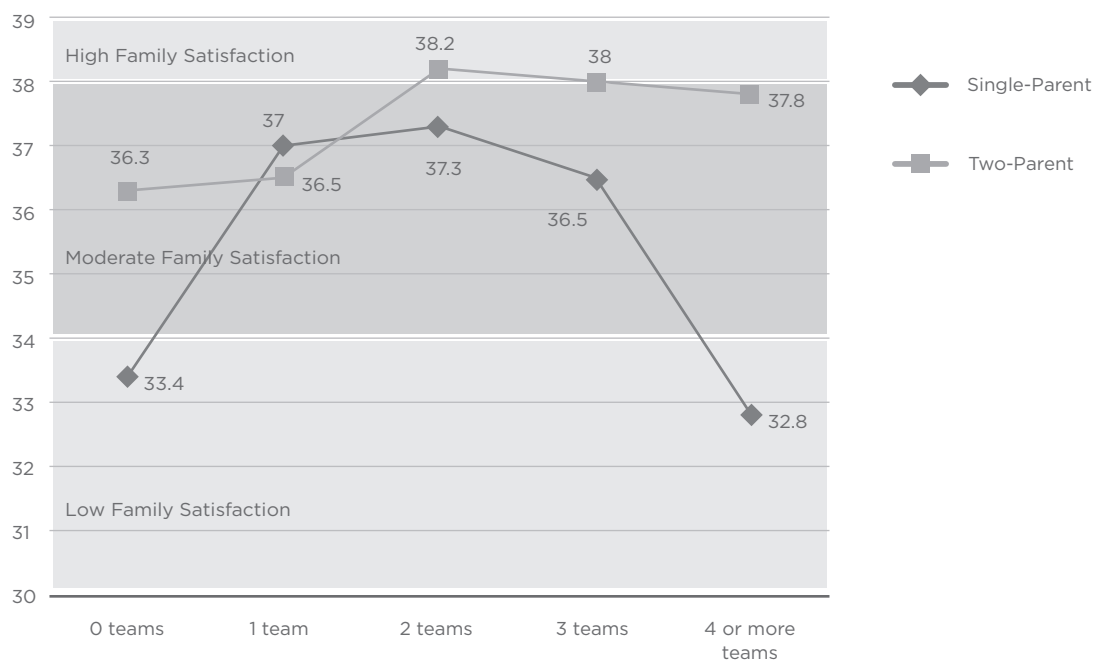
The link between children's athletic participation and family satisfaction was expected to be stronger in dual-parent families than single-parent families. It is often easier for two parents to share driving a child to practices or to take time out to practice with a child. And dual-parent families are generally better able than their single-parent counterparts to afford equipment purchases, transportation costs and league or program fees.¹³ Such expenses are a hardship for many single-parent families, and working single mothers often find time and energy to be scarce resources.

The results of the parent survey revealed a complex picture. The line graph in Figure III-4 (on following page) plots the relationship between children's

athletic participation and average scores on family satisfaction. Family satisfaction was lowest in single-parent families in which children were not involved with sports. When a child participated in one, two or three sports during the year, family satisfaction scores increased in both single-parent and dual-parent families. In single-parent families, however, when children participated in four or more teams per year, family satisfaction plummeted. But in dual-parent families, the higher rates of children's athletic participation were not linked with lower family satisfaction.

These findings suggest that children's involvement with sports is often associated with more harmony, cohesion and communication between parents

Table III-4: Athletic Participation and Family Satisfaction, by Family Type



T-tests comparing family type and mean family satisfaction scores, by athletic involvement.

0 teams: $t = 2.894^{**}$, $df = 274$, $p < .01$; **1 team:** $t = -.366$, $df = 202$, $p = .715$; **2 teams:** $t = .723$, $df = 210$, $p = .471$; **3 teams:** $t = .865$, $df = 113$, $p = .389$; **4 or more teams:** $t = 2.179^{*}$, $df = 44$, $p < .05$.

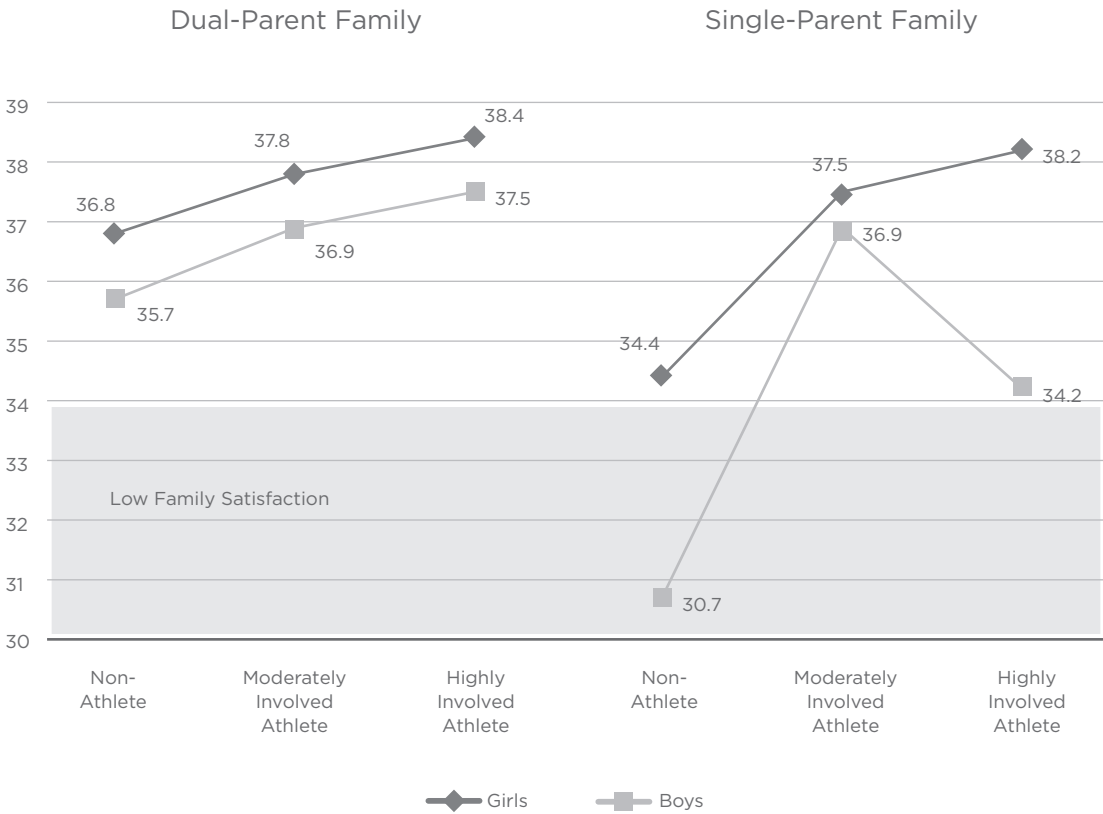
and children. It might be that sports bring parents and children together, providing a focal point for conversation and opportunities to spend time together. Perhaps when children are emotionally and physically engaged by a team activity, things also go better at home. Sports participation can provide young people with a sense of belonging and affiliation at school that also elevates self-esteem and self-confidence,¹⁴ which, in turn, might smooth parent-child relationships. Both female and male high school

athletes tended to rate themselves as popular and to be more involved with extracurricular activities in the school and community than non-athletes.¹⁵ Sports can provide a social nexus that fosters favorable social and emotional adjustment in school, which spills over into family relations.¹⁶ Some of the relationship between sports participation and family satisfaction may also flow the other way; that is, more satisfied and cohesive families might help children explore their interest and involvement with sports.

A more detailed focus on gender differences showed that in dual-parent families, family satisfaction increased as children's participation in sports increased—especially for daughters. See Figure III-5.

Family satisfaction scores were generally higher for both female and male athletes in dual-parent families. There is a “good news and bad news” story for single parents and their daughters. The good news is that

Table III-5: Family Satisfaction and Athletic Participation, by Gender of Child and Family Type



T-test comparing mean family satisfaction scores of dual- and single-parent families, by athletic participation and child's gender.

Female Non-Athletes: $t = 1.981^*$, $df = 154$, $p < .05$; Female Moderately Involved Athletes: $t = .197$, $df = 193$, $p = .844$;
 Female Highly Involved Athlete: $t = .082$, $df = 68$, $p = .935$.
 Male Non-Athlete: $t = 2.851^{**}$, $df = 117$, $p < .01$; Male Moderately Involved Athlete: $t = -.005$, $df = 219$, $p = .996$;
 Male Highly Involved Athlete: $t = 2.209^*$, $df = 89$, $p < .05$.

daughters' involvement with sports was related to higher levels of satisfaction in single-parent families. The bad news is that girls' participation in sports was lowest in urban areas, where there are many single-parent families.

The findings also show that in single-parent families high rates of involvement among sons were associated with a significant drop in family satisfaction. It may be that high rates of participation with sports by sons can strain parent-child relationships in single-parent families or perhaps put too much pressure on single parents to manage the social and economic demands of their son's heightened athletic interests. In contrast, dual-parent families may be socially and emotionally better equipped to handle the demands that a child's high level of sports involvement can produce.

Finally, children's involvement with sports may be particularly important to many single parents. Perhaps the African adage, "It takes a village to raise a child," comes into play here. Working single parents might appreciate the extra time that daughters or sons spend at school, knowing that their children are safe and supervised. Young athletes can also develop meaningful relationships with supportive adults (e.g., coaches, volunteers, athletic trainers, school nurses or team "moms") that extend the blanket of social support in a child's life.

There are many factors operating here. First, dual-parent families generally had higher rates of satisfaction than single-parent families. Yet single parents with children involved with sports (especially daughters) reported higher levels of family satisfaction than their counterparts with children who did not participate in sport. While more research is needed, it appears that children's involvement with sports is related to favorable outcomes in both dual-parent and single-parent families.

Parental Involvement and Encouragement

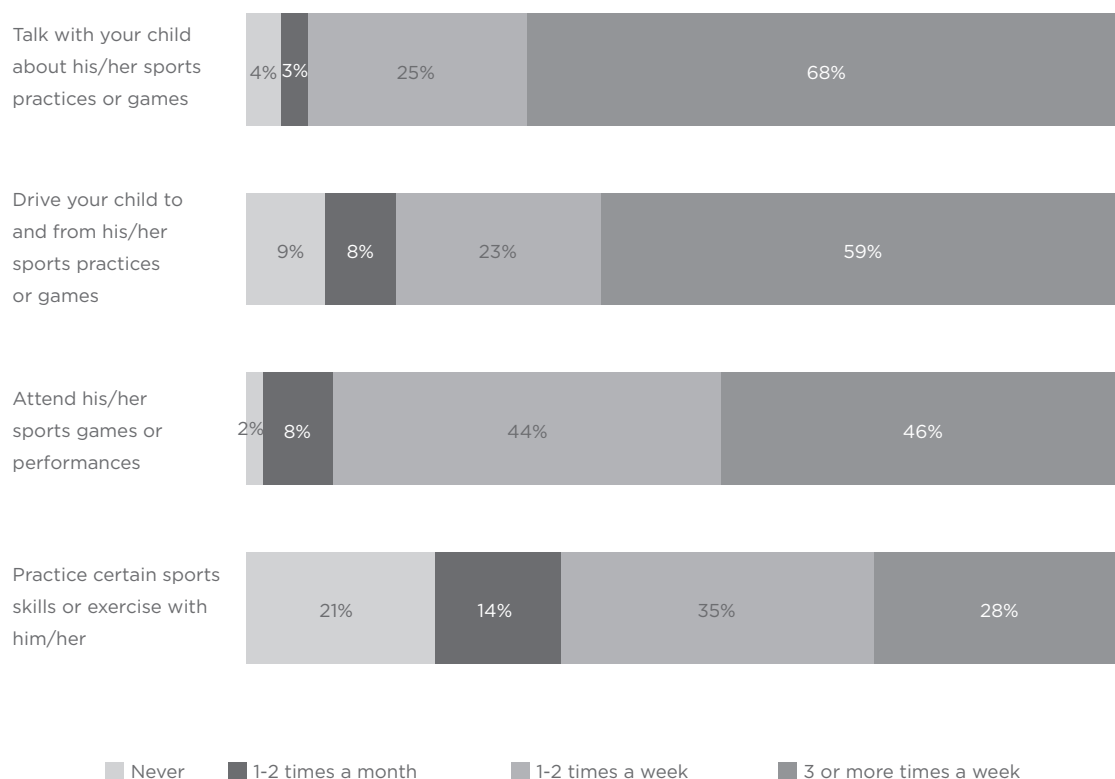
A main assumption underpinning this study is that children's involvement with sports is nurtured, guided and sustained by the interplay among peer groups, families, schools and communities. Put simply, girls and boys do not play sports in a vacuum. Encouragement and support come from family members, friends and supportive adults in school and the community. The findings in this section look at the sources of encouragement and support in children's athletic lives. The parent survey findings are discussed first, and then we examine the reports of U.S. children.

How Parents Are Involved

How do parents encourage and support their children's interest and involvement with sports? What is the overall pattern of parental involvement? Are most parents disinterested or moderately involved? How many seem to fit the stereotype of the over-involved parent? Do parents support their daughters as much as their sons?

During the telephone interviews, parents were asked, "When your child is playing an organized or team sport, how often do you or the child's other parent do the following with your child related to her (his) involvement in the sport?" About nine in 10 (93%) parents talked with their children about their sport activities one to two times or more per week. See Table III-6 on following page. The topic of sports may be a common ice-breaker or focus for parent-child communication. Next, 59% of parents spent time driving their children back and forth from games and practices three or more times per week. These "soccer mom" or "hockey dad" moments may give mothers and fathers a chance to chat with their children or to eavesdrop on backseat conversations that, in turn, may provide insights into their children's lives. Once at a practice or event, parents might also interact with coaches, dance instructors, program heads or teachers and do some "listening or lobbying" on their children's behalf.

Table III-6: Parental Involvement with Their Children's Sports Activities



[Base: Child Currently Plays Organized or Team Sports (N = 583)]

Similarly, 90% of parents attended their children's games or performances once a week or more, thus immersing themselves in the life of the school or community and showing support for their own and other children. Finally, a combined 63% of parents practiced or exercised with their children once or more per week. This kind of parent-child interaction can help girls and boys to develop physical skills or to build confidence. Children also learn that their parents care about them, which can favorably influence emotional and social development.

Parents of young children, married parents and rural parents had higher rates of involvement with their children's athletic activities. It makes sense that the single parents, for example, had less time to devote to a daughter's or son's athletic exploits than the married parents. See Table III-7 on following page. And not surprisingly, the parents of younger children invested more time in their children's sports involvement than did parents of high school youth. Older children are more independent and mobile, thus freeing up parents from some supportive activity.

Table III-7: Sum Characteristics of Parents Who Actively Support Their Child's Athletic Activity

Parent Does Activity Once Per Week or More

	Marital Status		Urbanicity			Child's Grade	
	Married	Single	Urban	Suburban	Rural	3rd-8th	9th-12th
Talk with your child about his/her sports practices or games	95%	71%	86%	94%	99%	96%	88%
Drive your child to and from his/her sports practices or games	82%	73%	82%	80%	86%	93%	61%
Attend his/her sports games or performances	92%	69%	84%	89%	95%	93%	83%
Practice certain sports skills or exercise with him/her	66%	63%	61%	63%	66%	77%	37%

[Base: Child Currently Plays Organized or Team Sports – Married (n = 453); Single (n = 27)]; Urban (n = 151); Suburban (n = 311); Rural (n = 121); 3rd-8th Grade (n = 363); 9th-12th Grade (n = 220)].

No Gender Bias in Parental Encouragement

The general results show that parents devoted similar levels of encouragement for daughters and sons. See Table III-8 on following page. Both mothers and fathers spent energy and time facilitating their children's involvement with sports.

In order to take a closer look at some of these family relationships, a “parental involvement score” was computed by summing ratings from all four statements. See Table III-9 on page 56. Scores ranged from low to high.¹⁷ Table III-10 (on page 56) breaks out some general differences between parents with high involvement and low involvement. Parents of third- to eighth-graders, for example, were much

Table III-8: Frequency of Encouragement and Support for Child's Athletic Involvement: Daughters and Sons

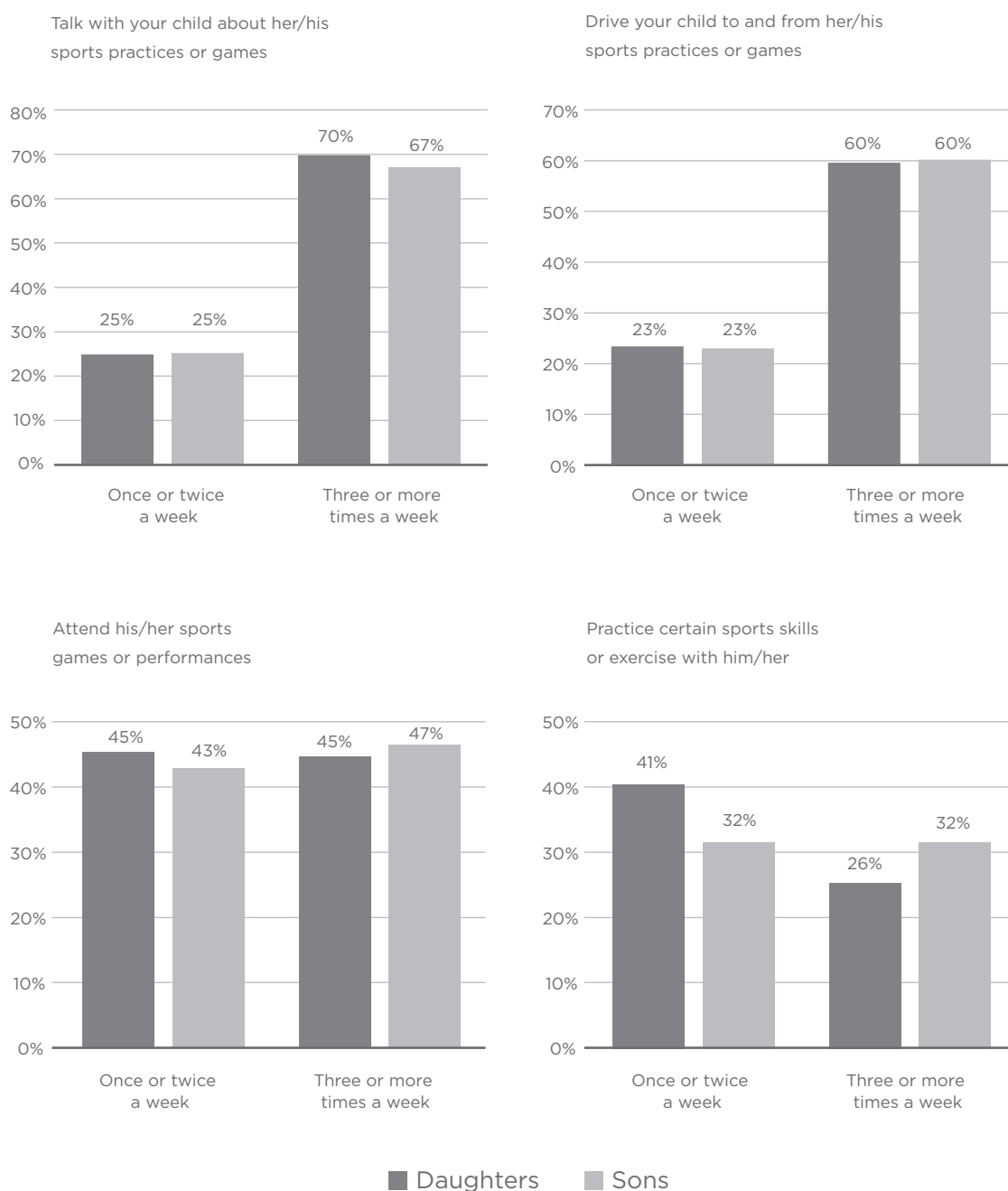
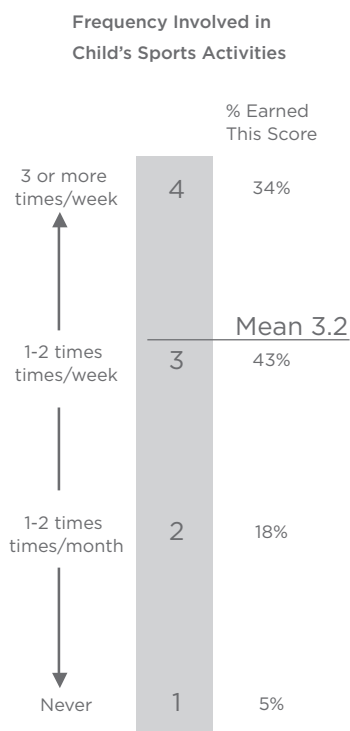


Table III-9: Measuring Parental Involvement in Their Child's Sports Activities



Measures of Parental Involvement

- Talk with your child about his/her sports practices or games
- Drive your child to and from his/her sports practices or games
- Attend his/her sports games or performances
- Practice certain sports skills or exercise with him/her

Parental Encouragement Score

Parental Involvement Score was computed by summing ratings from all four statements.

Respondents were grouped based on aggregate scores -

Three or more times/week to all activities: score = 4;

Never to all activities: score = 1

[Base: Child Currently Plays Organized or Team Sports - Total (N = 583); High Involvement (N = 192); Low Involvement (N = 132)]

Table III-10: Characteristics of Parents with High and Low Involvement in Their Child's Sports Activities

High Parental Involvement

- Child plays on 2.3 teams
- Younger child—in 3rd-8th grade (60%)
- Started team sports early: 6.2 years old
- Parent exercises 3.3 days per week
- 77% of parents were high school athletes
- Half report high family satisfaction (47%)

Low Parental Involvement

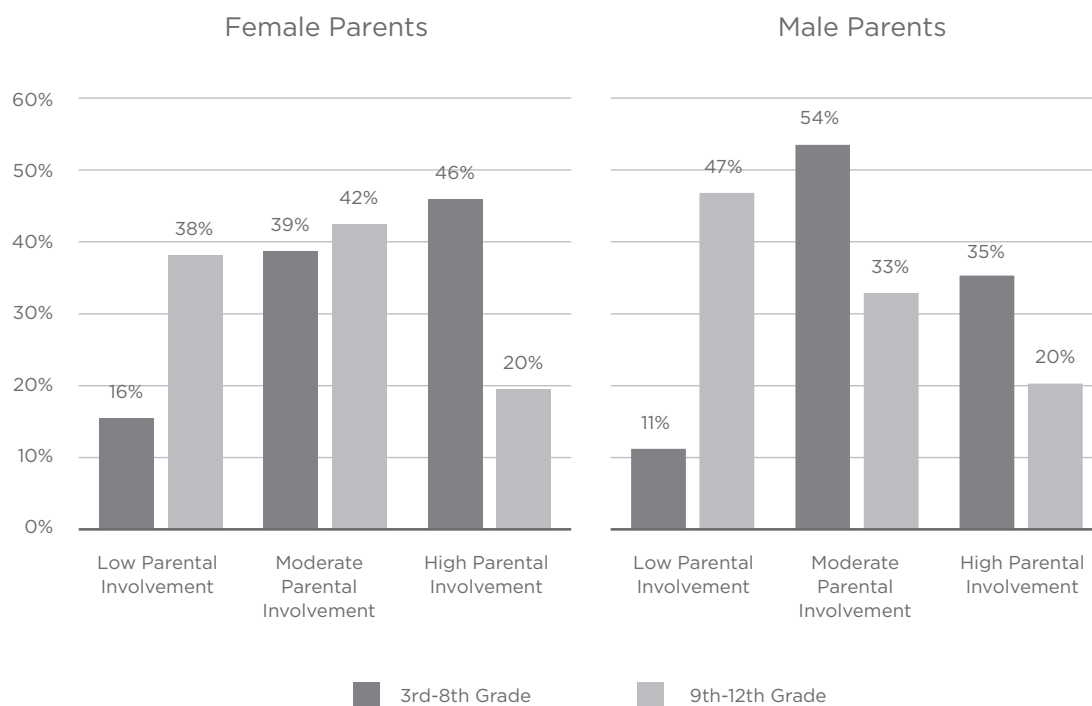
- Child plays on 1.8 teams
- Older child—in 9th-12th grade (62%)
- Started sports later: 8.3 years old
- Parent exercises 2.4 days per week
- 58% of parents were high school athletes
- One-quarter report high family satisfaction (26%)

[Base: Child Currently Plays Organized or Team Sports - Total (N = 583); High Involvement (N = 192); Low Involvement (N = 132)]

more involved than parents of high school students; 46% of mothers and 35% of fathers of younger children scored high on parental involvement, while 20% of parents of high school students scored high. See Table III-11 on following page.

These latter findings make sense in that younger children typically need more parental support and, as well, many parents want their kids to develop an interest and succeed at some kind of activity—

Table III-11: Decline in Parental Involvement with Child's Sports Activities,
by Grade Level: Mothers and Fathers



Chi-Square tests comparing parental involvement and grade, by gender of parent.

Female Parent: Chi-Square (2, 266) = 30.17***, $p < .001$; Male Parent: Chi-Square (2, 312) = 41.325***, $p < .001$.

whether it is sport, the arts, music or scouting. Later, when children enter adolescence and high school, their athletic interests are already on a trajectory that was nurtured in earlier years. Teenagers also have more autonomy, are more identified with peer groups and are less dependent on parents for transportation and direct approval. Finally, as children grow older, other institutions (e.g., school, sport, church, community programs) and supportive adults outside the family often become more influential in a child's development (e.g., teachers, coaches, mentors).

Children Identify Their Sources of Encouragement

The school survey supplied direct evidence about who girls and boys identified as their major sources of encouragement for being involved with sports and exercise. Mothers topped girls' list of those who "encourage me a lot," and fathers ranked the highest among the boys. Similar numbers of girls (47%) as boys (44%) cited their physical education or gym teacher. Indeed, mothers, fathers, physical education

teachers and same-sex friends appeared among the top four sources of encouragement for both girls and boys. Boys, however, said their fathers encourage them to be physically active at a higher rate than that reported by girls. See Table III-12.

Highly educated parents were apt to encourage their children more than parents with lower levels of education. The children of less-educated parents reported that physical education teachers provided substantial encouragement for sports and exercise. See Table III-13 on following page.

The sources of encouragement for being involved with sports and exercise varied by race and ethnicity as well as gender. See Table III-14 on page 60. Among African-American students, for example, mothers were the prime source of encouragement for girls, while fathers filled this role for African-American and Hispanic boys (63% and 63%, respectively). African-American girls also got encouragement from female friends (55%), while both African-American and Hispanic boys cited their male friends as encouraging.

Perhaps the most telling lesson in these results is that there is a wide array of persons in children's lives who encourage them to be involved with sports and exercise. The panoply of support spans parents, peers, physical education teachers, teachers and coaches.

Girls and Boys Identify Their Primary Mentors

In order for children to develop a lasting interest and involvement with sports and physical activity, they need to be taught the rules, skills and social aspects of the game—whether it is basketball, cheerleading, martial arts, skiing, soccer or tennis. The student survey asked, “Which two people have taught you the most about exercise and how to play sports?”

Non-family members were the top two people girls mentioned as their mentors in physical activity. Half as many girls as boys credited their fathers for teaching them about exercise and sport. Girls cited their coaches most frequently (36%), while boys' top mentors were their fathers (46%). See Table III-15 on page 61. Physical education teachers were key

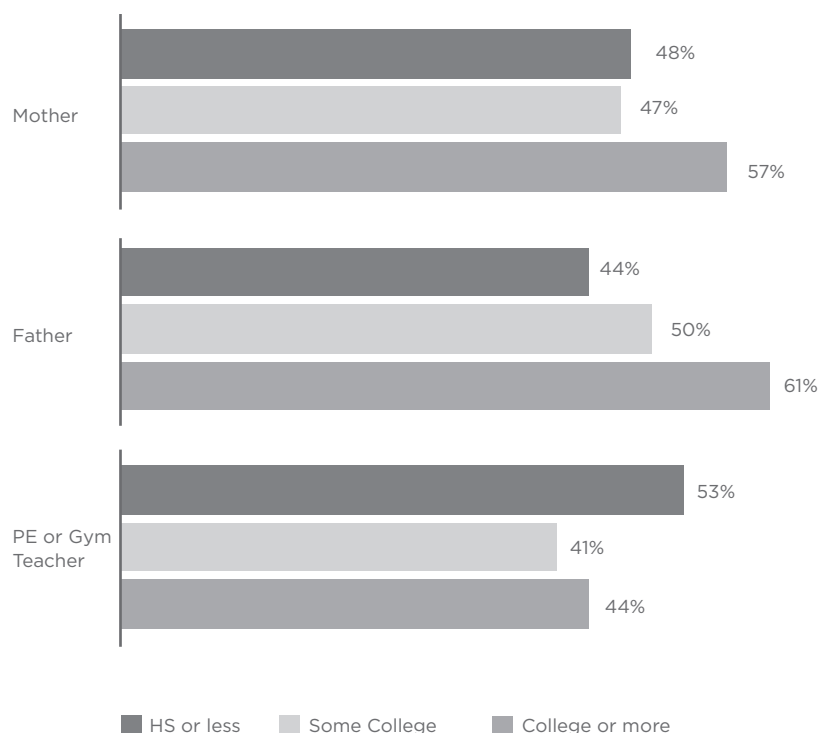
Table III-12: Main Sources of Encouragement for Children's Involvement with Sports and Exercise, by Gender

Percentage of Students Who Say Person “Encourages me a lot” to be Involved in Sports and Exercise

Girls		Boys	
My Mother	55%	My Father	57%
My Father	48%	My Mother	48%
Physical Education or Gym Teacher	47%	Friends Who Are Boys	46%
Friends Who Are Girls	47%	Other Teachers or Coaches	45%
Other Teachers or Coaches	45%	Physical Education or Gym Teacher	44%
Grandmother or Grandfather	29%	Grandmother or Grandfather	28%
Friends Who Are Boys	26%	My Brother	25%
My Sister	23%	My Friends Who Are Girls	23%
My Brother	22%	My Sister	20%

[Base: All Respondents: Girls (N = 1125); Boys (N = 1045)]

Table III-13: Main Sources of Encouragement For Children's Involvement with Sports and Exercise, by Parents' Highest Level of Education



[Base: All Respondents: HS or less (N = 486); Some College (N = 355); College or more (N = 951)]

mentors for girls (35%, ranked second), and to a lesser degree, for the boys (25%, ranked fourth).

Fathers were influential mentors for their sons more so than for their daughters (46% and 28%, respectively). In contrast to the primary role that mothers play encouraging both their daughters and sons, fathers played a larger role than mothers actually teaching their sons and daughters about

sports and exercise. And here too, the results suggest that dads may be spending more time mentoring their sons than daughters; i.e., while 46% of boys cited their dads as teaching them the most about exercise and how to play sports, 28% of girls did so. Indeed, the parent survey results showed that fewer fathers than mothers (73% and 84%, respectively) agreed that "If I wanted to help a girl get more physically active, I know what steps to take in order to make this happen."

Table III-14: Main Sources of Encouragement for Children's Involvement with Sports and Exercise, by Race, Ethnicity and Gender

	Girls			Boys		
	Caucasian (582)	African- American (206)	Hispanic (209)	Caucasian (552)	African- American (178)	Hispanic (171)
My Mother	55%	62%	51%	43%	56%	56%
My Father	49%	46%	44%	53%	63%	63%
Physical Education or Gym Teacher	44%	47%	44%	39%	54%	56%
Other Teachers or Coaches	44%	51%	42%	43%	60%	38%
My Friends Who Are Girls	45%	55%	44%	19%	24%	29%
My Friends Who Are Boys	21%	33%	32%	42%	58%	50%

[Base: All Respondents]

The results also revealed a shift in mentorship in exercise and sport as children move through different grade levels. As children grew older, parents exerted less influence, while the influence of coaches and physical education teachers expanded. See Tables III-16 and III-16b on pages 62 and 63, respectively.

Younger students learned the most from their parents, while older students credited their coaches or physical education teachers. As girls got older, they reported learning more from their coaches and

less from their parents; boys only reported learning less from their mothers as they matured, registering similar levels for fathers and coaches across age groups. This may mean that schools without active physical education programs may leave older students—especially girls—without available mentors.

Girls who were not currently involved with an organized or team sport also identified physical education teachers as the most important source of information about exercise and sports. See Table III-17

Table III-15: Key Mentors Who Taught Children the Most About Sports, by Gender

Girls		Boys	
Coach	36%	My Father	46%
Physical Education Teacher	35%	Coach	40%
My Father	28%	Friend	30%
Friend	26%	Physical Education Teacher	25%
My Mother	23%	Brother	16%
Brother	15%	My Mother	12%
Sister	9%	Sister	3%
Caucasian: 22% African-American: 25% Hispanic: 30%		Caucasian: 13% African-American: 21% Hispanic: 22%	

[Base: All Respondents: Girls (N = 1125); Boys (N = 1045)]

on page 64. Again, physical education appears to be an important resource for girls.

Conclusion

The results show that children’s athletic participation is an asset for many U.S. families—both dual-parent and single-parent families. Sports are part of a wider convoy of social support¹⁸ that not only helps parents with the daunting task of raising children but, in turn, may bring children into closer contact and communication with their parents.

And yet the mosaic of results also suggests that while mothers and fathers provide similar levels of encouragement and support for both their daughters and sons, girls are being shortchanged by dads who may be channeling more energy into mentoring sons than daughters. Of course many fathers support their daughters’ athletic dreams and physical activity. The “old days” have passed when most fathers believed that only boys were interested in sports. And today if

they were asked, most dads would probably express equal support for the athletic exploits of sons and daughters. But whereas 46% of boys ranked dads as “#1” on their list of mentors who “taught them the most” about sports and exercise, dads ranked third on girls’ list, coming in at 28%. Mothers ranked fifth at 23%.

For girls, coaches and physical education teachers topped the list of mentors. While the influence of physical educators on girls is clearly important, it is confined to schools, and furthermore, physical education requirements have waned during the past decade. The trend may mean that an important source of sport mentorship may be dwindling more for girls than boys.

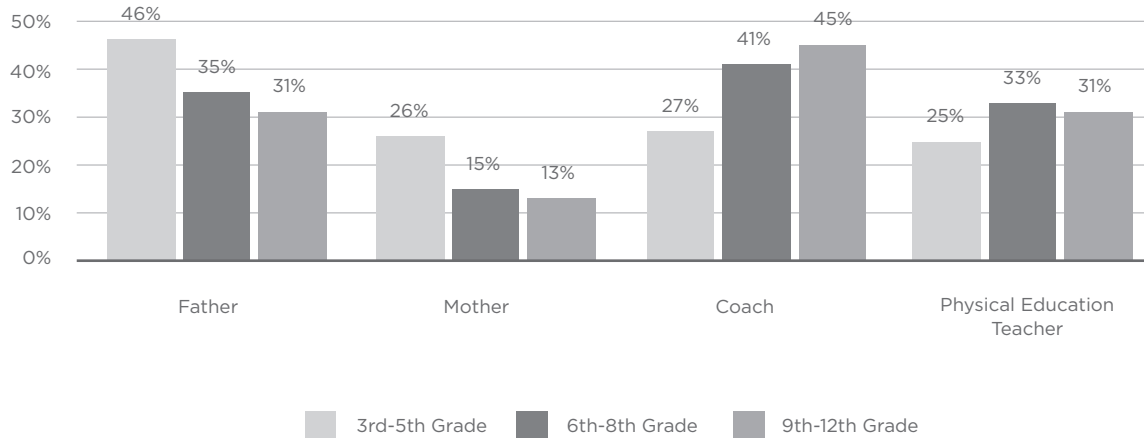
Additionally, Michael Messner’s research shows that it is mainly men that control the administrative helm of community sports and, as a result, are most likely to be the coaches and administrators in local leagues

Table III-16: Percentage of Students Who Say Person Taught Them Most About Exercise and Playing Sports, by Gender



[Base: All Respondents: Girls – 3rd-5th Grade (N = 282); 6th-8th Grade (N = 328); 9th-12th Grade (N = 515); Boys – 3rd-5th Grade (N = 282); 6th-8th Grade (N = 316); 9th-12th Grade (N = 447)]

Table III-16b: Percentage of Students Who Say Person Taught Them Most About Exercise and Playing Sports



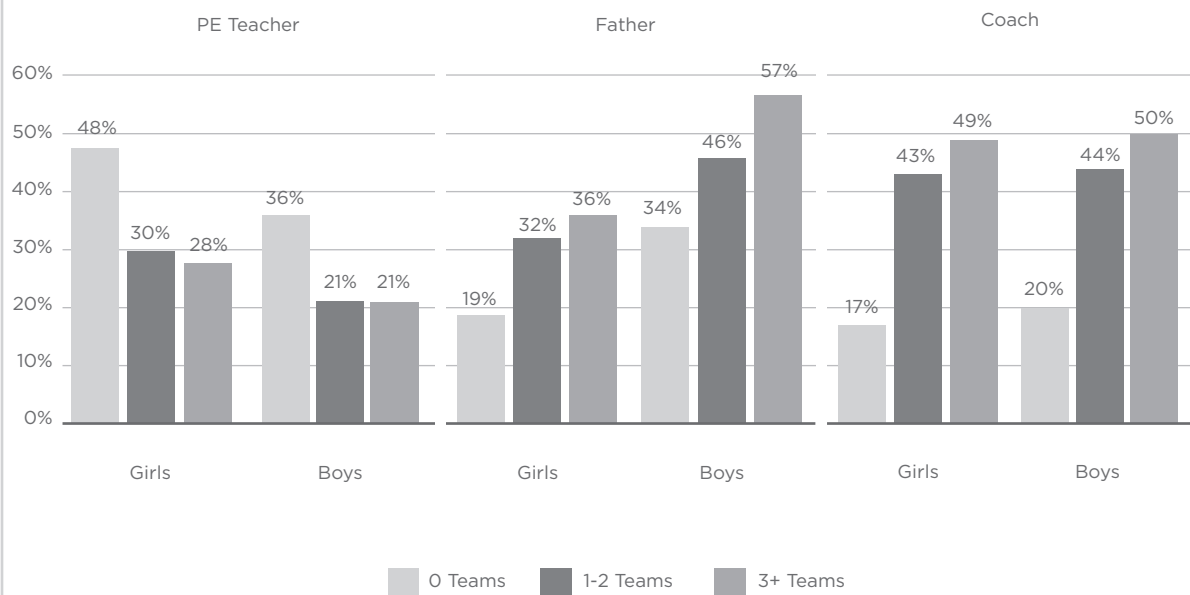
[Base: All Respondents: Total (N = 2185); 3rd-5th Grade (N=568); 6th-8th Grade (N=648); 9th-12th Grade (N=969)]

as well as park and recreation programs.¹⁹ Because of the long history of male domination of community sports programs, he explains, men far outnumber women as administrators, coaches and referees. Women, in contrast, often end up serving as “team moms” instead of coaching or running the leagues or organizations. Whether they are aware of it or not, many of these male leaders may think and act first on behalf of boys’ sports and secondarily on behalf of girls’ sports. One end result, therefore, is that despite the “good intentions” and encouragement of both mothers and fathers, the pattern of gender relations across family, school and community still favors athletic options for boys more so than for girls.

More men need to “step up to the plate” to recruit and mentor young female athletes. Male sport leaders could also “step aside” and help more women to become coaches, administrators and referees at

the community level, which, in turn, would provide girls with needed athletic mentors outside the family and school environments. More can be done at the community level to activate the potential of athletics on behalf of girls, boys and the families that love them.

Table III-17: Mentoring by Physical Education Teachers, Father and Coaches, by the Number of Teams and Gender



[Base: All Respondents: Girls – 0 Teams (N = 329); 1-2 Teams (N = 563); 3+ Teams (N = 218); Boys – 0 Teams (N = 257); 1-2 Teams (N = 458); 3+ Teams (N = 314)]

Part IV: Physical Education

Physical education historically has been a source of physical activity for U.S. children. In recent decades, however, many schools have cut back on physical education offerings or stopped requiring “gym classes” entirely. One in five U.S. schools does not offer physical education (PE) at all, and despite Centers for Disease Control recommendations, only handfuls of elementary, middle and high schools offer daily PE classes (i.e., 4%, 8% and 2%, respectively).²⁰ The findings in this section show that physical education is available for some children but not others and that gender and school location powerfully influence who is being provided access to this health resource.

Uncovering the Gender Gap in Physical Education

Participation in physical education classes varied a lot across the entire sample. About one-third (32%) of all students said they attended physical education classes four or more times per week, while 34% had it only once a week or not at all. Access to physical education also differed by grade level. See Tables IV-1 (below) and IV-2 (on following page). Three times as many students in ninth–10th grades as in earlier grades had no physical education class. At the same time, the percentage of students offered four or more classes per week doubled. By late high school, the majority of students were not offered any physical education classes.

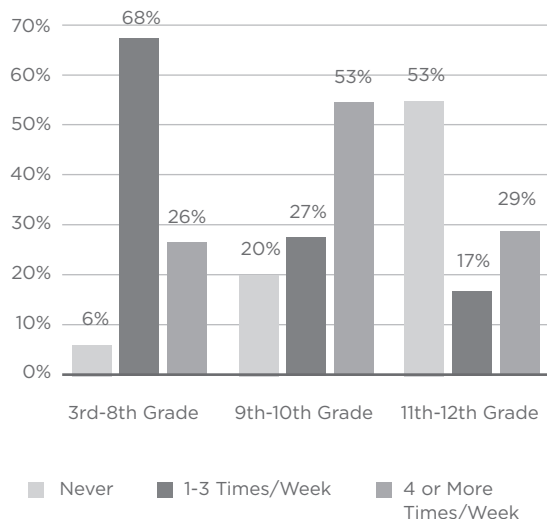
Table IV-1: Frequency of Physical Education or Gym Class

Never	1x/Week	2x/Week	3x/Week	4x+/Week
17%	17%	21%	12%	32%
34%				

Students with more opportunities to be physically active in school appear to do so.	Frequency PE Class	Frequency of Physically Active In Past 7 Days	
		0-1 Day	6 Days or more
The number of youth who are active six or more days/week is four times higher among those offered daily gym classes versus youth without PE class.	Never	31%	10%
	4x+/week	27%	36%

[Base: All Respondents – Total (N = 2185); Girls (N = 1125); Boys (N = 1045); Frequency Active – 0-1 Day (N = 337); 6-7 Days (N = 708)]

Table IV-2: Frequency of Physical Education or Gym Class, by Grade



[Base: All Respondents – 3rd-8th Grade (N = 1216); 9th-10th Grade (N = 478); 11th-12th Grade (N = 491)]

Are U.S. schools providing girls and boys with similar rates of physical education? The evidence from the student survey shows that girls were spending less time in PE classes than boys. Table IV-3 (on following page) shows that when the number of weekly physical education classes for girls and boys were compared, small but statistically significant differences appeared. These gender differences became more marked when examining girls' and boys' access to physical education across grade levels. The results in Table IV-4 (on page 68) reveal similar percentages of girls and boys in third through 10th grades with no physical education classes whatsoever, but a marginally significant gender gap emerged among the 11th- through 12th-graders ($p = .103$). In contrast, significantly higher percentages of 11th- and 12th-grade boys than girls had four or more

physical education classes per week. See Table IV-5 on page 69.

School Location and the Gender Gap

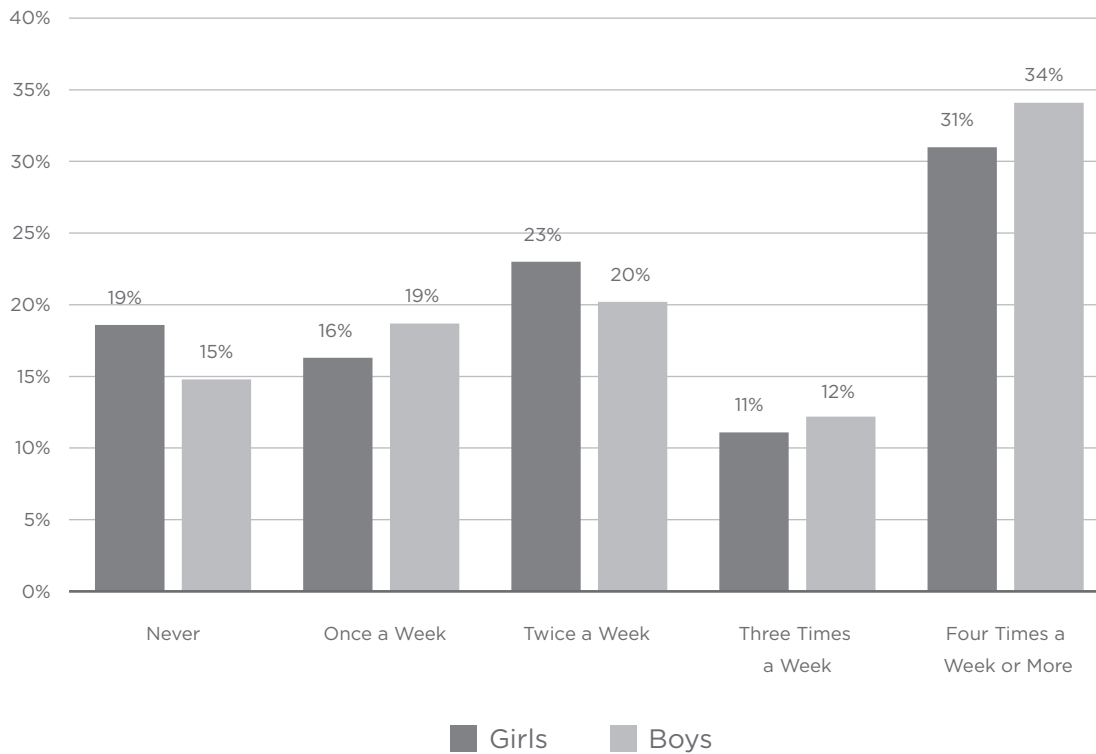
A clustering of “haves” and “have-nots” in physical education exists between girls and boys depending on where they go to school. First, compared with girls, more boys reported having four or more physical education classes in a typical week in most of the grade categories shown in Tables IV-6 and IV-7 on pages 70 and 71, respectively. In suburban schools, more than twice as many sixth- through eighth-grade girls as boys reported higher rates of weekly physical education classes (43% and 20%, respectively). In rural schools, ninth- through 10th-grade girls had higher rates of weekly PE classes than their male counterparts (77% and 65%, respectively). However, in 10 of the 12 school locations and grade levels, similar or higher percentages of boys than girls had four or more weekly PE classes.

Urban girls were the most likely to be among the “have-nots” of U.S. physical education, that is, among those without any weekly physical education classes. By the time urban girls reached the 11th-12th grades, most of them were not engaged in any physical education whatsoever; 84%, compared to 48% of suburban girls and 68% of rural girls. High school boys' rates of noninvolvement with physical education were either similar to or lower than girls' rates. The percentages of noninvolvement among 11th- to 12th-grade suburban girls and boys were similar; i.e., 48% and 53%, respectively. See Tables IV-8 and IV-9 on pages 72 and 73. Generally, it is mainly urban high school girls and secondarily rural high school girls for whom physical education has become a nonexistent facet of their school life.

Physical Education as a Catalyst for Overall Physical Activity

Physical education is an important part of many children's overall physical activity. Yet it is also true that some children are physically active without having any PE classes in their lives. In some schools, for example, student-athletes can sign out of physical

Table IV-3: Number of Weekly Physical Education Classes, by Gender



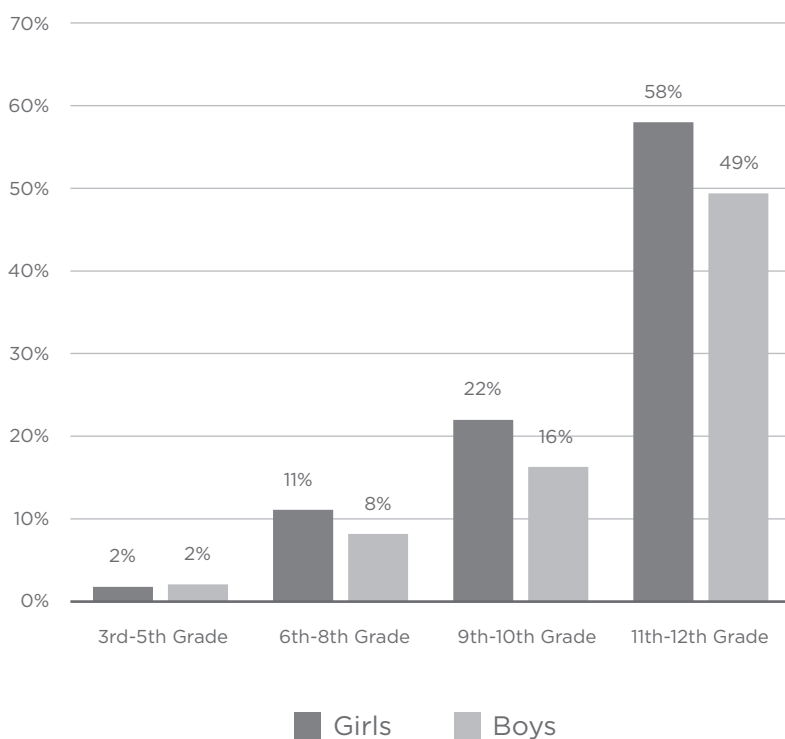
Chi-Square test comparing gender and number times students have PE classes during a typical week.

Chi-Square (4, 2159) = 10.551, $p < .05$.

education classes if they are currently active in a sport. One way to think about school-based physical education is that it is a potential “add-on” to the physical activity in the rest of children’s lives. Another perspective, however, is that physical education helps teach and inspire children in their formative years in ways that expands their total involvement with physical activity in the rest of their lives.

The results in Figure IV-10 (on page 74) show a significant relationship between the frequency of weekly physical education and children’s overall exercise frequency. For both girls and boys, fewer days of weekly physical education were associated with lower rates of average physical activity. There were slight dips for boys with three PE classes a week and girls with four PE classes per week.

Table IV-4: Percent of Students Who Have No Physical Education Classes, by Gender and Grade Level



Chi-Square test comparing gender and number of students who have no PE classes during a typical week, by grade.

3rd-5th Grade: Chi-Square (1, 667) = .048, $p = .826$; 6th-8th Grade: Chi-Square (1, 658) = 1.648, $p = .199$;
 9th-10th Grade: Chi-Square (1, 474) = 2.466, $p = .116$; 11th-12th Grade: Chi-Square (1, 361) = 2.664, $p = .103$.

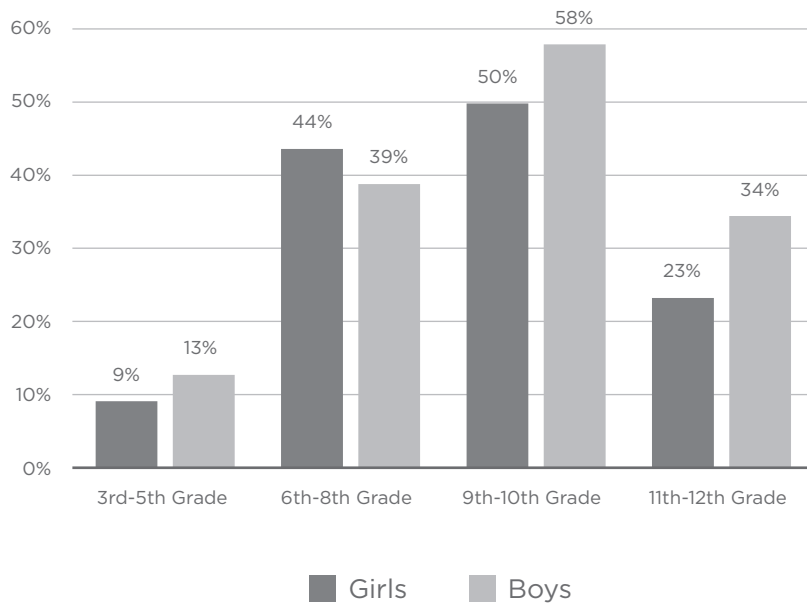
However, the overall relationship held. Among those children with no physical education classes at all, only 9% were frequent exercisers, while 27% were infrequent exercisers. In contrast, among the children with four or more PE classes per week, 35% were frequent exercisers, compared to 24% who were infrequent exercisers.²¹

More exhaustive and detailed research is needed to confirm if and how physical education at school is related to higher rates of total exercise frequency in all aspects of children's lives. The descriptive findings reported here point in this direction.

Conclusion

Urban girls are the "have-nots" of physical education in the United States. The Centers for Disease Control

Table IV-5: Percent of Students Who Have Four or More Physical Education Classes Per Week, by Gender and Grade Level



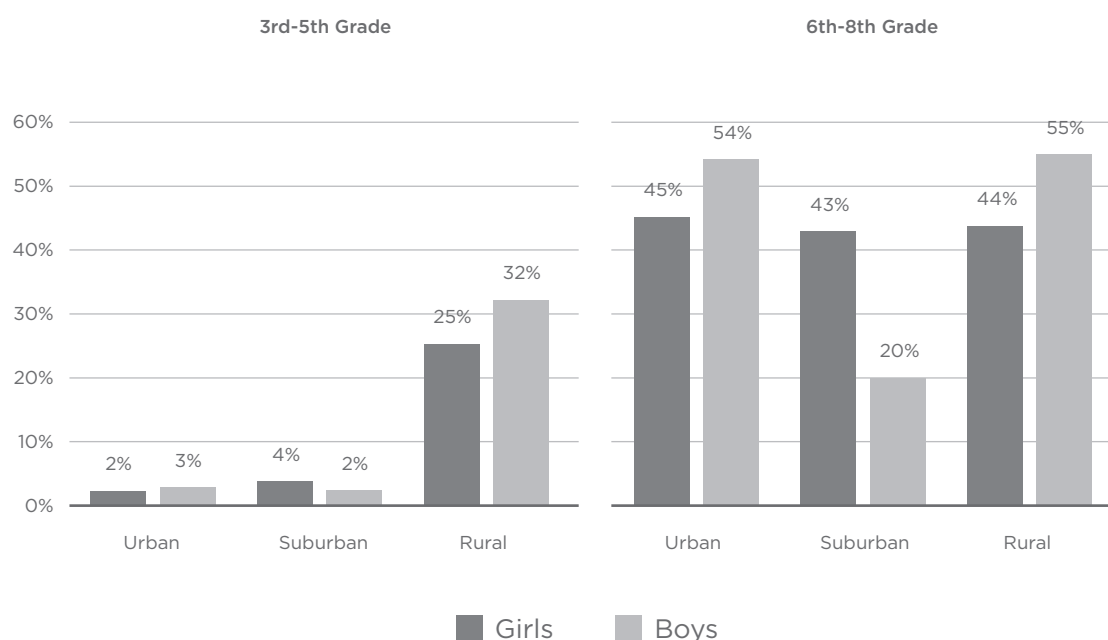
Chi-Square test comparing gender and number of students who have four or more PE classes during a typical week, by grade.

3rd-5th Grade: Chi-Square (1, 667) = .2141, $p = .143$; 6th-8th Grade: Chi-Square (1, 656) = 1.520, $p = .218$;
 9th-10th Grade: Chi-Square (1, 475) = 2.980, $p = .084$; **11th-12th Grade: Chi-Square (1, 361) = 5.559, $p < .05$.**

(2005) found that among 16- and 17-year-olds, only one in three girls attended PE classes, while one in two boys did.²² Our findings show that only about two out of 10 urban girls in 11th and 12th grades attended PE classes, compared with 5.5 out of 10 of their male counterparts. The physical education gender gap increases as children get older, especially among urban girls, but also for rural girls. The declines during adolescence are not as marked for boys.

The gender gap in physical education is particularly sad because, developmentally, early childhood is when girls and boys develop the basic locomotor skills and mindsets around physical activity that can culminate in a lasting active lifestyle. When it is done right, physical education can also instill the curiosity and physical confidence that it takes to try out for and succeed at a new sport or recreational activity. To what extent has the PE curriculum met the needs

Table IV-6: Percent of Students Who Have Four or More Physical Education Classes Per Week, by Gender, Grade Level and School Location



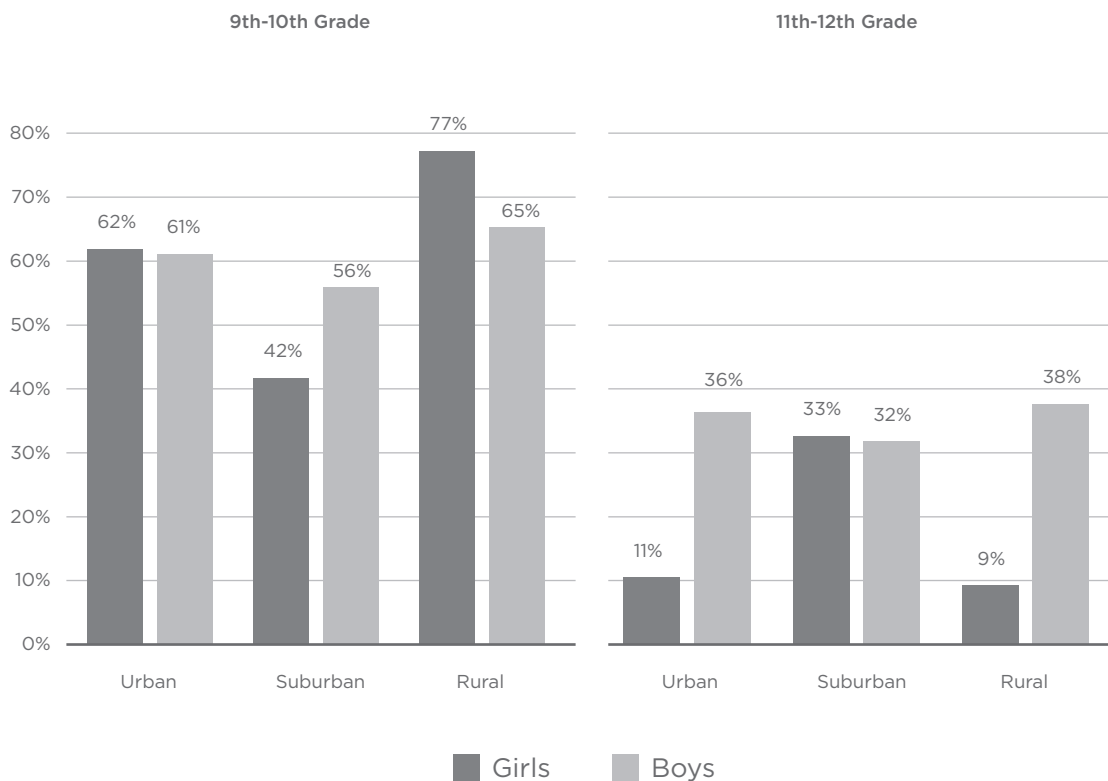
Chi-Square test comparing gender and percent of students who indicate having four or more PE classes in a typical week, by grade and type of community.

Urban - 3rd-5th Grade: Chi-Square (1, 272) = .105, $p = .746$; 6th-8th Grade: Chi-Square (1, 191) = 1.514, $p = .219$;
 Suburban - 3rd-5th Grade: Chi-Square (1, 189) = .310, $p = .578$; **6th-8th Grade: Chi-Square (1, 337) = 19.335***, $p < .001$** ;
 Rural - 3rd-5th Grade: Chi-Square (1, 205) = 1.068, $p = .301$; 6th-8th Grade: Chi-Square (1, 129) = 1.243, $p = .265$.

of girls and less athletically adept boys? Margaret Carlisle Duncan reviewed the emerging research on how timeworn gender biases and practices have been part of standard physical education classes. She concludes that the “traditional subject matter of physical education...privileges boys while disadvantaging girls”.²³ What is sometimes called the “hidden curriculum”²⁴ in physical education emphasizes competition and the highest level of physical skills rather than promoting health and

physical activity for its own sake. These expectations, in turn, have often given boys an advantage because of their larger size and greater level of experience learning sports. Boys who bring athletic skill and confidence with them into PE classes excel, while girls and less physically adept boys often experience anxiety and marginalization. In addition, because many girls enter sports later in childhood than boys, the development of their athletic skills and interests is slowed down, thereby making them feel foolish and

Table IV-7: Percent of Students Who Have Four or More Physical Education Classes Per Week, by Gender, Grade Level and School Location



Chi-Square test comparing gender and percent of students who indicate having four or more PE classes in a typical week, by grade and type of community.

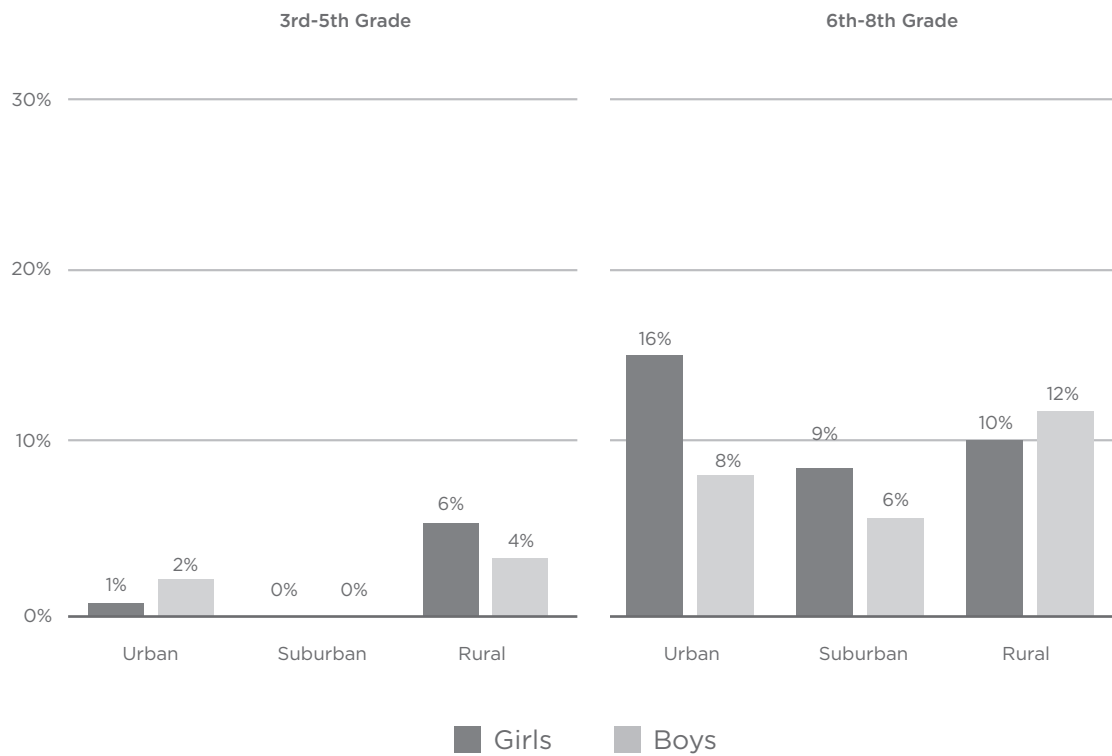
Urban – 9th–10th Grade: Chi-Square (1, 118) = .045, $p = .832$; 11th–12th Grade: Chi-Square (1, 42) = 4.014*, $p < .05$;
 Suburban – 9th–10th Grade: Chi-Square (1, 308) = 6.261*, $p < .05$; 11th–12th Grade: Chi-Square (1, 213) = .010, $p = .921$;
 Rural – 9th–10th Grade: Chi-Square (1, 48) = .815, $p = .367$; 11th–12th Grade: Chi-Square (1, 105) = 12.192**, $p < .001$.

out of place in a competitive PE environment. (See Section VI of this report for additional discussion.)

More research is needed that focuses on how the provision of physical education among pre-teens interfaces with early involvement with sports

and physical activity in general. Researchers also need to understand the extent that continued enrollment in physical education is related to higher rates of physical activity and athletic participation among adolescents.

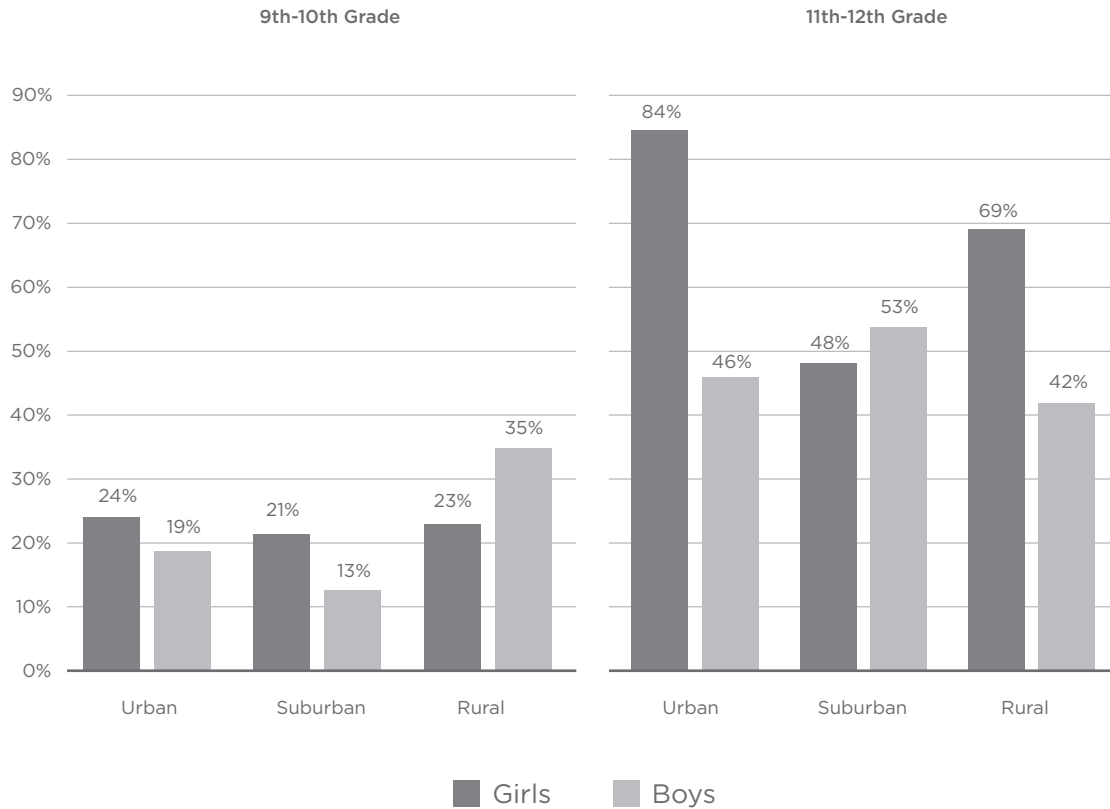
Table IV-8: Percent of Students Who Have No Weekly Physical Education Classes, by Gender, Grade Level and School Location



Chi-Square test comparing gender and percent of students who indicate having no PE classes during a typical week, by grade and type of community.

Urban - 3rd-5th Grade: Chi-Square (1, 272) = .928, $p = .335$; 6th-8th Grade: Chi-Square (1, 190) = 2.234, $p = .135$;
 Suburban - 3rd-5th Grade: Chi-Square (1, 189) = N/A; 6th-8th Grade: Chi-Square (1, 337) = 1.023, $p = .312$;
 Rural - 3rd-5th Grade: Chi-Square (1, 205) = .494, $p = .482$; 6th-8th Grade: Chi-Square (1, 130) = .094, $p = .759$.

Table IV-9: Percent of Students Who Have No Weekly Physical Education Classes, by Gender, Grade Level and School Location

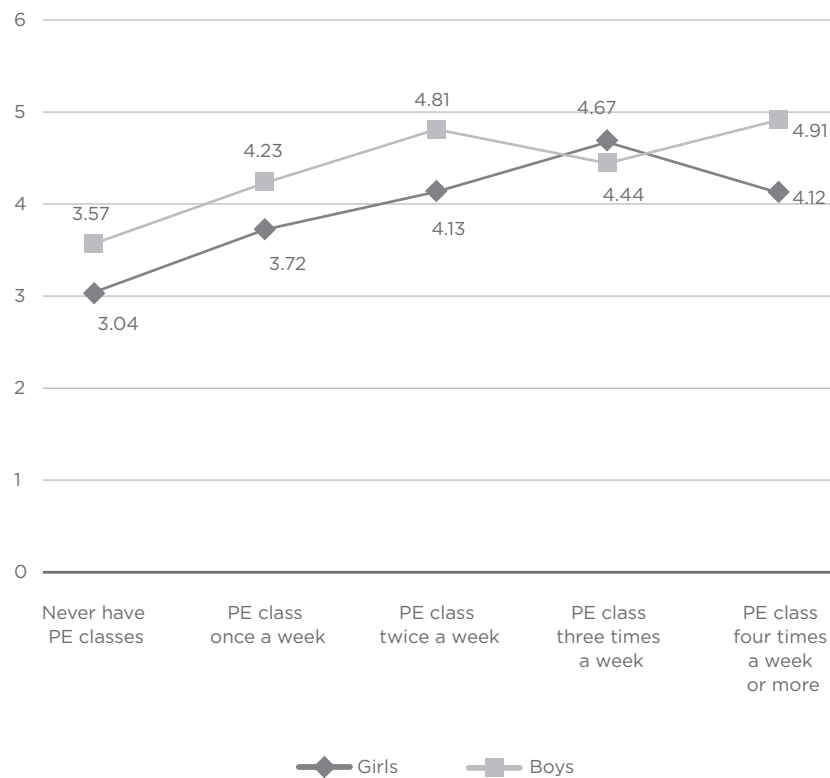


Chi-Square test comparing gender and percent of students who indicate having no PE classes during a typical week, by grade and type of community.

Urban – 9th-10th Grade: Chi-Square (1, 117) = .484, $p = .486$; 11th-12th Grade: Chi-Square (1, 42) = 5.301*, $p < .05$;
 Suburban – 9th-10th Grade: Chi-Square (1, 308) = 4.109*, $p < .05$; 11th-12th Grade: Chi-Square (1, 213) = .795, $p = .372$;
 Rural – 9th-10th Grade: Chi-Square (1, 48) = .815, $p = .367$; 11th-12th Grade: Chi-Square (1, 105) = 8.066***, $p < .01$.

Figure IV-10: Frequency of PE Classes and Vigorous Physical Activity, by Gender

Average number of days students are physically active for a total of at least 60 minutes



Bivariate Regression between number of PE classes and number of days students exercise for at least 60 minutes.

Girls: $n = 1064$, $r = .174^{***}$, $p < .001$; Boys: $n = 1087$, $r = .181^{***}$, $p < .001$.

Part V: Athletic Participation and Children's Well-Being

Advocates for youth sports often tout its favorable influence on children's health and emotional well-being. This study explored a variety of ways that sports involvement intersects with the overall development of girls and boys. Here "health and well-being" are broadly defined to include physical health, emotional health and successful social adaptation in school. The results show that for many U.S. children, athletic participation contributes to general health and body esteem, healthy weight, social relationships, quality of life, and educational achievement.

Physical and Emotional Health

Does athletic participation influence how children think and feel about their health and bodies? In order to measure children's basic physical well-being, students were asked to describe their own health. Responses included "excellent," "very good," "good," "fair" and "poor." The student survey also included a three-item scale that measures body esteem, which provided a basic touchstone for assessing children's emotional health.

Self-Reported Health

Within each of the three clusters of grade levels, higher percentages of female athletes than non-athletes described their health as "excellent." As girls get older, they were less apt to see their health as excellent, and yet, three times as many female high school athletes as non-athletes (20% and 6%, respectively) labeled their health as excellent. No significant differences between female non-athletes and athletes occurred among the sixth- through eighth-graders. See Table V-1 on following page. More than one-third of the third- through fifth-grade boys rated their health as excellent (regardless of athletic status). Male athletes were more apt to rate their health as excellent among the sixth through eighth grades and ninth through 12th grades.

The self-reported health of girls was also related to the number of sports teams they played on during the past year. See Table V-2 on page 77. While 51%

of highly involved third- through fifth-grade girls said their health was excellent, for example, 32% of their non-athletic counterparts did so. Three times as many moderately involved high school female athletes than non-athletes reported excellent health (22% and 6%, respectively). The one exception was among highly involved female high school athletes (11%) who, instead, tended to classify their health as "very good" more often than "excellent."

Among the boys, no differences in self-rated health issued for the third- through fifth-graders, regardless of the degree of their athletic involvement. Both the moderately involved and highly involved athletes, however, were more likely than the non-athletes from sixth through 12th grades to rate their health as excellent. See Table V-2.²⁵

Sport and Body Esteem

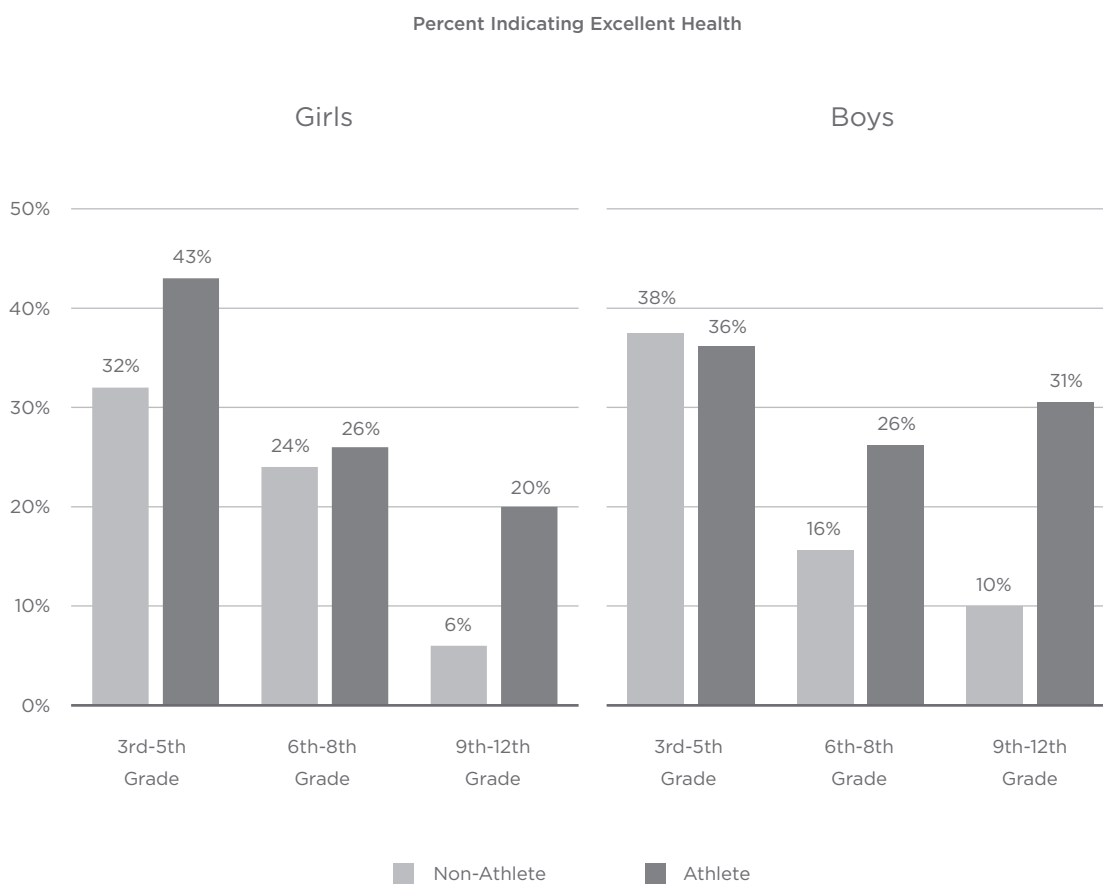
While boys are no strangers to mixed feelings about their bodies, girls are especially pushed by mass media to develop unrealistic ideal body images, and this can lead to unhealthy eating behaviors and personal dissatisfaction.²⁶ A Harvard Medical School survey of fifth- through 12th-grade girls found that nearly six of 10 were dissatisfied with their bodies.²⁷ Whether young persons feel good about their bodies is an important component of psychological well-being.

This study found that athletic participation was associated with the body esteem of both girls and boys. Body esteem was measured by responses to three statements about how students feel about their bodies.²⁸ See Table V-3 on page 78.

The favorable contributions of sport to body esteem, moreover, were evident within grade levels and school locations. More highly involved athletes scored higher on the body esteem measure. See Table V-4 on page 79.

High scores on body esteem were more likely at all grade levels among girls who played three or more sports per year. Moderately involved (one or two

Table V-1: Athletic Participation and Self-Described Health, by Gender

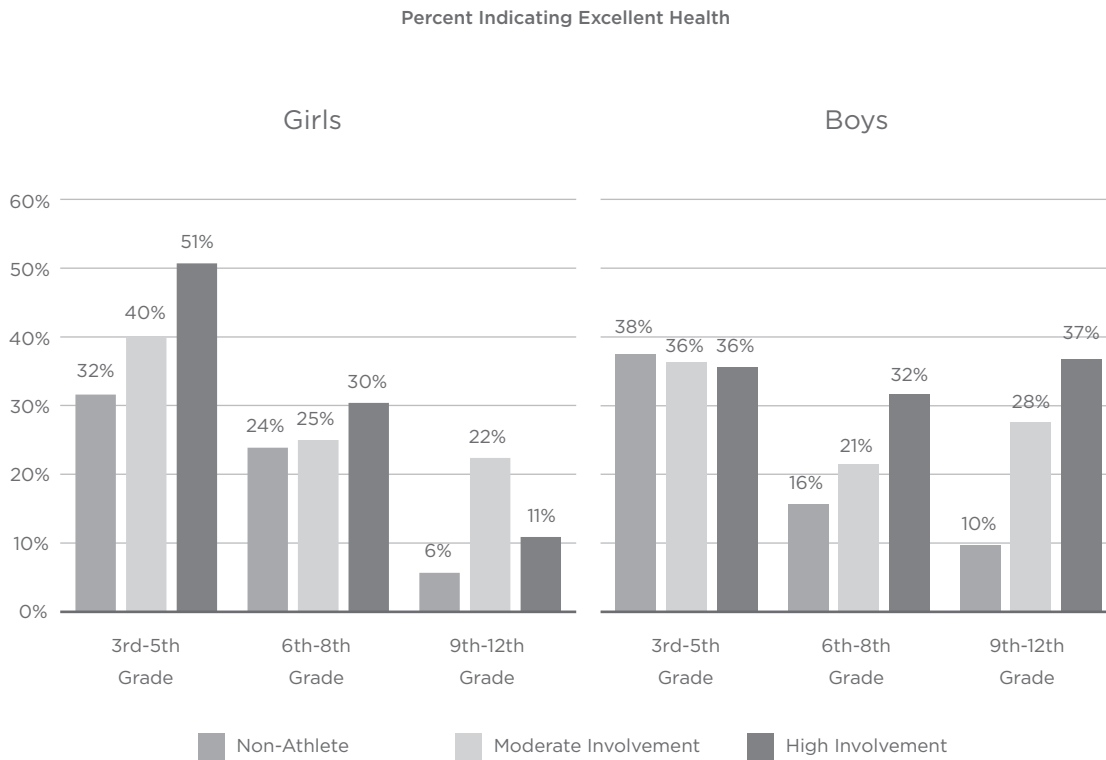


Chi-Square test comparing athletic involvement and percent of student who indicated excellent health, by gender and grade.

Girls - 3rd-5th Grade: Chi-Square (1, 327) = 3.935*, $p < .05$; 6th-8th Grade: Chi-Square (1, 314) = .239, $p = .625$; 9th-12th Grade: Chi-Square (1, 416) = 14.887***, $p < .001$.

Boys - 3rd-5th Grade: Chi-Square (1, 337) = .040, $p = .842$; 6th-8th Grade: Chi-Square (1, 340) = 3.723 $p = .054$; 9th-12th Grade: Chi-Square (1, 409) = 20.472***, $p < .001$.

Table V-2: Athletic Participation and Self-Described Health, by Gender and Grade Level



Chi-Square test comparing athletic involvement and percent of students who indicated excellent health, by gender and grade.

Girls – 3rd-5th Grade: Chi-Square (2, 327) = 6.329*, $p < .05$; 6th-8th Grade: Chi-Square (2, 314) = .870, $p = .647$; 9th-12th Grade: Chi-Square (2, 416) = 19.433***, $p < .001$.

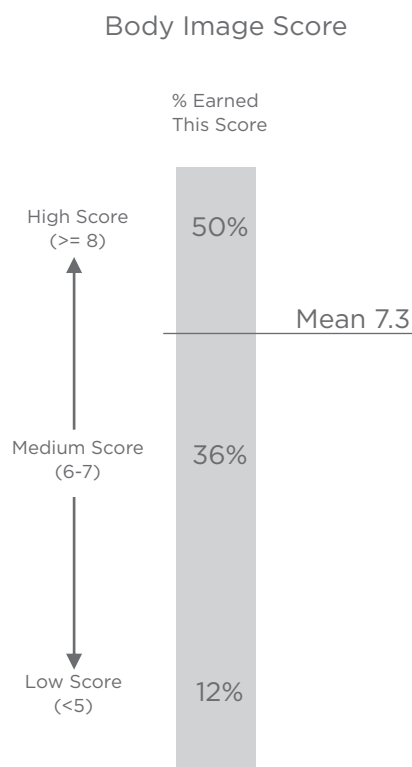
Boys – 3rd-5th Grade: Chi-Square (2, 337) = .070, $p = .965$; 6th-8th Grade: Chi-Square (2, 340) = 7.535*, $p < .05$; 9th-12th Grade: Chi-Square (2, 409) = 22.704***, $p < .001$.

Table V-3: Body Esteem Score

Body Image Score reflects students' response to statements about how they feel about their bodies. Students with high scores are more confident and comfortable with their bodies; students with low score are less so.

Body Image Score
I feel confident about my body.
I don't like the way my body looks.
My body is getting healthier.

These scores were computed by summing ratings from the statements listed above. Respondents were grouped based on aggregate scores: "Low Score" = 5 or below; "Medium Score" = 6-7; "High Score" = 8 and above



[Base: Total Respondents (N = 2185)] Cronbach's α = .628.

sports per year) female athletes had higher body esteem than non-athletes in third through fifth grades and high school, but not in sixth to eighth grades. Among boys, athletes scored higher than non-athletes on body esteem except in third through fifth grades. See Table V-5 on page 80.

Finally, the average scores on body esteem of non-athletes and athletes were sorted by school location and presented in a line graph in Tables V-6 and V-7 (on page 81). While female athletes showed significantly higher rates of body esteem in urban and rural schools, the differences between moderately involved and highly involved athletes in suburban schools were not statistically significant. Male athletes in all three school locations, however, showed significantly higher scores on body esteem than their non-athletic counterparts.

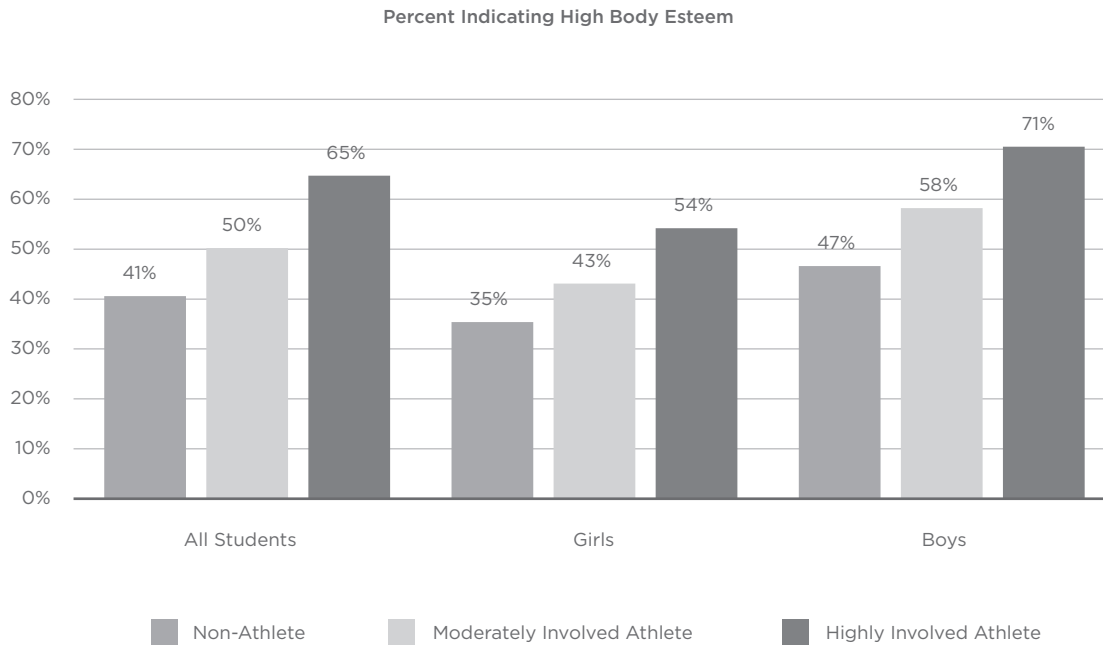
Athletic Participation and Risk for Overweight

Historians point to the passage of Title IX in 1972 as a giant legislative stride forward for girls' involvement in sports. Recent research adds a new public health dimension to Title IX's impact on girls' lives. The acceleration of 12- to 17-year-old girls' participation in school sports between the 1971-75 and 1976-80 eras was accompanied by a 24% increase in physical activity and a significant decrease in the obesity rate of girls.²⁹

Today, more than three decades later, physical activity and sport are recognized as viable strategies to combat the growing rates of overweight and obesity among children. About three in 10 6- to 11-year-olds and 12- to 19-year-olds are overweight. The rates of obesity among these same age groups are 15.4% and 15.5%, respectively.³⁰ Overweight and obese children are at greater risk for physical health problems such as Type-II diabetes, hypertension, asthma, sleep apnea, orthopedic problems, coronary heart disease and some cancers.³¹

In addition to these physical health risks, the negative meanings and stigma surrounding obesity can erode

Table V-4: Athletic Involvement and Body Esteem, by Gender

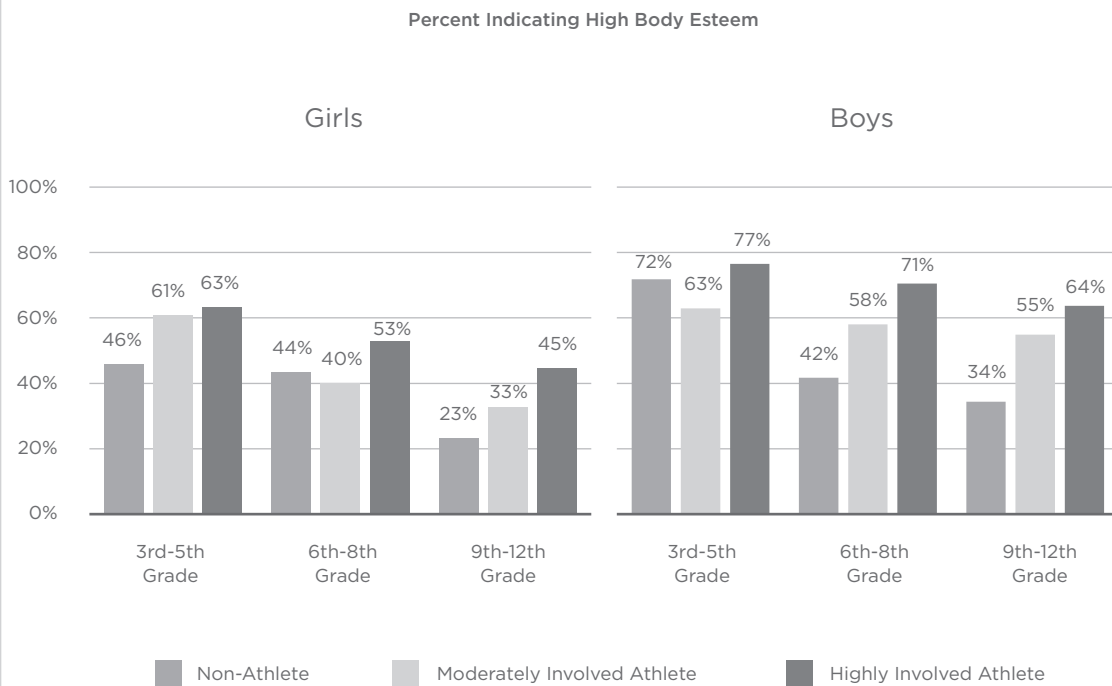


Chi-Square test comparing athletic participation and percent of students who indicated high body esteem, by gender.

Total: Chi-Square (2, 2123) = 65.785***, $p < .001$; Girls: Chi-Square (2, 1085) = 17.321***, $p < .001$;

Boys: Chi-Square (2, 1073) = 35.786***, $P < .001$.

Table V-5: Athletic Involvement and Body Esteem, by Gender and Grade Level

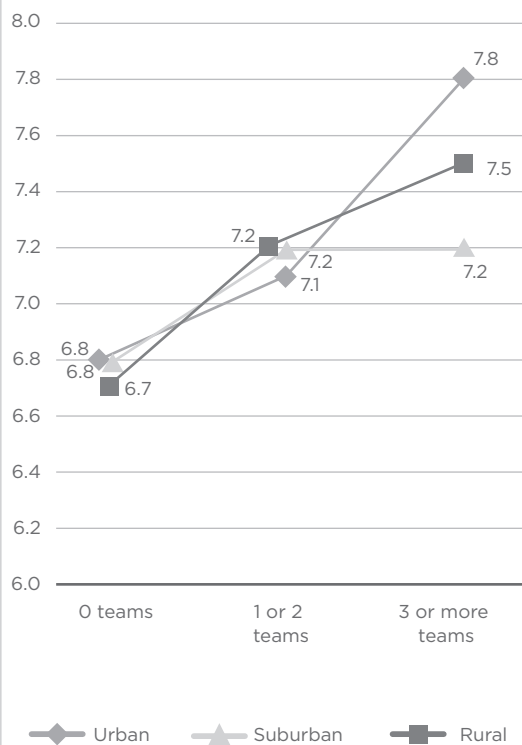


Chi-Square test comparing athletic involvement and percentages of students who indicated high body esteem, by gender and grade.

Girls – 3rd-5th Grade: Chi-Square (2, 314) = 6.733*, $p < .05$; 6th-8th Grade: Chi-Square (2, 309) = 3.607, $p = .165$; 9th-12th Grade: Chi-Square (2, 416) = 8.985*, $p < .05$.

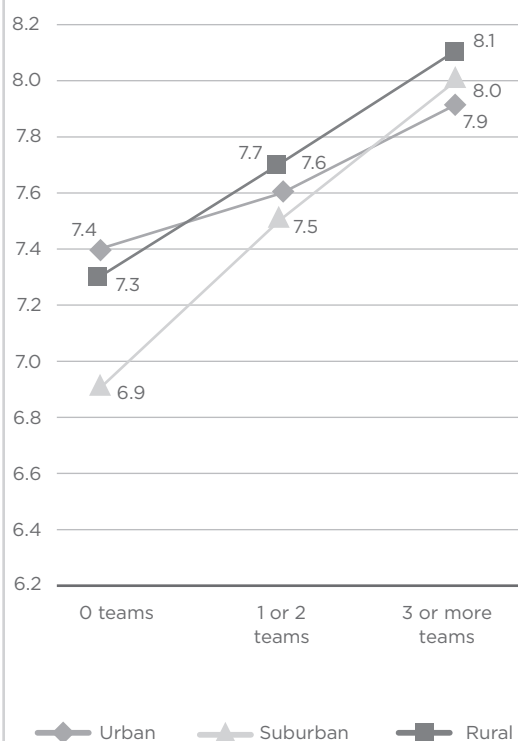
Boys – 3rd-5th Grade: Chi-Square (2, 332) = 6.026*, $p < .05$; 6th-8th Grade: Chi-Square (2, 332) = 15.667 $p < .001$; 9th-12th Grade: Chi-Square (2, 411) = 20.83**, $p < .001$.

Table V-6: Athletic Involvement and Girls' Body Esteem, by School Location



Urban (n = 217): $r = .245^{***}$, $p < .001$;
 Suburban (n = 456): $r = .077$, non Sig;
 Rural (n = 174): $r = .151^*$, $p < .05$.

Table V-7: Athletic Involvement and Boys' Body Esteem, by School Location



Urban (n = 268): $r = .207^{***}$, $p < .001$;
 Suburban (n = 441): $r = .288^{***}$, $p < .001$;
 Rural (n = 221): $r = .171^*$, $p < .05$.

young people’s self-confidence and motivation to pursue educational goals.³² Obese high school girls attend college at lower rates than their non-obese counterparts.³³

Several key questions were raised in this study. Is participation in sports associated with healthy body weight among children? Do athletes display reduced risk for being overweight? Is the extent of involvement with sports linked to the body weight fluctuations of both girls and boys?

To answer these questions, the student survey asked students to report their height and weight. This information was used to calculate a body mass index according to the Centers for Disease Control’s guidelines. Children were classified into “healthy weight,” “at risk for overweight” and “overweight” categories. See Table V-8. Substantial numbers of children did not provide their height or weight on the survey, particularly third- through fifth-graders.

Healthy Weight

One quarter of all students in third through 12th grades had a high BMI. Boys were more likely to have high BMI than girls. See Tables V-9 and V-10 on following page. Generally, students with the very highest BMIs were least likely to play sports. Overweight girls were more likely than those with lower BMIs to never have played a team or organized sport. The pattern was the same among boys. See Table V-11 on page 84. Larger percentages of boys were overweight than girls in each racial and ethnic category, but only white children had a statistically significant difference between overweight boys and girls. See Table V-12 on page 85.

Both moderately and highly involved high school athletes were more apt to report a healthy BMI than their non-athletic counterparts. Eighty percent of high school girls who played on three or more athletic teams had a healthy BMI, compared with 75% of moderately involved athletes and 60% of the non-athletes. The extent of athletic involvement, however, was not significantly related to healthy weight among

Table V-8: Measuring Body Mass Index

Body Mass Index is calculated using the child’s self-reported height and weight. It is an indicator of body fatness for children and teenagers. For children and teens, BMI is age- and sex-specific and is often referred to as BMI-for-age.

Formula: weight (lbs.) / [height (m)] x 703

After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking.

Weight Status Category	Percentile Range
Underweight	Less than 5th percentile
Healthy Weight	5th to less than 85th percentile
At Risk of Overweight	85th to less than 95th percentile
Overweight	95th percentile or greater

younger and older children of both sexes (fifth through 12th grades). See Table V-13 on page 86.

The findings for boys follow a similar pattern as the girls, however, lower percentages of boys overall reported healthy body weights. No significant differences appear at the fifth- to eighth-grade levels or the ninth to 12th grades.

The association between athletic involvement and healthy weight among high school children is particularly salient where the community income level is below \$50,000—particularly for girls. The concept of “community income level” refers the general economic conditions of a community in which a particular school is embedded. The community income level was measured by the median family income within the census tract in which the school

Table V-9: Distribution of Children's Body Mass Index

Under Weight	Healthy Weight	At Risk Overweight	Overweight
3%	58%	16%	13%
High BMI: 28%			

Did **not** provide height or weight: 11%

[Base: All Respondents - Total (N = 2185); Girls - 3rd-5th Grade (N = 282); 6th-8th Grade (N = 328); 9th-12th Grade (N = 515); Boys - 3rd-5th Grade (N = 282); 6th-8th Grade (N = 316); 9th-12th Grade (N = 447)]

Table V-10: Distribution of Body Mass Index, by Gender

	Under Weight	Healthy Weight	At Risk Overweight	Overweight
Girls	3%	61%	14%	11%
High BMI: 25%				
Boys	4%	55%	18%	15%
High BMI: 32%				

Did **not** provide height or weight: 11%

[Base: All Respondents - Total (N = 2185); Girls - 3rd-5th Grade (N = 282); 6th-8th Grade (N = 328); 9th-12th Grade (N = 515); Boys - 3rd-5th Grade (N = 282); 6th-8th Grade (N = 316); 9th-12th Grade (N = 447)]

Table V-11: Athletic History and Children's Body Mass Index, by Gender

Sport Participation	Girls			Boys		
	Healthy Weight (679)	At Risk Overweight (175)	Overweight (111)	Healthy Weight (578)	At Risk Overweight (175)	Overweight (157)
Current Participant	71%	70%	62%	79%	75%	66%
Past Participant	11%	18%	12%	12%	10%	15%
Never Participated	16%	11%	25%	9%	14%	18%

[Base: All Respondents]

was located. See Tables V-14 and V-15 on page 87. While 68% of female non-athletes indicated healthy body weight, 82% of moderately involved athletes and 92% of highly involved athletes did so. The respective figures among high school males were 39%, 62% and 51%. Differences in the rates of healthy weight between non-athletes and athletes were not significant among the children with community income levels of \$50,000 and above.

Risk for Overweight

Is athletic participation linked with reduced risk for being overweight among children? No association was evident among fifth- to eighth-grade girls or boys, but sports participation appeared to be a factor during high school. See Table V-16 on page 88. Compared to female non-athletes, fewer highly involved high school athletes were overweight (32%

and 20%, respectively). For high school boys, the non-athletes registered the highest risk for being overweight (43%).

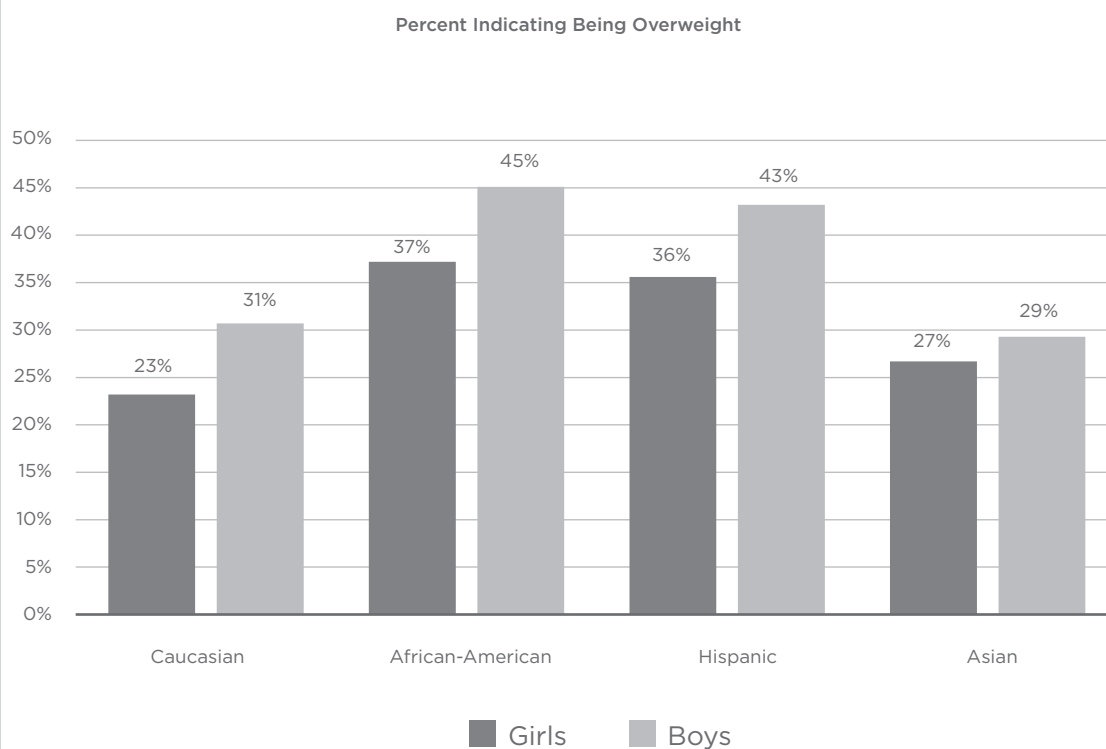
Sedentary Lifestyles and Fast Food

Television watching has been linked with sedentary lifestyle, which, in turn, is said to elevate risk for being overweight among children. Similarly, fast food consumption is often said to contribute to obesity. The specific question raised in this study was whether children's athletic participation is associated with lower rates of television watching and fast food consumption.

Television Watching

The general findings from the school survey showed that both girls and boys watched less television as they get older. See Tables V-17 and V-18 (on pages 88 and 89, respectively). While the third- to fifth-

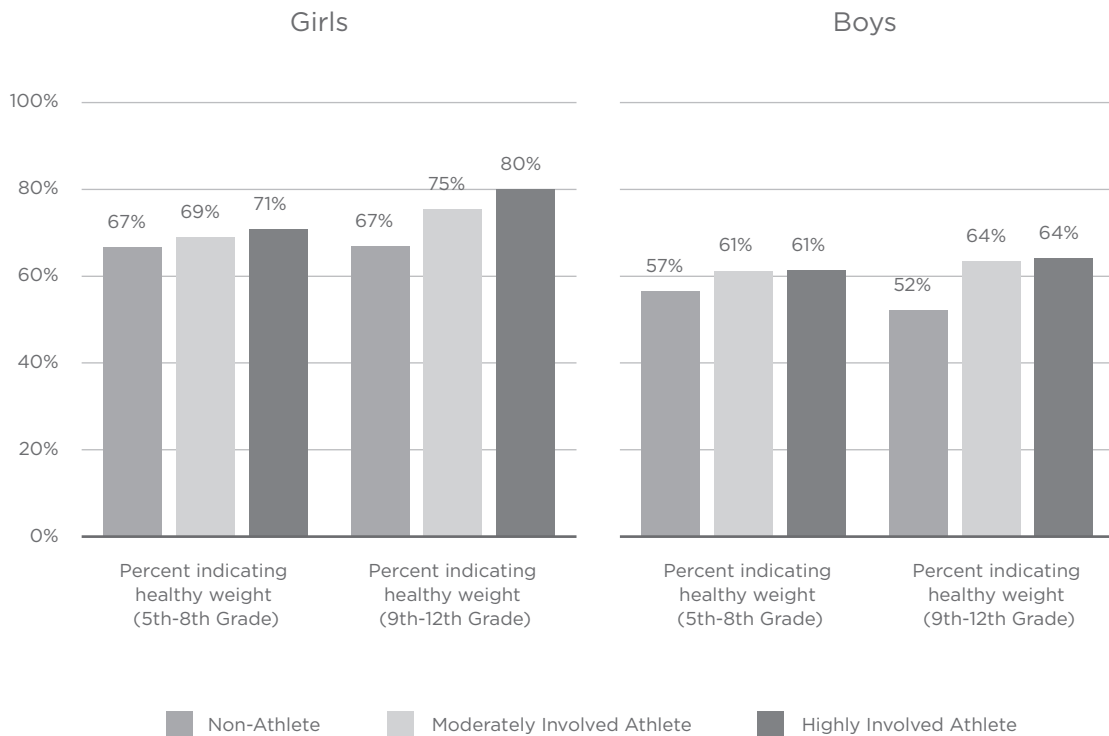
Table V-12: Risk for Being Overweight, by Gender, Race and Ethnicity



Chi-Square test comparing gender and percent of students who are overweight, by race and ethnicity.

Caucasian: Chi-Square (1, 1061) = 7.619**, $p < .01$; African-American: Chi-Square (1, 270) = 1.734, $p = .188$; Hispanic: Chi-Square (1, 322) = 1.945, $p = .163$; Asian: Chi-Square (1, 205) = .209, $p = .647$.

Table V-13: Athletic Involvement and Healthy Weight, by Gender and Grade Level



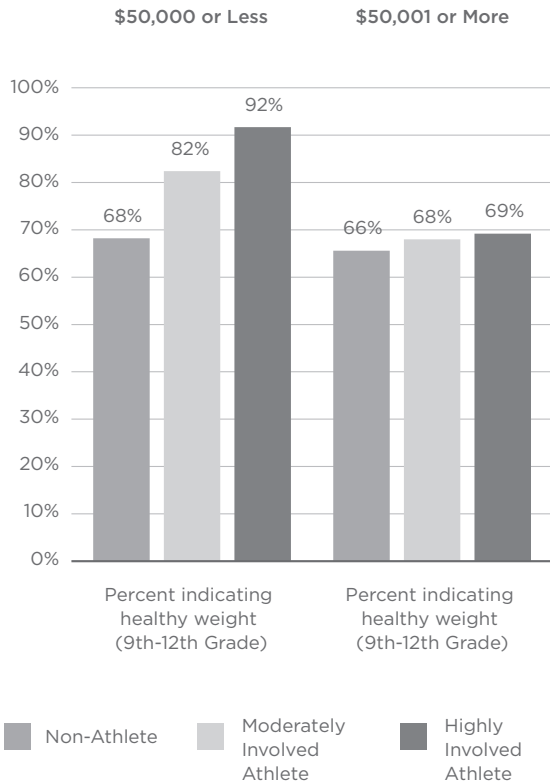
Chi-Square test comparing athletic involvement and percent of students who indicated healthy weight, by gender and grade.

Girls - 5th-8th Grade: Chi-Square (2, 382) = .397, $p = .820$; 9th-12th Grade: Chi-Square (2, 392) = 3.789, $p = .150$.
Boys - 5th-8th Grade: Chi-Square (2, 442) = .683, $p = .711$; 9th-12th Grade: Chi-Square (2, 377) = 4.063, $p = .131$.

T-test comparing the percent of Non-Athletes and Highly involved athletes who indicated healthy weight, by gender and grade level.

9th-12th Grade Boys: $t = -1.712$, $df = 191$, $P < .10$; 9th-12th Grade Girls: $t = -1.684$, $df = 179$, $P < .10$.

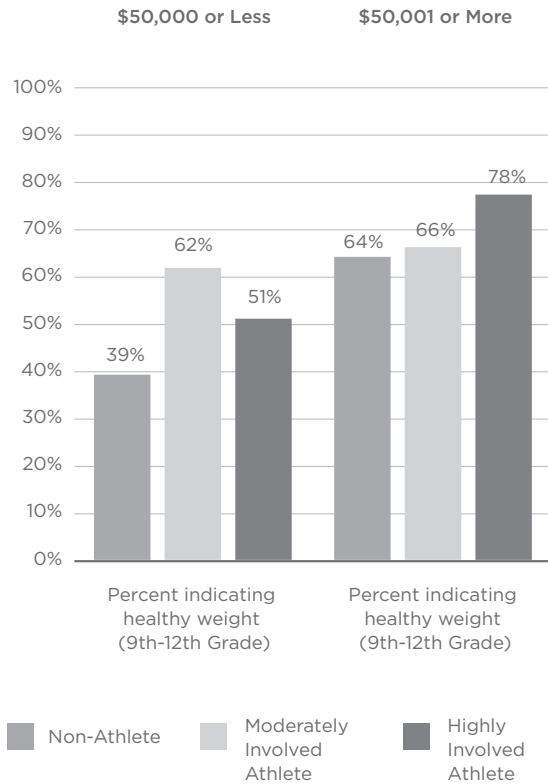
Table V-14: Athletic Involvement and Healthy Weight for High School Girls, by Community Income Level



Chi-Square test comparing athletic involvement and high school girls who indicated healthy weight, by community income level.

\$50,000 and Lower: Chi-Square (2, 199) = 6.452*, $p < .05$;
\$50,001 and Higher: Chi-Square (2, 193) = .146, $p = .930$.

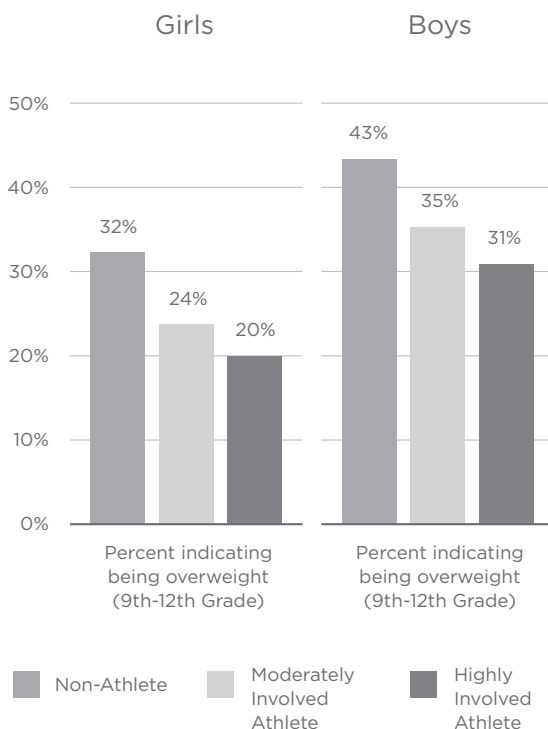
Table V-15: Athletic Involvement and Healthy Weight for High School Boys, by Community Income Level



Chi-Square test comparing athletic involvement and high school boys who indicated healthy weight, by community income level

\$50,000 and Lower: Chi-Square (2, 196) = 7.351*, $p < .05$;
\$50,001 and Higher: Chi-Square (2, 180) = 2.248, $p = .325$.

Table V-16: Athletic Involvement and Risk for Overweight Among High School Students, by Gender



Chi-Square test comparing athletic involvement and students who indicated being overweight, by gender.

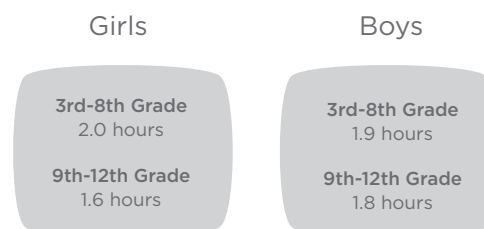
Girls: Chi-Square (2, 391) = 4.195, $p = .123$;
Boys: Chi-Square (2, 377) = 3.721, $p = .156$.

graders watched the most television, the high school students watched the least. Children from lower-income families watched more television than children from more well-to-do families. How did athletic participation fit into this larger picture?

Little is known about the television viewing habits of young athletes. Does the time children spend hitting volleyballs, swimming laps or practicing basketball and judo reduce the number of hours they spend in front of the television? Perhaps reduced rates of television watching contribute to a greater chance that young people will be involved with sports.

Across the general student population, athletes watched less TV than non-athletes. See Table V-19 on page 90. A breakdown of the relationship by gender, however, produced more nuanced results. First, fewer third- to eighth-grade female athletes than non-athletes watched more than 21 hours of TV during the week (21% and 35%). The 5% difference among high school girls approached being statistically significant ($p < .08$). Second, for the boys, fewer high school athletes spent more than 21 hours per week in front of the TV than their non-athletic peers (18% versus 34%).

Table V-17: School Day TV Viewership By Age and Gender

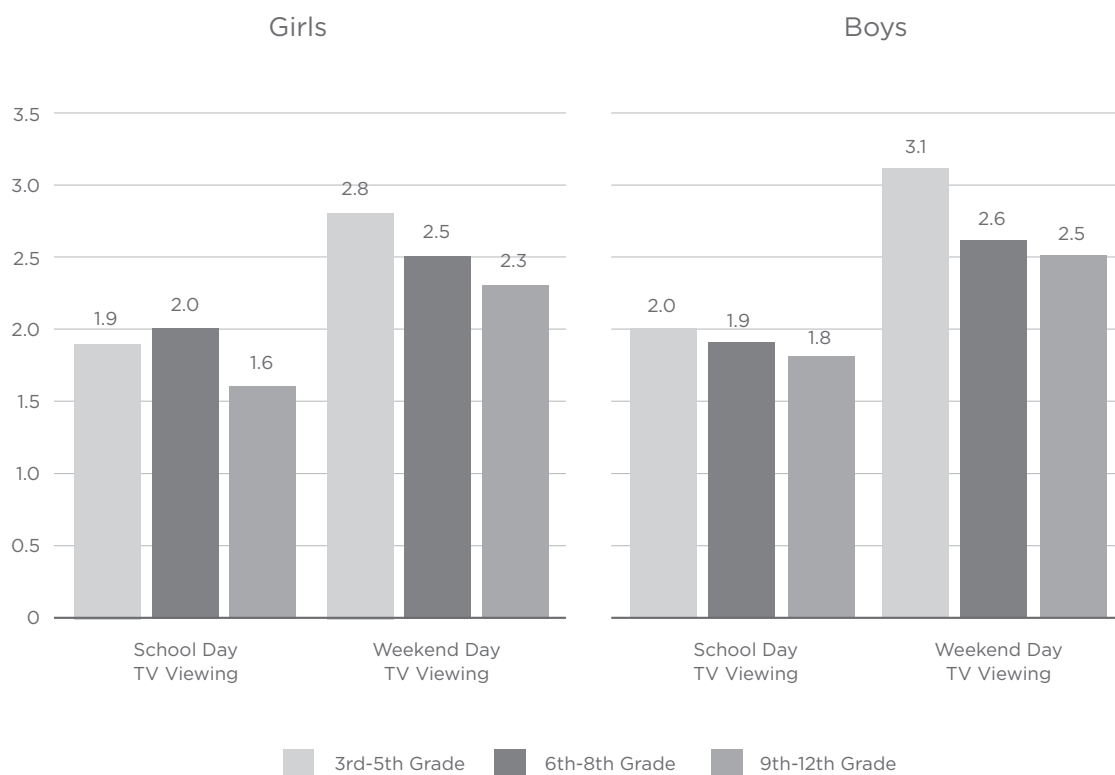


[Base: All Respondents:

Girls – 3rd-8th Grade (N = 610); 9th-12th Grade (N = 515);

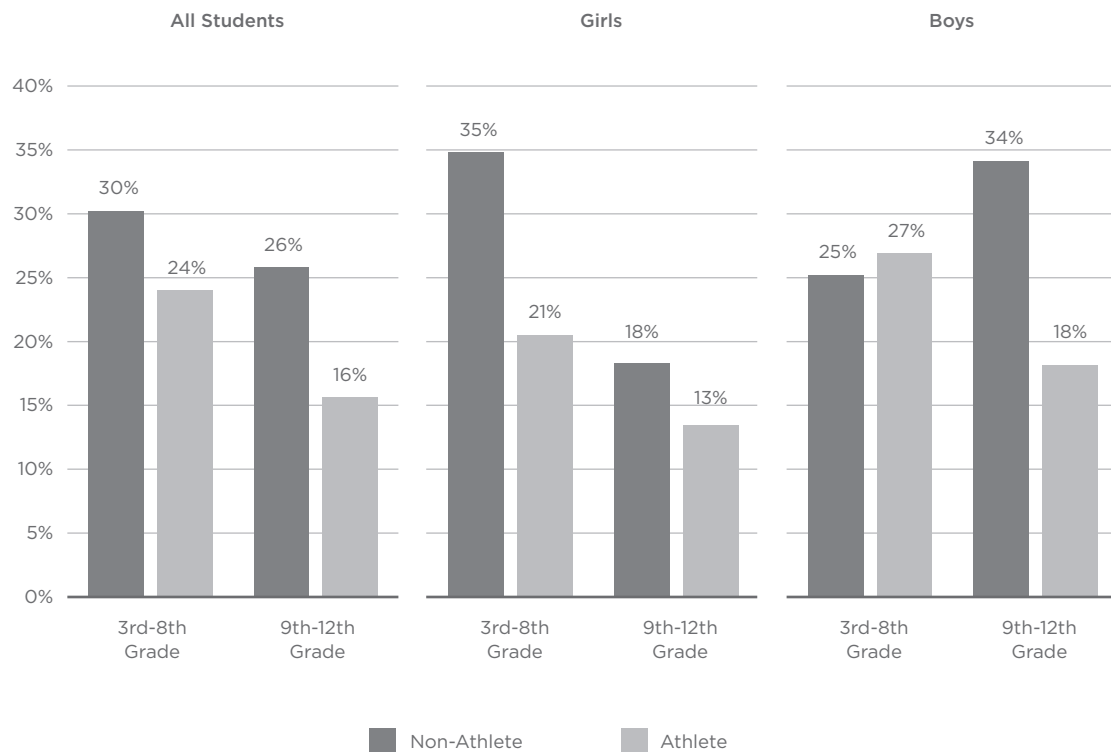
Boys – 3rd-8th Grade (N = 598); 9th-12th Grade (N = 447)]

Table V-18: Mean Number of Hours Watch TV Per Day,
School and Weekend Day Viewing



[Base: All Respondents: Girls - 3rd-5th Grade (N = 282); 6th-8th Grade (N = 328); 9th-12th Grade (N = 515); Boys - 3rd-5th Grade (N = 282); 6th-8th Grade (N = 316); 9th-12th Grade (N = 447)]

Table V-19: Percentage of Students Who Watch TV 21 Hours or More Per Week, by Gender and Grade Level



Chi-Square test comparing athletic participation and percent of students who indicated watching 21 or more hours of TV in a typical week, by gender and grade.

Total - 3rd-8th Grade: Chi-Square (1, 1329) = 5.147*, $p < .05$; 9th-12th Grade: Chi-Square (1, 839) = 12.593***, $p < .001$.

Girls - 3rd-8th Grade: Chi-Square (2, 640) = 14.414***, $p < .001$; 9th-12th Grade: Chi-Square (2, 419) = 1.802, $p = .179$.

Boys - 3rd-8th Grade: Chi-Square (2, 684) = .215, $p = .643$; 9th-12th Grade: Chi-Square (2, 414) = 12.804***, $p < .001$.

In summary, across the entire survey, only minimal evidence accrues showing that athletes watch more or less TV than non-athletes. And the findings that did emerge do not invite easy explanation.

Fast Food Consumption

Students were queried about how often they “eat at a fast food restaurant—like McDonald’s, Burger King or Subway?” No differences were found between the frequency that athletes and non-athletes eat at fast food restaurants.

Social Relationships

Having friends and being socially involved can enhance the social and psychological well-being of children. A basic premise of this study is that sports help to integrate children’s lives within the school community. Would athletes be more involved with extracurricular activities in their school and community? Do athletes report higher levels of popularity in school than their non-athletic counterparts?

Participation in Clubs and Groups

A recent study of Canadians found that young people who participate in organized sports are more likely to be involved in community activities as adults.³⁴ The argument is that sports help young people build confidence, relationships and social skills that then get expressed through school and community activities. Other studies link high school sports involvement and extracurricular activities.³⁵

The student survey shows that girls, particularly those in high school, were more likely to participate in clubs than boys. See Table V-20 on following page. Athletes were also more involved with clubs and groups than non-athletes, especially girls. See Table V-21 on page 93. More than three-quarters (77%) of highly involved female athletes participated in an extracurricular club or group.

Among the sixth- to eighth- and ninth- to 12th-grade girls, athletes reported significantly higher rates of participation in clubs and groups than non-athletes.

See Table V-22 on page 94. Among high school boys, athletic participation was not related to higher rates of extracurricular involvement only among the moderately involved athletes in the sixth to eighth grades. Indeed, boys’ overall involvement in clubs and groups was much lower than that of girls. During the middle school and through the high school years—whether they were moderately or highly involved with sports—female athletes were engaged with clubs and groups. High school male athletes, however, were not as able or willing to mix their sport interests with club involvement. More speculatively, it may be that many boys’ investments of energy and identity into being an athlete is narrower and more total than it is among girls. Put another way, it may be that female athletes have a wider array of interests outside of sport than male athletes.

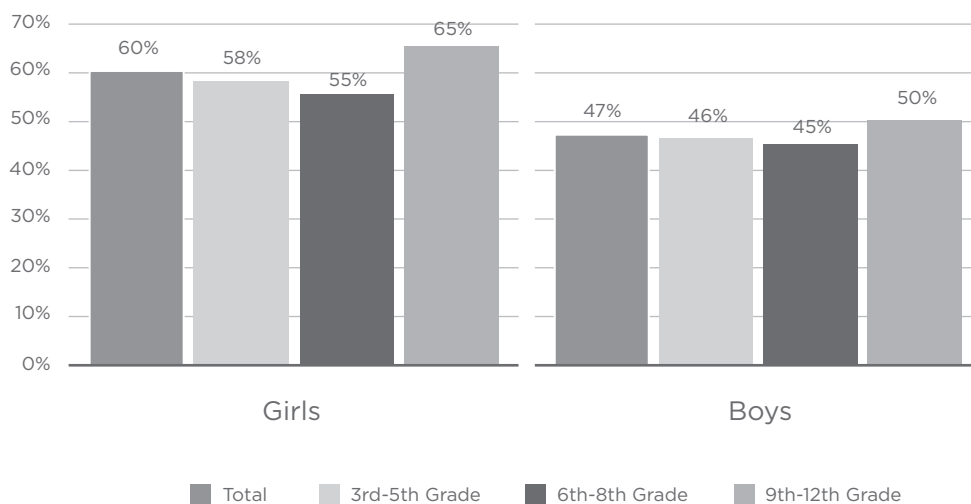
Participation in clubs and groups also varied with children’s history of involvement with sport. See Table V-23 on page 95. Girls who reported currently playing on a team or organized sport were more likely to be involved with clubs or groups than other girls or boys.

Popularity at School

The student survey shows that girls and boys reported being popular at school at similar rates. A majority of children said they are “very popular” or “somewhat popular” at school. See Tables V-24 and V-25 (on pages 96 and 97, respectively). This study finds that popularity was associated with athletic participation for both female and male athletes. See Table V-26 on page 98.

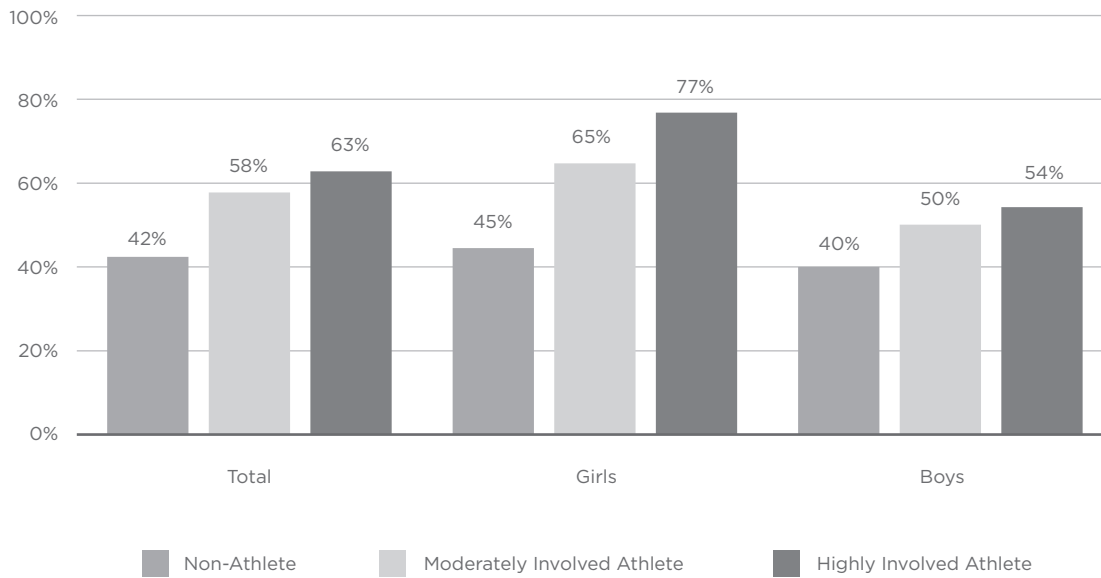
Two patterns emerged with greater scrutiny of the results. See Table V-27 on page 99. First, the popularity gains associated with sport involvement were particularly evident among third- to fifth- and sixth- to eighth-graders. This suggests that the social benefits of sport begin in elementary school. Second, whereas only 11% of the highly involved ninth- to 12th-grade girls considered themselves “very popular,” 84% labeled themselves “somewhat popular” (compared with 65% of similar boys). This could mean that the popularity of high school female

Table V-20: Percentage of Students Who Participate in Clubs or Groups, in or Outside School (Excluding Sports Teams), by Gender and Age



[Base: All Respondents: Girls – 3rd-5th Grade (N = 282); 6th-8th Grade (N = 328); 9th-12th Grade (N = 515); Boys – 3rd-5th Grade (N = 282); 6th-8th Grade (N = 316); 9th-12th Grade (N = 447)]

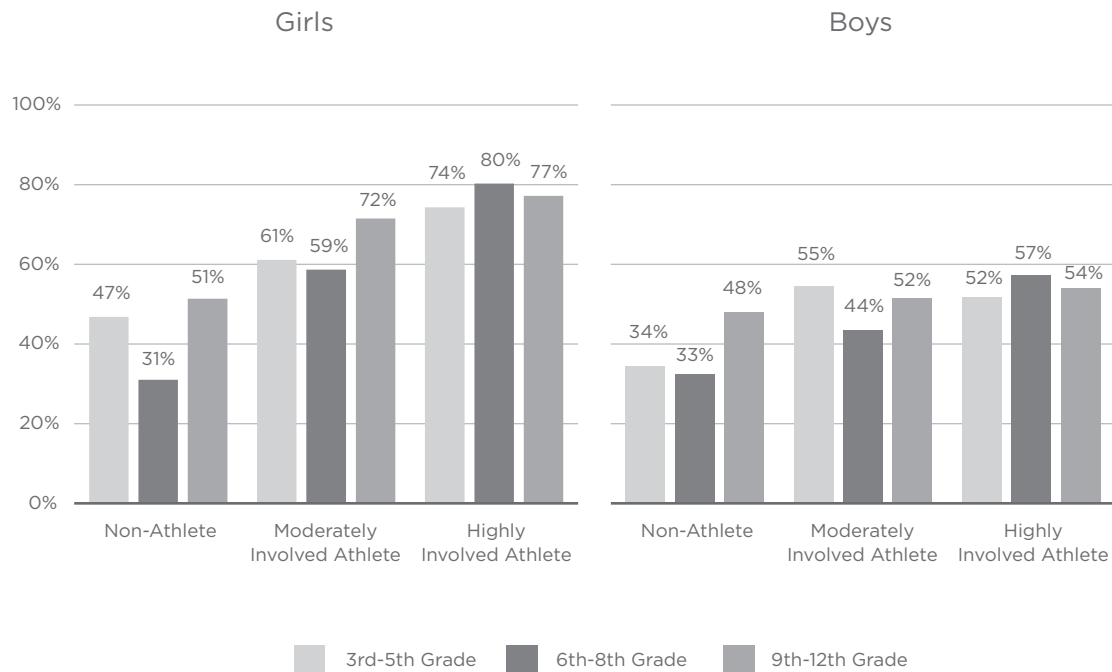
Table V-21: Percentage of Students Who Participate in Clubs or Groups,
by Gender and Athletic Involvement



Chi-Square test comparing athletic participation and percent of students who indicating being involved in clubs or groups, by gender.

Total: Chi-Square (2, 2131) = 53.98***, $p < .001$; Girls: Chi-Square (2, 1067) = 60.224***, $p < .001$;
Boys: Chi-Square (2, 1052) = 12.658***, $P < .001$.

Table V-22: Percentage of Students Who Participate in Clubs and Groups, by Gender, Grade Level and Athletic Involvement

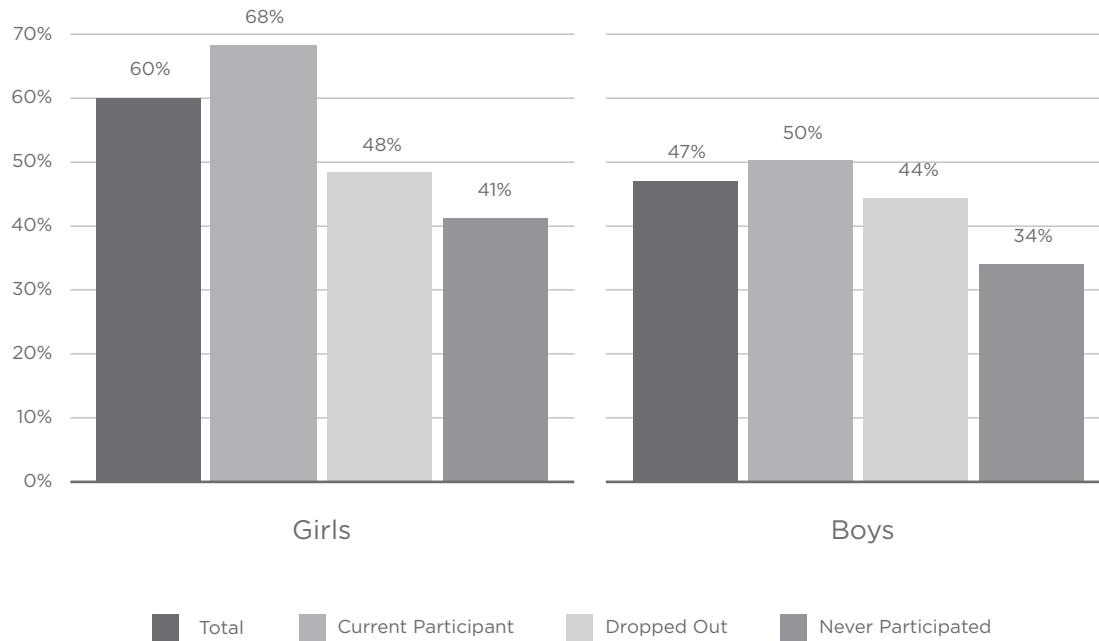


Chi-Square test comparing athletic involvement and percentages of students who indicated participating in groups or clubs, by gender and grade.

Girls – 3rd-5th Grade: Chi-Square (2, 321) = 12.830**, $p < .01$; 6th-8th Grade: Chi-Square (2, 310) = 38.862**, $p < .001$; 9th-12th Grade: Chi-Square (2, 420) = 19.433**, $p < .001$.

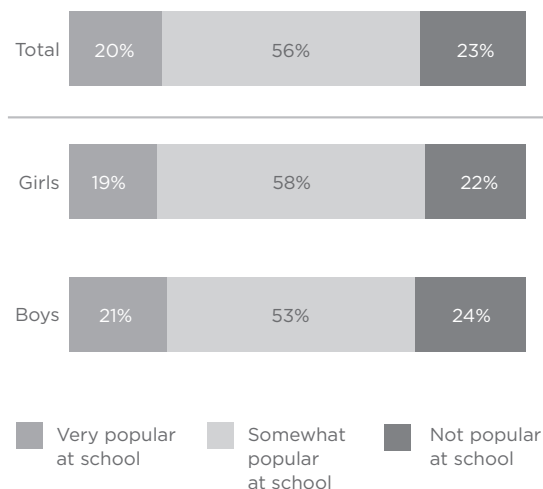
Boys – 3rd-5th Grade: Chi-Square (2, 325) = 8.164*, $p < .05$; 6th-8th Grade: Chi-Square (2, 337) = 12.387**, $p < .01$; 9th-12th Grade: Chi-Square (2, 406) = .782, $p = .676$.

Table V-23: Percentage of Students Who Participate in Clubs or Groups, in or Outside School (Excluding Sports Teams), by Gender and Sport Participation



[Base: All Respondents: Girls - Current Participant (N = 781); Dropped Out (N = 150); Never Participated (N = 179); Boys - Current Participant (N = 772); Dropped Out (N = 124); Never Participated (N = 133)]

Table V-24: Self-Reported Popularity at School, by Gender



[Base: All Respondents – Total (N = 2185); Girls (N = 1125); Boys (N = 1045); African-American (N = 387); Caucasian (N = 1146); Hispanic (N = 380); Current (N = 1564); Drop Out (N = 276); Never (N = 312); 3+ Teams (N = 536); 1-2 Teams (N = 1028); Excellent health (N = 601); Very good or less (N = 1564)]

athletes may be based in a wider array of activities and relationships that includes sports. It could also mean that some highly involved female athletes still have to cope with negative comments about being “too” involved with sports.

Gender, Sport and the Popularity Hierarchy

Students were asked to identify the “one sure thing that would make a girl popular” in their grade at school. See Tables V-28 and V-29 on page 100. About half of both girls and boys rated “being good looking” as key to girls’ popularity. Few students considered “being good at sports” as a big plus for girls’ popularity. In contrast, 18% of girls and 30% of boys indicated that “being good at sports” was certain to make a boy popular. In summary, for girls it

is appearance rather than athletic ability that shapes popularity. For boys, girls said that good looks trump being the able athlete, whereas boys emphasized sports as a plus.

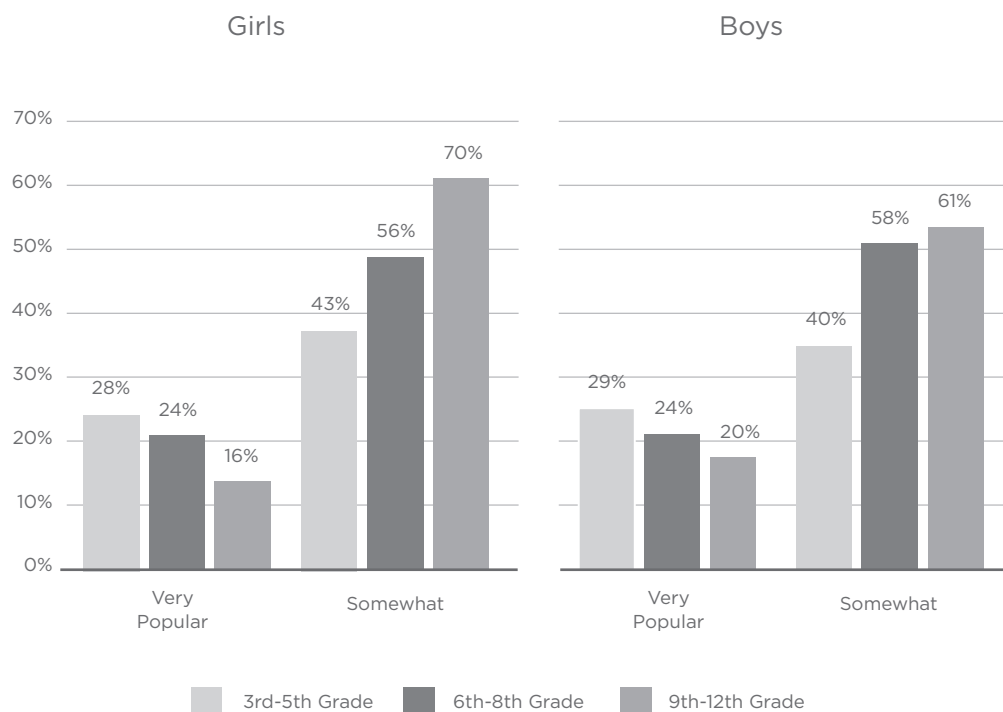
These findings suggest that gender stereotypes operate within elementary and middle-school cultures. The same cultural story that is told so often and so slickly by mass media appears to hold sway among contemporary youth; i.e., girls must look good to be popular, and boys can be popular if they play sports. A recent study also showed that middle-school girls often recognize that “one of the best things about being a boy” is the accolades they receive for playing sports. The girls also indicated that boys “received greater funding and more attention” (p. 242) for their athletic exploits.³⁶

Quality of Life

Do girls and boys who play sports have a high quality of life? The concept “quality of life” refers to how personally content young people are with school, family and friends. Quality of life (QOL) was measured by responses to six statements that tap whether students feel positive about themselves and have positive relationships with friends and family.³⁷ See Table V-30 on page 101.

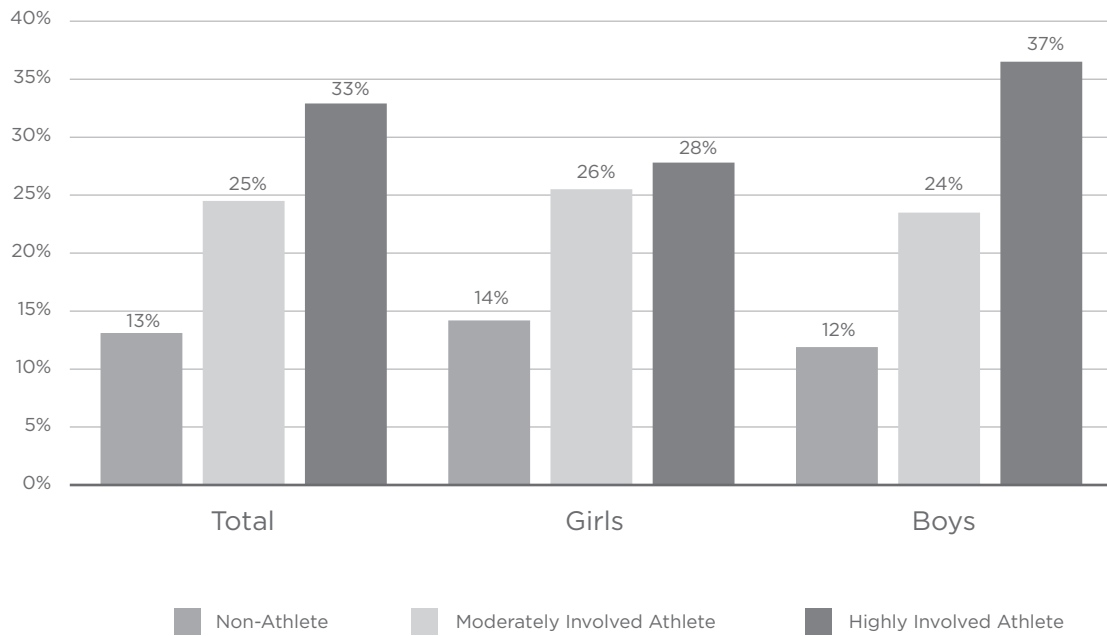
Overall, four in five youth indicated being generally satisfied with their lives. Younger students, those with physically active or more educated parents—all attributes of current team sports players—were more likely than others to report being content. See Tables V-31 and V-32 on pages 102 and 103, respectively. Contentedness was lowest among students who dropped out of an organized or team sport. Girls who did not participate in a team sport were significantly more likely to have low QOL scores than girls involved in team sports. See Table V-33 on page 104. Among boys, the same did not hold. And finally, Figure V-34 (on page 105) presents an array of factors that were generally associated with higher QOL scores. Students registering higher QOL were more physically and socially active, had greater social support and spent less time on TV than those with low scores.

Table V-25: Popularity at School, by Gender and Grade Level



[Base: All Respondents: Girls – 3rd-5th Grade (N = 282); 6th-8th Grade (N = 328); 9th-12th Grade (N = 515); Boys – 3rd-5th Grade (N = 282); 6th-8th Grade (N = 316); 9th-12th Grade (N=447)]

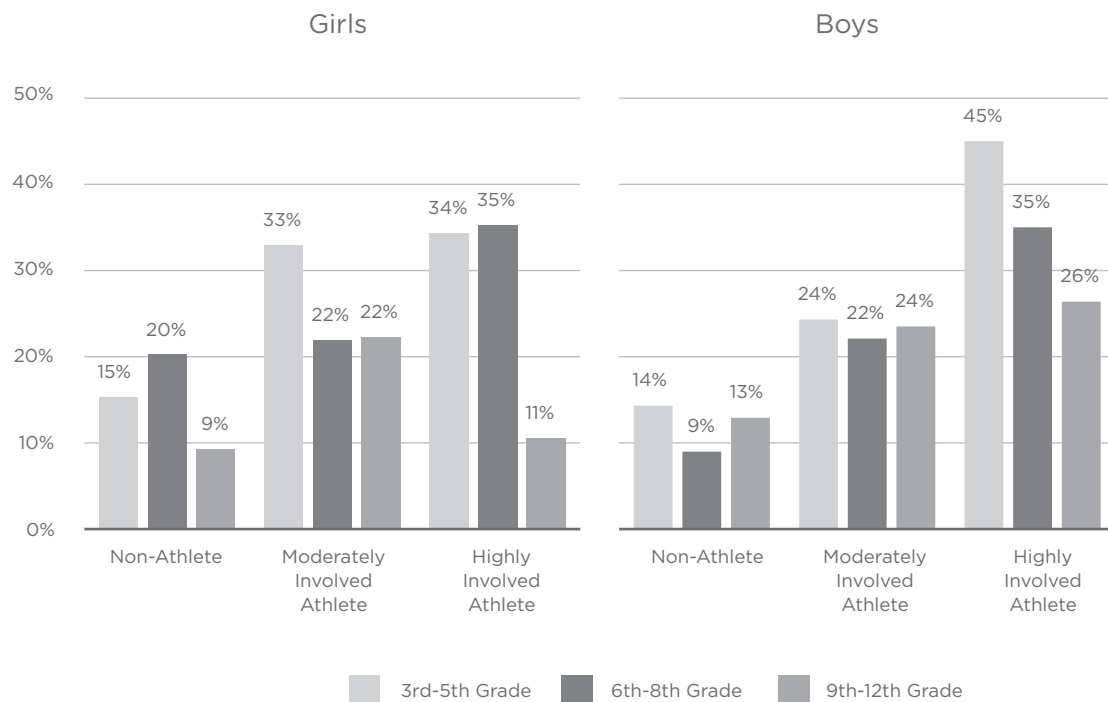
Table V-26: Athletic Involvement and Being Very Popular at School, by Gender



Chi-Square test comparing athletic participation and percent of students who indicating being very popular at school, by gender.

Total: Chi-Square (2, 2147) = 62.927***, $p < .001$; Girls: Chi-Square (2, 1085) = 18.577***, $p < .001$; Boys: Chi-Square (2, 1050) = 18.577***, $P < .001$.

Table V-27: Athletic Involvement and Being Very Popular at School, by Gender



Chi-Square test comparing athletic involvement and percentages of students who indicated excellent health, by gender and grade.

Girls - 3rd-5th Grade: Chi-Square (2, 327) = 11.407**, $p < .001$; 6th-8th Grade: Chi-Square (2, 309) = 5.663, $p = .059$; 9th-12th Grade: Chi-Square (2, 414) = 12.192**, $p < .01$.

Boys - 3rd-5th Grade: Chi-Square (2, 334) = 23.453***, $p < .001$; 6th-8th Grade: Chi-Square (2, 340) = 18.059***, $p < .05$; 9th-12th Grade: Chi-Square (2, 411) = 7.222*, $p < .05$.

Table V-28: Top Items That Make A **Girl** Popular In School

Girls		Boys	
Being good looking	44%	Being good looking	57%
Having cool clothes/things	13%	Having cool clothes/things	9%
Being helpful and nice to others	9%	Being helpful and nice to others	8%
Being very smart/getting good grades	7%	Being very smart/getting good grades	6%
Being very good at sports	4%	Being very good at sports	3%
Having a lot of money	3%	Having a lot of money	3%

* Even among girls who are heavily involved in team and organized sports (play on three or more teams), athletic ability is secondary. Only 10% of these girls rated “being very good at sports” most important. Nearly half (48%) chose “being good looking.”

[Base: All Respondents: Girls (N = 1125); Boys (N = 1045); Girls who play on 3+ teams (N = 218)]

Table V-29: Top Items That Make A **Boy** Popular In School

Girls		Boys	
Being good looking	38%	Being very good at sports	30%
Being very good at sports	18%	Being very good looking	15%
Having cool clothes/things	11%	Having cool clothes/things	13%
Being helpful and nice to others	9%	Being helpful and nice to others	11%
Being very smart/getting good grades	8%	Being very smart/getting good grades	9%
Having a lot of money	3%	Having a lot of money	6%

[Base: All Respondents: Girls (N = 1125); Boys (N = 1045)]

Table V-30: Measuring Quality of Life

“Quality of Life” score measures personal contentedness or social adjustment.

Students rate six self-descriptive statements about their relationships and general happiness.

Quality of Life Score

These scores were computed by summing ratings from the six statements listed here. Respondents were grouped based on aggregate scores:

- “Low score”: 15 or below
- “Medium score”: 16-21
- “High score”: 22 and above.
- have a lot of friends.
- I get along well with my parents.
- I am often bored. (Reversed scale)
- I often feel sad and unhappy. (Reversed scale)
- I have been happy at school this year.
- I get into trouble a lot. (Reversed scale)

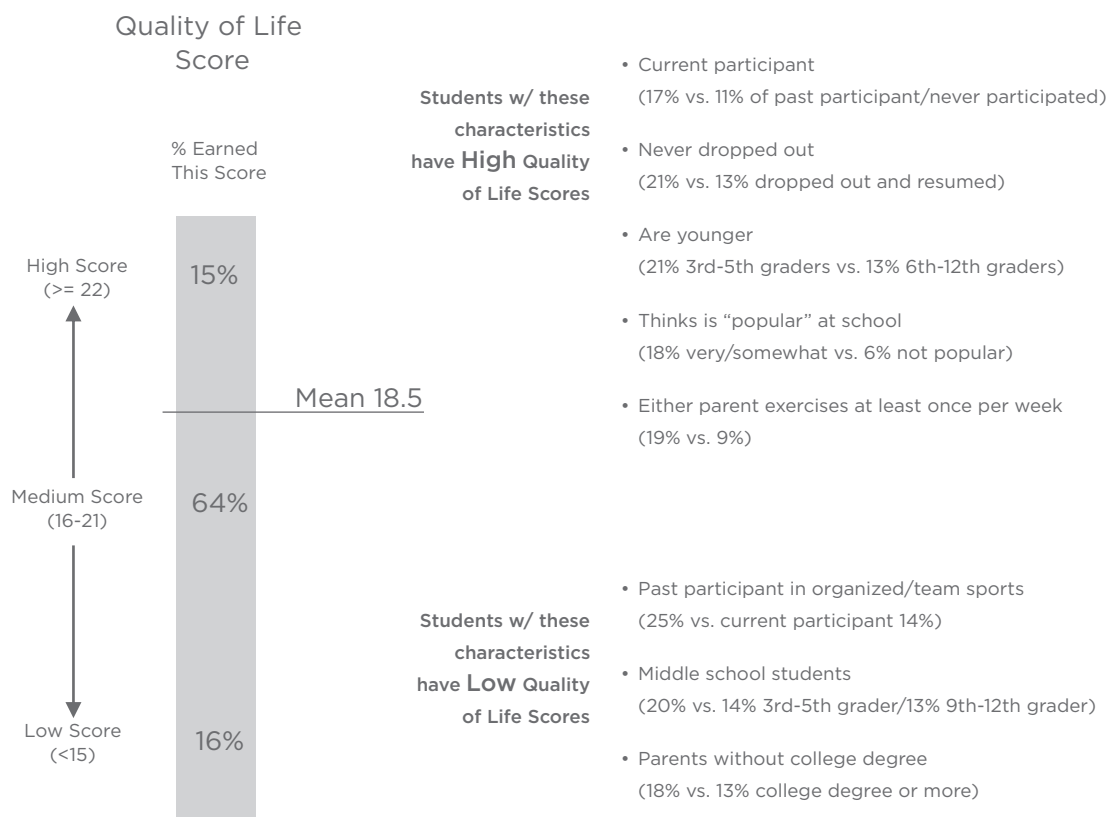
Athletic Involvement, Quality of Life and Grade Level

Several significant relationships between athletic involvement and QOL were verified. First, across the entire sample, greater degrees of athletic participation were related to higher QOL. See Table V-35 on page 106. Second, the same positive association held for girls in sixth to eighth and ninth to 12th grades and their male counterparts. See Table V-36 on page 107. Third, the sixth- to 12th-grade girls who played sports were less apt to report low QOL scores than their non-athletic peers. The same was true among boys. See Table V-37 on page 108. Among the girls, for example, 28% of the sixth- to eighth-grade non-

athletes had low QOL, compared to 21% of moderately involved athletes and only 10% of highly involved athletes. The statistical differences for boys were not as marked, but they attained significance.

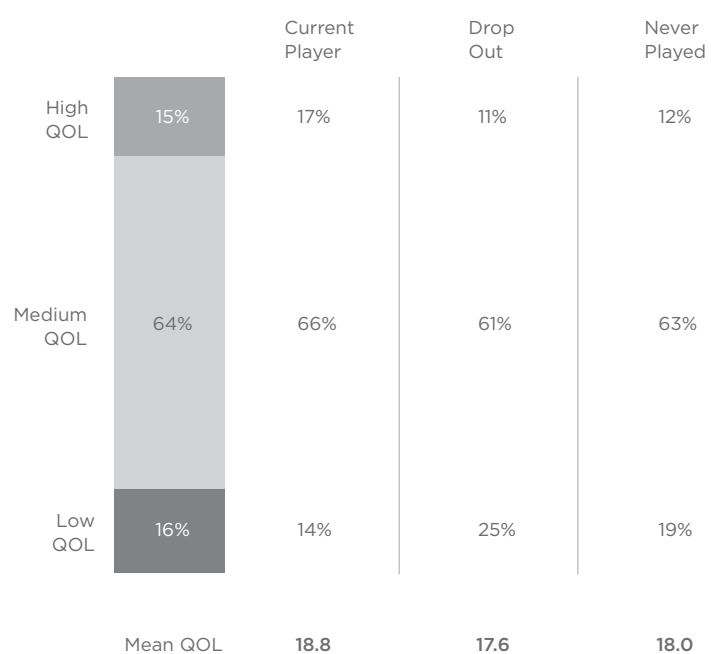
Finally, the findings revealed an overall pattern of associations between athletic participation and children’s quality of life across grade levels. Among the third- to fifth-grade girls and boys, the percentages of athletes and non-athletes who reported high (and/or low) quality of life were not significantly different. Among the sixth- to eighth-grade and ninth- to 12th-grade girls and boys, greater athletic participation was significantly related to higher quality of life.³⁸

Table V-31: Quality of Life Score



[Base: Total Respondents (N = 2185); Current Participant (N = 1564); Not Current Participant (N = 588); Never Dropped Out (N = 846); Dropped Out and Resumed (N = 710); 3rd-5th Grade (N = 568); 6th-12th Grade (N = 1617); 6th-8th Grade (N = 648); 9th-12th Grade (N = 969); Very/Somewhat Popular (N = 1765); Not Popular (N = 379); Parent Exercises at Least Once per Week (N = 1367); Few Times per Month or Less (N = 776); Parent Educ.: HS or Less/Some College (N = 841); College or More (N = 951)]

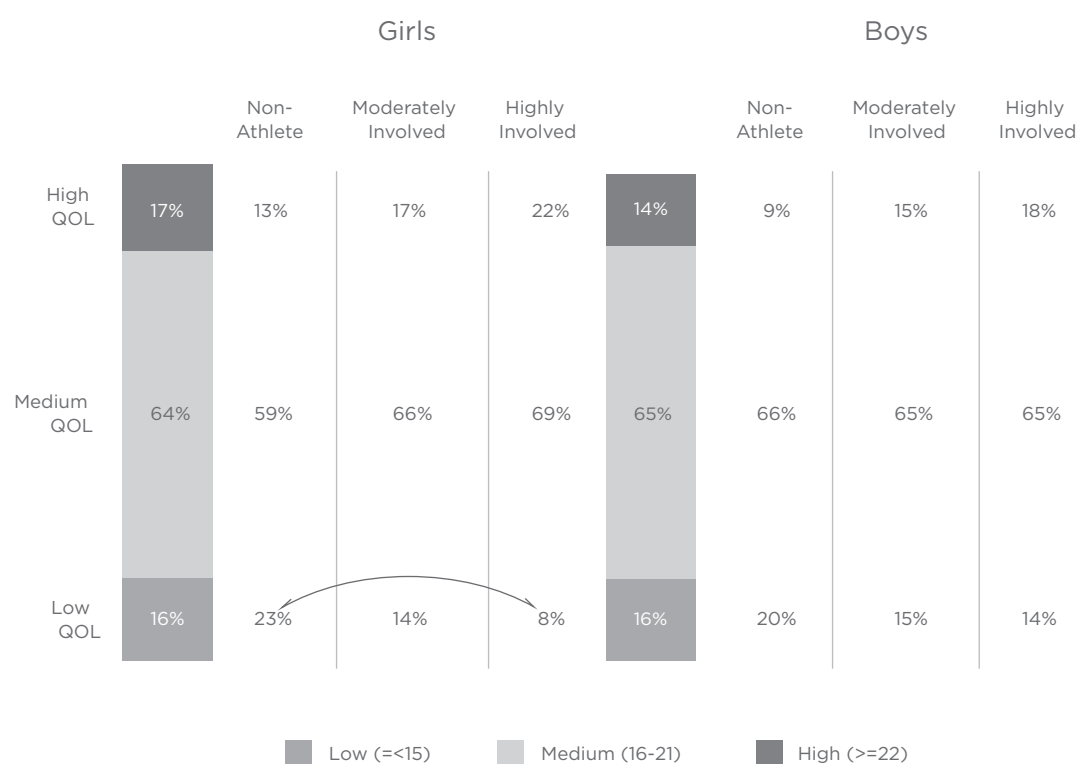
Table V-32: Quality of Life Score, by Sport History



Low (≤ 15)
 Medium (16-21)
 High (≥ 22)

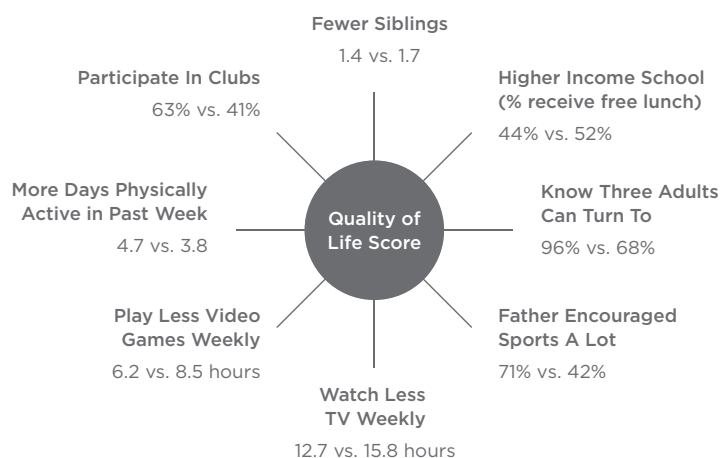
[Base: Total Respondents (N = 2185); Current Player (N = 1564);
 Drop Out (n = 276); Never Played (n = 312)]

Table V-33: Quality of Life Score By Gender and Athletic Involvement



[Base: Girls - Total (N = 1125); Non-Athlete (N = 329); Moderately Involved (n = 563); Highly Involved (n = 218); Boys - Total (N = 1045); Non-Athlete (N = 257); Moderately Involved (n = 458); Highly Involved (n = 314)]

Table V-34: Factors Associated with Higher Quality of Life



*** Example: Read 63% vs. 41% as:**

63% of High QOL scorers vs. 41% of Low QOL scorers

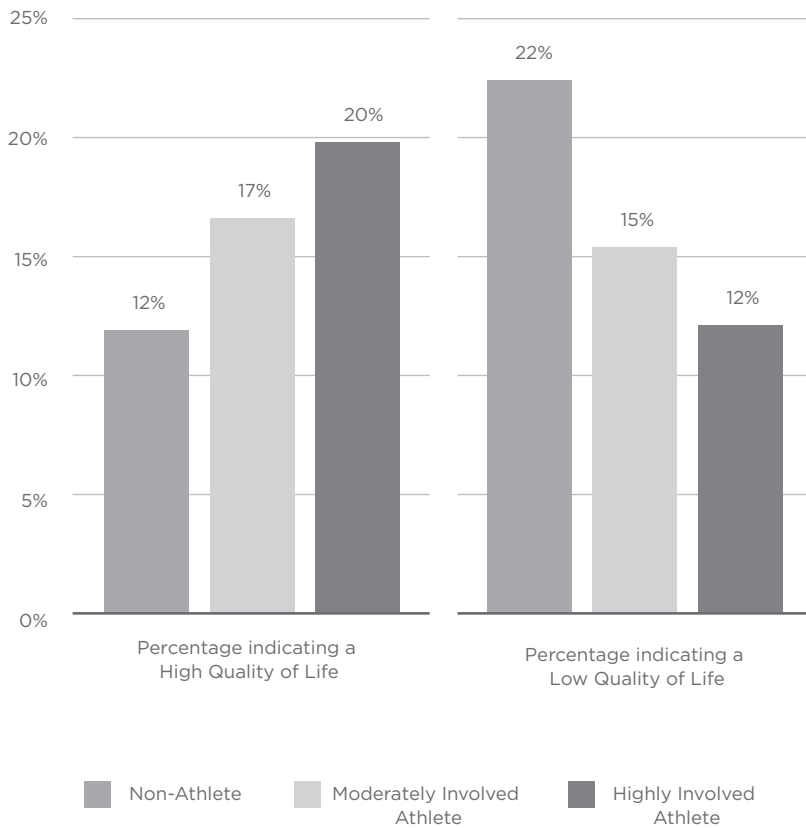
[Base: All Respondents – High Quality of Life Score (N = 341); Low Quality of Life Score (N = 328)]

The relationships between athletic involvement and average scores on QOL are plotted across grade levels in Figure V-38 on page 109. QOL scores arched upward in a linear fashion as athletic involvement increased with one exception—male high school students who played on three or more sports per year. More research is needed to understand why highly involved male athletes reported lower QOL. Expectations linked to success and competitive achievement in the male sports culture may be stressful. Overinvestment in the athlete role might also be a factor; i.e., highly involved male athletes were involved with fewer clubs and organizations than their female counterparts.

This wider pattern of evidence suggests that the favorable links between sport involvement and QOL may unfold across the spectrum of children's long-term development. First, substantial numbers of

both athletes and non-athletes in third to fifth grades reported high levels of QOL. Second, athletes in the sixth to eighth grades had statistically higher levels of QOL than their non-athletic counterparts. So it may be that it takes time for some of the developmental synergies fostered by athletic participation in earlier grades to take hold. And finally, while quality of life among high school students generally tends to decline as children get older (perhaps complicated by the social and emotional throes of adolescence), part of this drop appears to be counteracted by athletic participation. Put another way, it could be that some of the gains in QOL established through athletic participation during the middle school years stay with young people as they move into early and late adolescence. (The one notable exception is highly involved male high school athletes; only 9% reported high QOL, compared with 18% of highly involved female athletes.) More research is needed to untangle

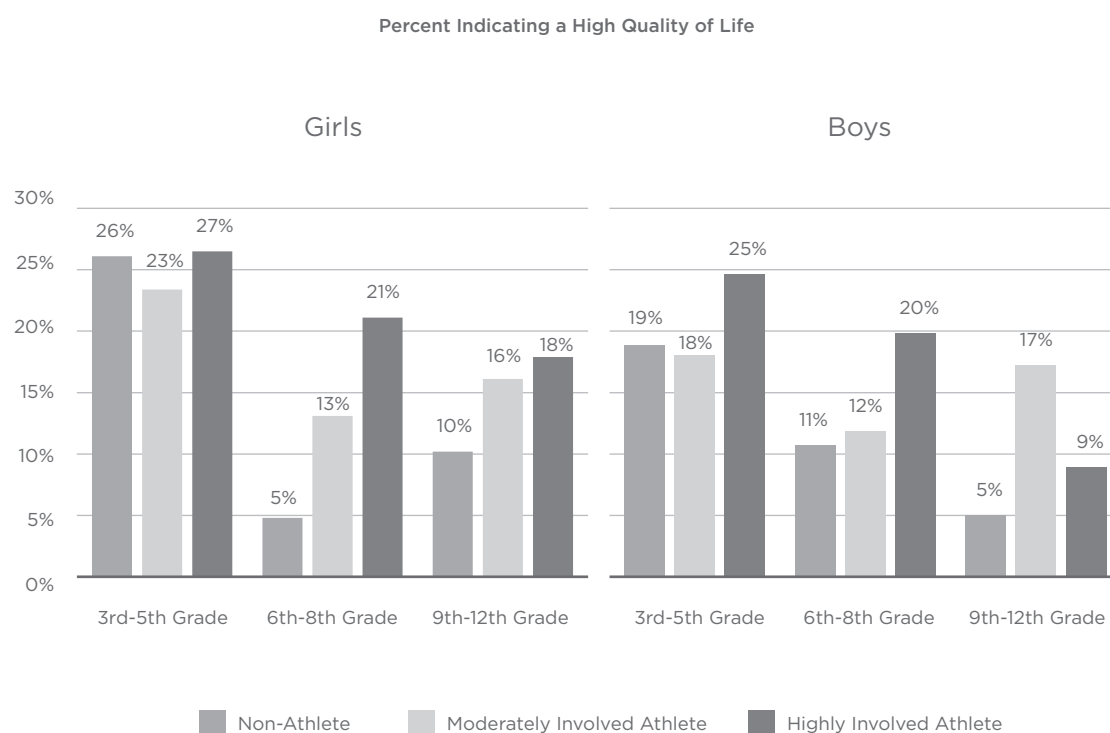
Table V-35: Athletic Involvement and Quality of Life



Chi-Square test comparing athletic involvement and quality of life scores.

Chi-Square (2, 2082) = 30.073***, $p < .001$.

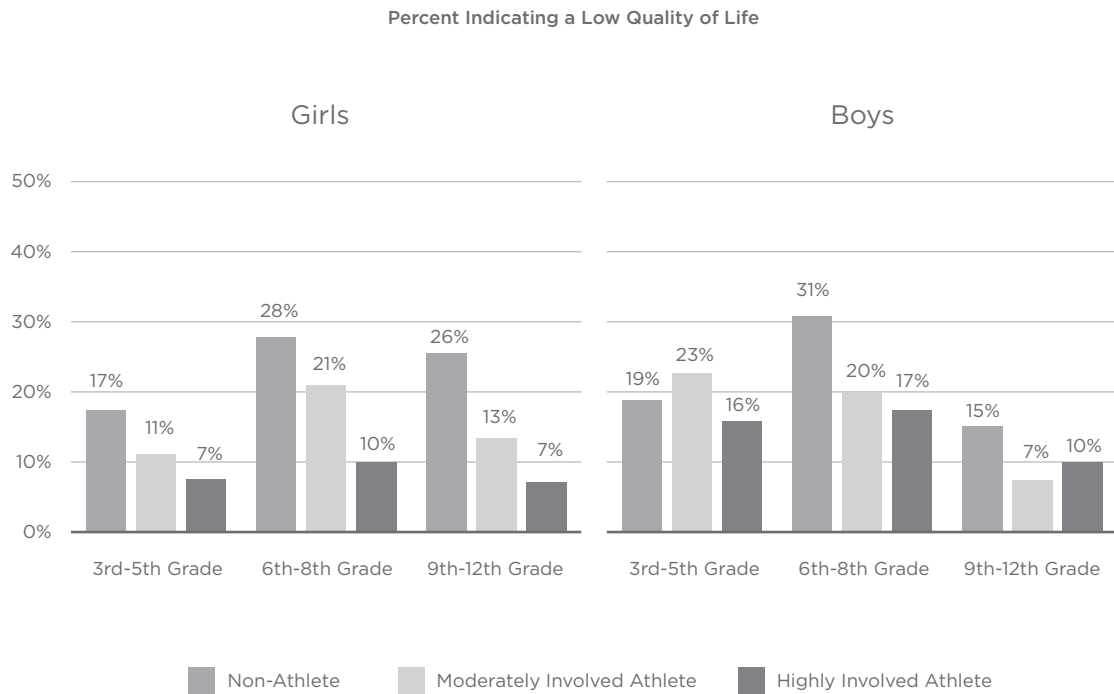
Table V-36: Athletic Involvement and High Quality of Life, by Gender and Grade Level



Chi-Square test comparing athletic involvement and percentages of students who indicated excellent health, by gender and grade.

Girls - 3rd-5th Grade: Chi-Square (2, 313) = .312, $p = .885$; 6th-8th Grade: Chi-Square (2, 305) = 9.298*, $p = .010$; 9th-12th Grade: Chi-Square (2, 410) = 3.014, $p = .222$.
 Boys - 3rd-5th Grade: Chi-Square (2, 311) = 1.760, $p = .415$; 6th-8th Grade: Chi-Square (2, 333) = 4.587, $p = .101$; 9th-12th Grade: Chi-Square (2, 402) = 11.506**, $p < .01$.

Table V-37: Athletic Involvement and Low Quality of Life, by Gender and Grade Level

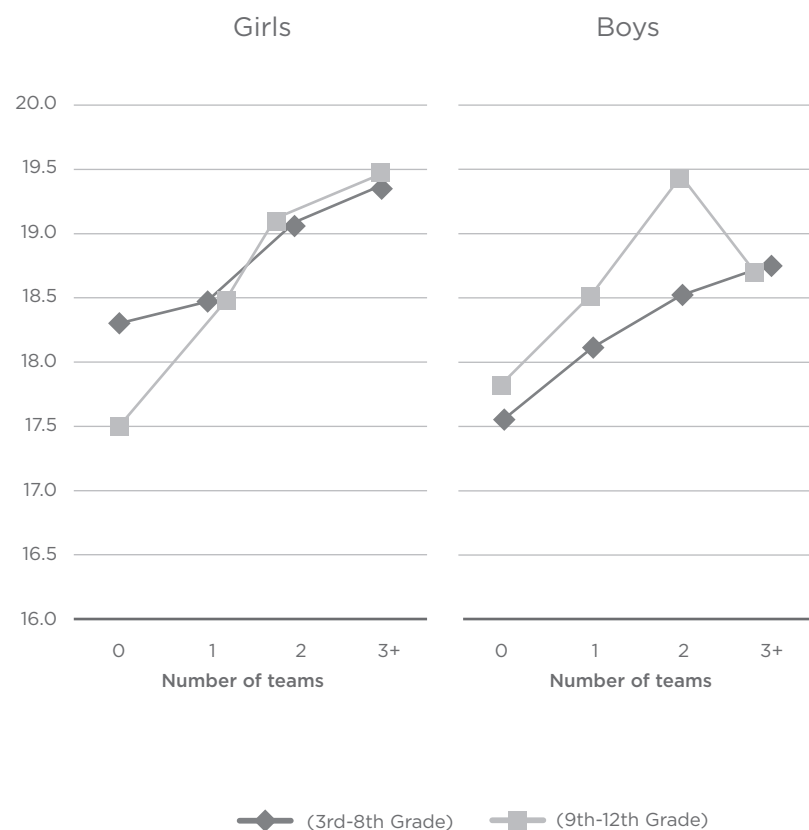


Chi-Square test comparing athletic involvement and percentages of students who indicated excellent health, by gender and grade.

Girls – 3rd–5th Grade: Chi-Square (2, 310) = 4.123, $p = .127$; 6th–8th Grade: Chi-Square (2, 307) = 7.664*, $p = .010$; 9th–12th Grade: Chi-Square (2, 408) = 12.907***, $p < .01$.

Boys – 3rd–5th Grade: Chi-Square (2, 310) = 1.738, $p = .419$; 6th–8th Grade: Chi-Square (2, 331) = 5.154, $p = .076$; 9th–12th Grade: Chi-Square (2, 401) = 4.730, $p = .094$.

Figure V-38: Athletic Involvement and Average Quality of Life Scores, by Gender and Grade Level



Bivariate regression analyzing athletic involvement and quality of life, by gender and grade.

Girls - 3rd-8th Grade: (n = 446), $r = .126^{**}$, $p < .01$; 9th-12th Grade: (n = 272), $r = .143^{*}$, $p < .05$.
 Boys - 3rd-8th Grade: (n = 502), $r = .087^{*}$, $p = .05$; 9th-12th Grade: (n = 281), $r = .034$, $p = .570$.

if and how the personal and social assets fostered by athletic participation flow across childhood and adolescence.

School Location and Family Type

When girls' and boys' average QOL scores were plotted in relation to athletic involvement across school locations, the overall results were positive. See Table V-39 on following page. There was a dip downward in average QOL scores, however, among both highly involved female and male athletes from rural schools.

Finally, in Section III of this report, findings showed that higher levels of children's involvement with sports were associated with greater family satisfaction. Moreover, this positive synergy held for daughters in both dual-parent and single-parent families. A similar relationship is illustrated in Figure V-40 (on page 112). Daughters involved with three or more sports from single-parent families reported the highest average QOL score. This is another indication that something special is happening for highly active female athletes in single-parent families.

Academic Achievement

Previous studies show that student-athletes do well academically during the high school years.³⁹ Athletes not only have higher grades than non-athletes, but also study longer and are more apt to be enrolled in a university two years after high school.⁴⁰ The findings below explore whether athletic participation is an educational resource for students across the elementary, middle-school and high school years.

Among all U.S. third- to 12th-grade students, more athletes than non-athletes enjoyed greater levels of high academic achievement.⁴¹ Highly involved athletes of both sexes reported receiving "mostly A's" on their report cards. See Table V-41 on page 113. Moderately involved female athletes did just as well as their highly involved peers in the "A-grade" department. Among the boys, however, only those playing three or more sports reported mostly A's on their report cards.

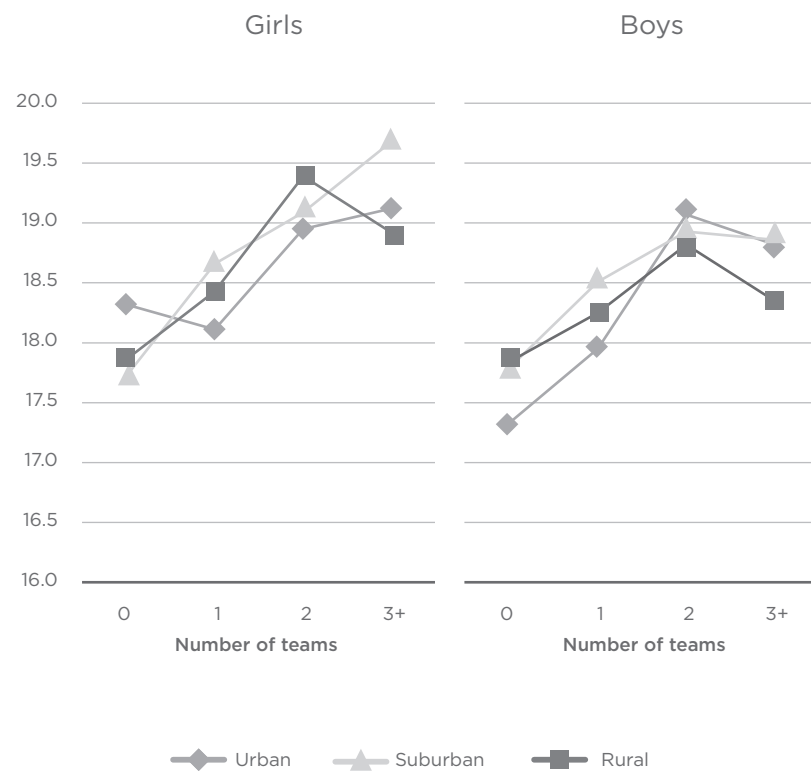
When the "sport and classroom" connections are broken down by grade levels, the picture becomes more complex, but some key findings emerged. See Table V-42 on page 114. Moderately involved female athletes outpaced their non-athletic peers at every grade level. Moderately involved male athletes showed no such surge in academic excellence. Highly involved athletes of both sexes, in contrast, generated significantly more A-grades than non-athletes at every grade level except among third- to fifth-grade boys.

The positive links between athletic participation and academic performance often persisted across school locations—especially for girls. See Tables V-43 and V-44 on pages 115 and 116, respectively. Female athletes (both moderately and highly involved) outpaced their non-athletic peers in every grade level and school location except in rural high schools.

The findings for boys were mixed. Moderately involved male athletes in the third to eighth grades did better in the classroom than non-athletes in urban and rural schools but not suburban schools. Highly involved male athletes excelled in "A-grade" production in all school locations. In rural high schools, however, moderately involved athletes in the high school reported fewer "A's" than their non-athletic peers.

Finally, economic disparities were linked with the academic performance of athletes. A comparison of the data in Tables V-45 and V-46 (on pages 117 and 118, respectively) suggests that the most consistent academic gains associated with athletic participation were made by girls who live in higher-income communities. The third- to eighth-grade female athletes in the lower income bracket (\$50,000 or less median family income) also reported more A's than their non-athletic peers. Among the males in this lower-income group, only the highly involved athletes showed academic gains.

Figure V-39: Athletic involvement and Average Quality of Life Scores, by Gender and School location



Bivariate regression analyzing athletic involvement and quality of life, by gender and type of community.

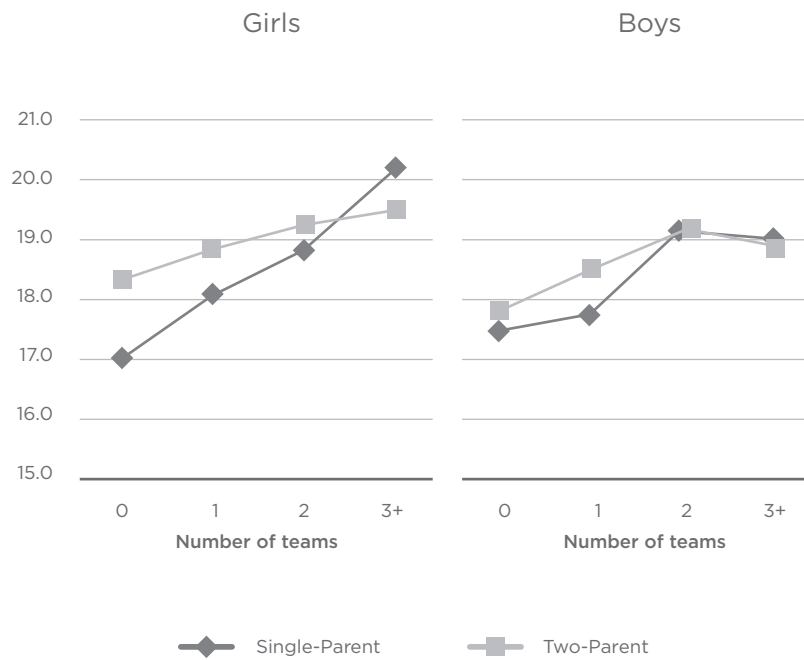
Girls - Urban: (n = 184), $r = .131$, $p = .077$; Suburban: (n = 388), $r = .153^{**}$, $p < .01$;

Rural: (n = 145), $r = .079$, $p = .345$.

Boys - Urban: (n = 230), $r = .120$, $p = .069$; Suburban: (n = 376), $r = .054$, $p = .300$;

Rural: (n = 176), $r = .006$, $p = .933$.

Figure V-40: Athletic Involvement and Average
Quality of Life Scores, by Gender and Family Type

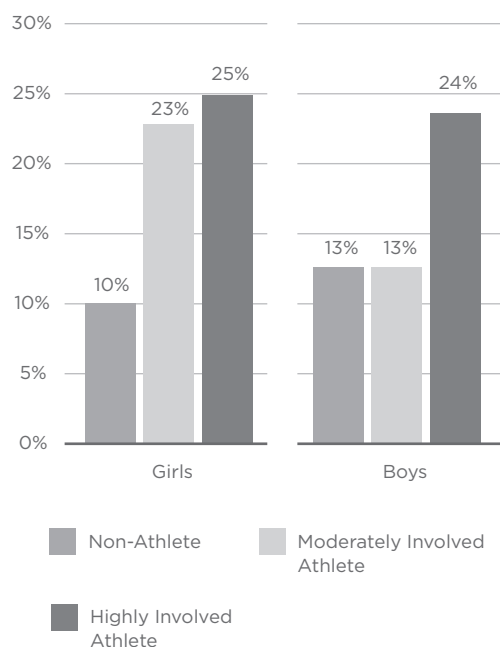


Bivariate regression analyzing athletic involvement and quality of life, by gender and family structure.

Girls – Two-Parent: (n = 509), $r = .090^*$, $p < .05$; Single-Parent: (n = 129), $r = .284^{***}$, $p = .001$.
Boys – Two-Parent: (n = 526), $r = .053$, $p = .290$; Single-Parent: (n = 138), $r = .149$, $p = .081$.

Table V-41: Athletic Involvement and Academic Achievement, by Gender

Percent Indicating They Receive Mostly A's



Chi-Square test comparing athletic participation and percent of students who indicating receiving mostly A's in school, by gender.

Girls: Chi-Square (2, 1040) = 25.434***, $p < .001$.

Boys: Chi-Square (2, 1084) = 19.705***, $P < .001$.

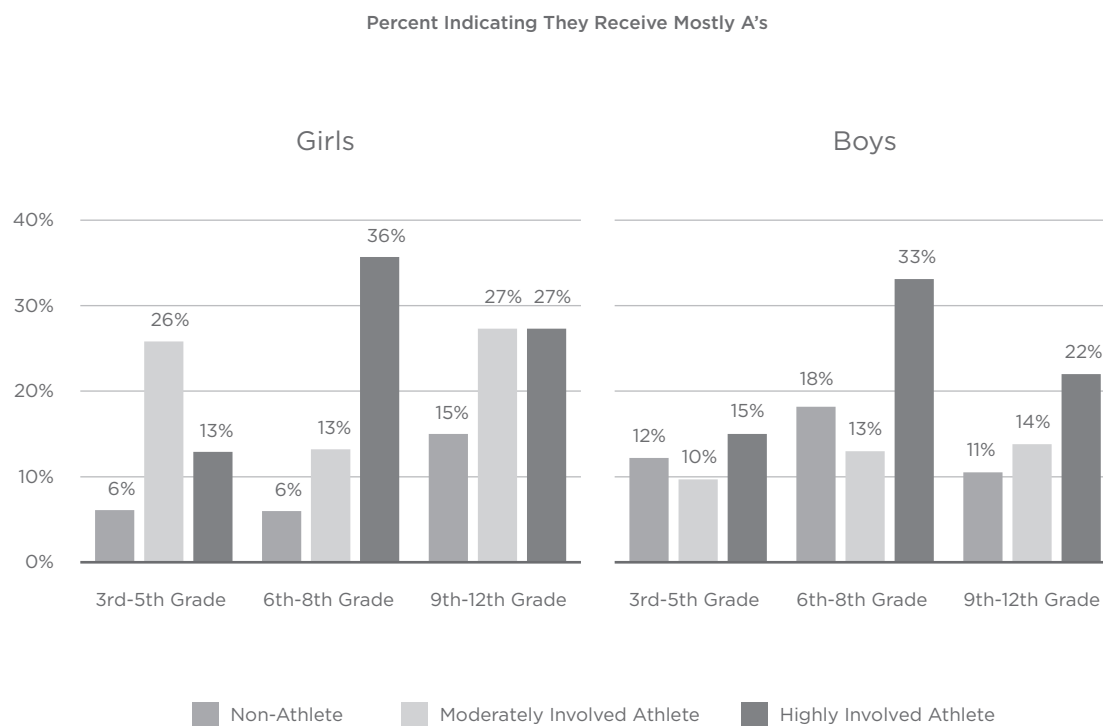
Overall the findings support the conclusion that sports are an educational asset for many U.S. girls and boys. Educators know that a host of personal and social factors shape children's academic performance. Sport is definitely one of them, and the extent that it puts wind in the academic sails of youth varies by grade level, family income and school location.

Conclusion

The findings above strongly suggest that sports help shape the physical and emotional health of U.S. children. Athletic participation is part of the solution to national public health concerns about overweight among children. Sports help children not only develop healthy bodies but healthy body images, the latter a basic indicator of mental health. The synergies between sports participation and physical and mental health, moreover, are present among children as early as the middle-school years. And athletes—especially female athletes—report high levels of social engagement, popularity and academic achievement, each a central ingredient in healthful youth development. Both female and male athletes are also content with their lives, achieving a quality of life that parents hope to see in their children.

This study examines the interfaces of sport with youth development from childhood through adolescence. Many results confirm that the contributions of sport in children's lives begin long before the high school years (where most of the previous research has focused). Longitudinal research is needed to understand the extent that the influence of sport on children's social, emotional and physical development is cumulative. And finally, the proponents of healthy development for girls through sports need to translate the research into best practices in communities, schools and programs.⁴²

Table V-42: Athletic Involvement and Academic Achievement,
by Gender and Grade Level

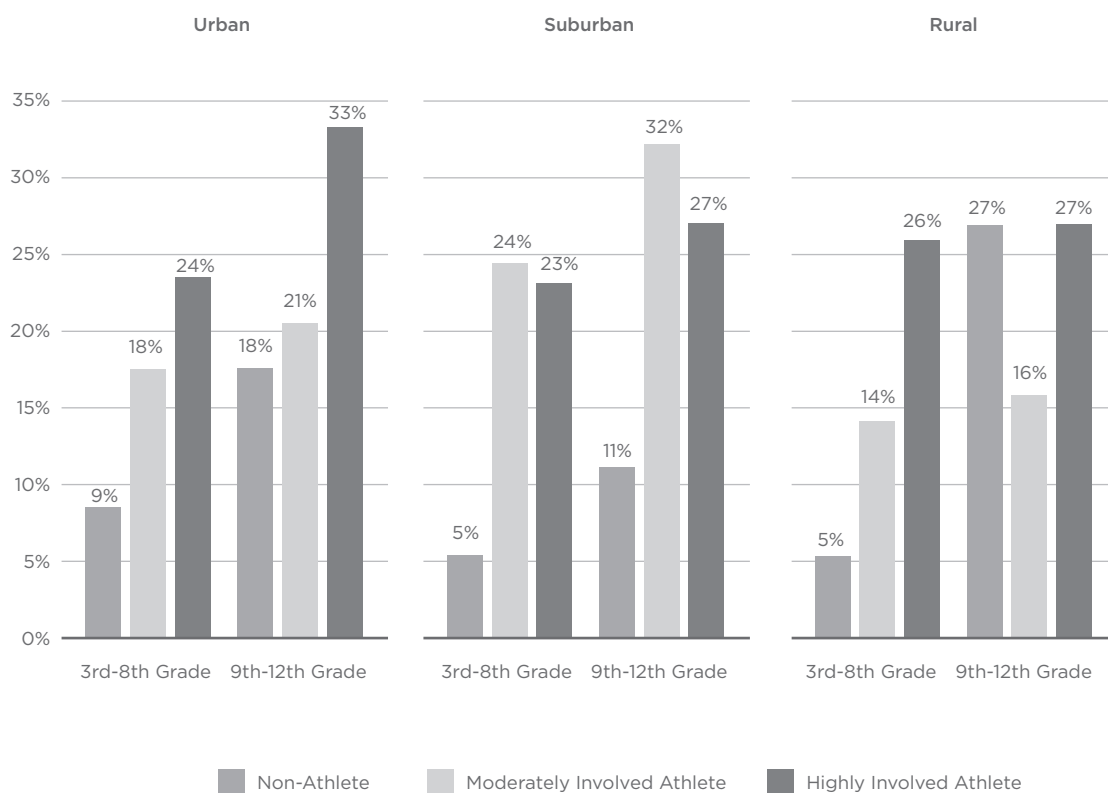


Chi-Square test comparing athletic involvement and the percent of students who indicated receiving mostly A's in school, by gender and grade.

Girls – 3rd-5th Grade: Chi-Square (2, 327) = 17.661***, $p < .001$; 6th-8th Grade: Chi-Square (2, 298) = 26.756***, $p < .001$; 9th-12th Grade: Chi-Square (2, 415) = 7.858*, $p < .05$.

Boys – 3rd-5th Grade: Chi-Square (2, 338) = 1.711, $p = .425$; 6th-8th Grade: Chi-Square (2, 336) = 15.964***, $p < .001$; 9th-12th Grade: Chi-Square (2, 410) = 5.735, $p = .057$.

Table V-43: Girls' Athletic Involvement and Academic Achievement,
by Grade Level and School Location



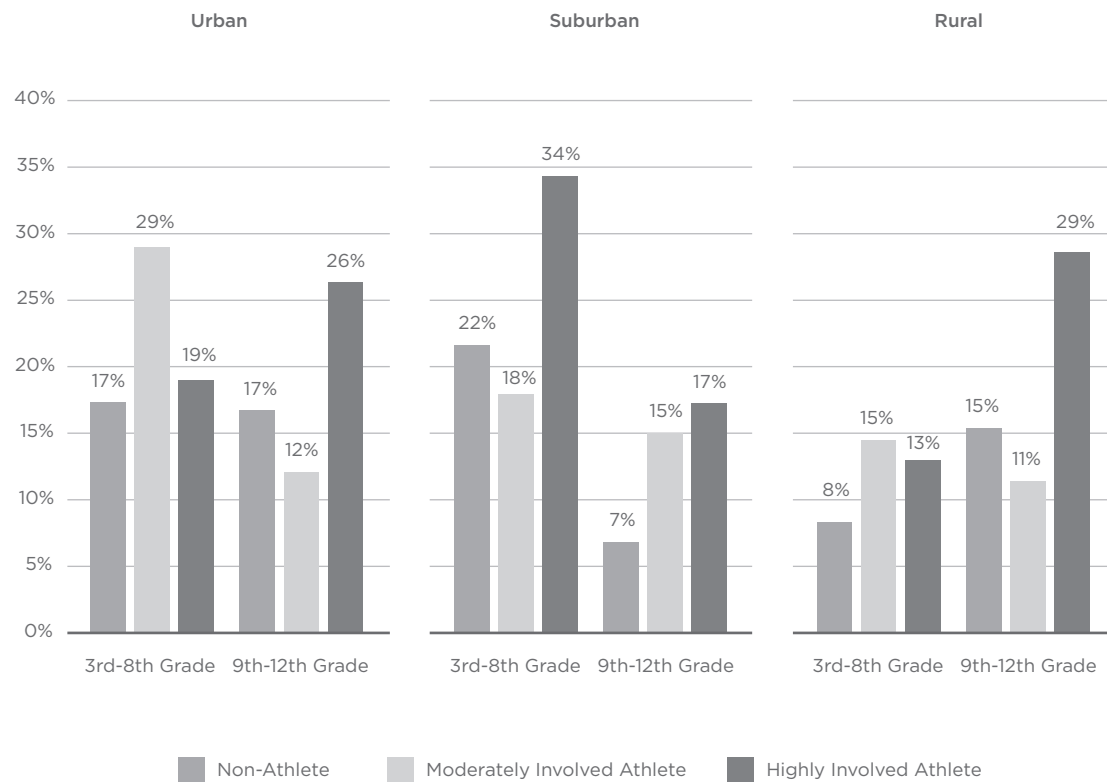
Chi-Square test comparing athletic involvement and the percent of students who indicated receiving mostly A's in school, by gender, grade and type of community.

Urban Girls – 3rd-8th Grade: Chi-Square (2, 208) = 4.701, $p = .095$; 9th-12th Grade: Chi-Square (2, 82) = 1.068, $p = .568$.

Suburban Girls – 3rd-8th Grade: Chi-Square (2, 279) = 12.145**, $p < .01$; 9th-12th Grade: Chi-Square (2, 261) = 12.363*, $p < .01$.

Rural Girls – 3rd-8th Grade: Chi-Square (2, 136) = 5.609, $p = .061$; 9th-12th Grade: Chi-Square (2, 75) = 1.411, $p = .494$.

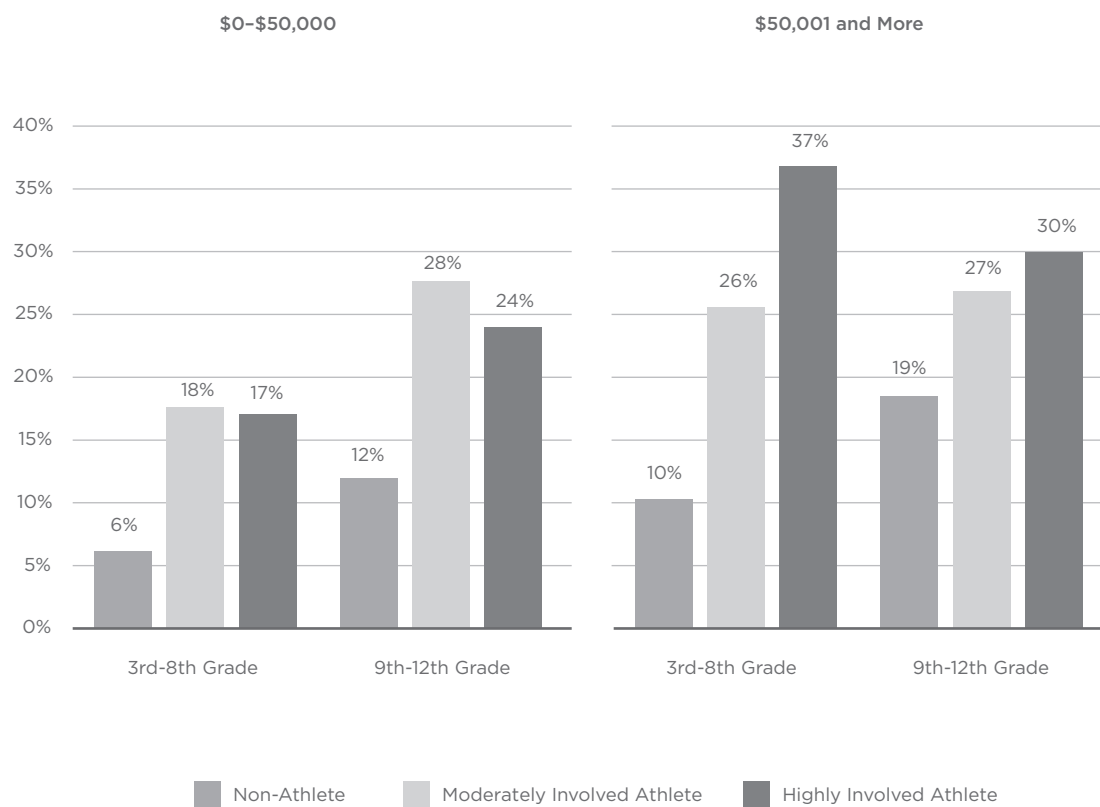
Table V-44: Boys' Athletic Involvement and Academic Achievement,
by Grade Level and School Location



Chi-Square test comparing athletic involvement and the percent of students who indicated receiving mostly A's in school, by gender, grade and type of community.

Urban Boys - 3rd-8th Grade: Chi-Square (2, 240) = 13.829***, $p = .001$; 9th-12th Grade: Chi-Square (2, 76) = 1.718, $p = .424$.
 Suburban Boys - 3rd-8th Grade: Chi-Square (2, 234) = 7.327*, $p < .05$; 9th-12th Grade: Chi-Square (2, 259) = 3.869, $p = .145$.
 Rural Boys - 3rd-8th Grade: Chi-Square (2, 197) = 1.263, $p = .532$; 9th-12th Grade: Chi-Square (2, 75) = 2.198, $p = .333$.

Table V-45: Girls' Athletic Involvement and Academic Achievement,
by Community Income Level and Grade Level



Chi-Square test comparing athletic involvement and the percent of students who indicated receiving mostly A's in school, by gender, grade and community income level.

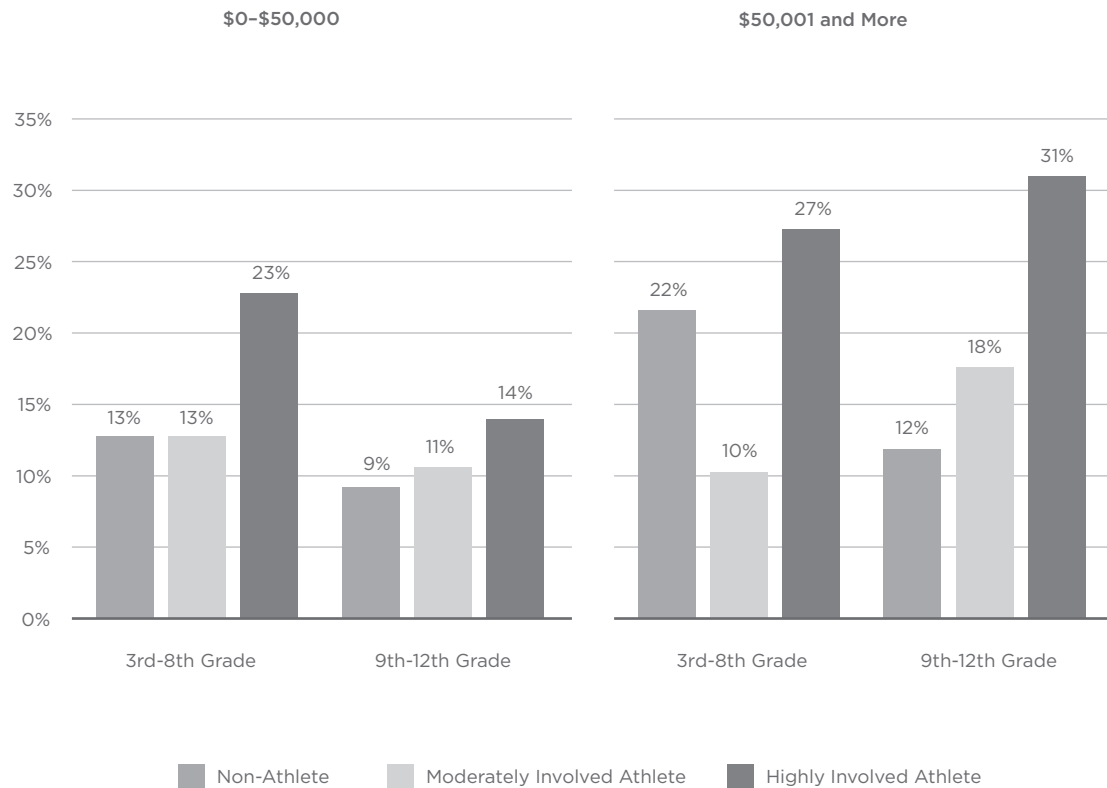
\$0-\$50,000, Girls - 3rd-8th Grade: Chi-Square (2, 410) = 10.271**, p = .01;

9th-12th Grade: Chi-Square (2, 212) = 6.588*, p = .05.

\$50,000 and More, Girls - 3rd-8th Grade: Chi-Square (2, 176) = 7.019*, p = .05;

9th-12th Grade: Chi-Square (2, 203) = 2.086, p = .352.

Table V-46: Boys' Athletic Involvement and Academic Achievement,
by Grade Level and School Location



Chi-Square test comparing athletic involvement and the percent of students who indicated receiving mostly A's in school, by gender, grade and community income level.

\$0-\$50,000, Boys - 3rd-8th Grade: Chi-Square (2, 419) = 6.374*, $p < .05$;

9th-12th Grade: Chi-Square (2, 219) = .688, $p = .709$.

\$50,000 and More, Boys - 3rd-8th Grade: Chi-Square (2, 244) = 9.491**, $p < .01$;

9th-12th Grade: Chi-Square (2, 192) = 6.023*, $p < .05$.

Part VI: Entry into Sports, Dropping Out of Sports

The findings in this section document the existence of a narrower window of opportunity for girls in sport. Girls enter sports at a later age than boys and drop out sooner and in greater numbers. These gender differences flow from an array of interconnected factors that involve family income, race and ethnicity, and type of community.

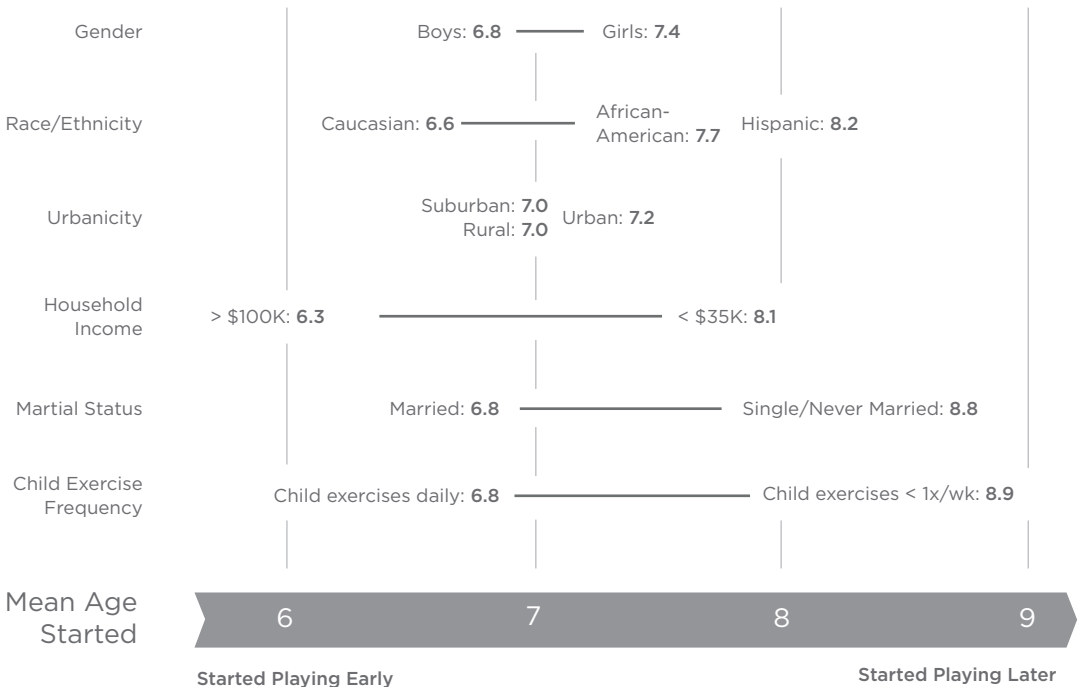
Age at Entry into Sport

The parent survey provided detailed information about the age children first get involved with sports and if or when they drop out. Girls' first experiences with team sports occurred later than boys did. On

average girls entered sport at 7.4 years old while boys did so at 6.8 years old. See Table VI-1. While 47% of girls were involved with some kind of organized sport by age 6, 60% of boys were participating at that age. See Table VI-2 on following page. This means that more girls than boys started organized sport between 7 and 10 years old (38% and 29%, respectively) and 11 and older (16% and 11%, respectively).

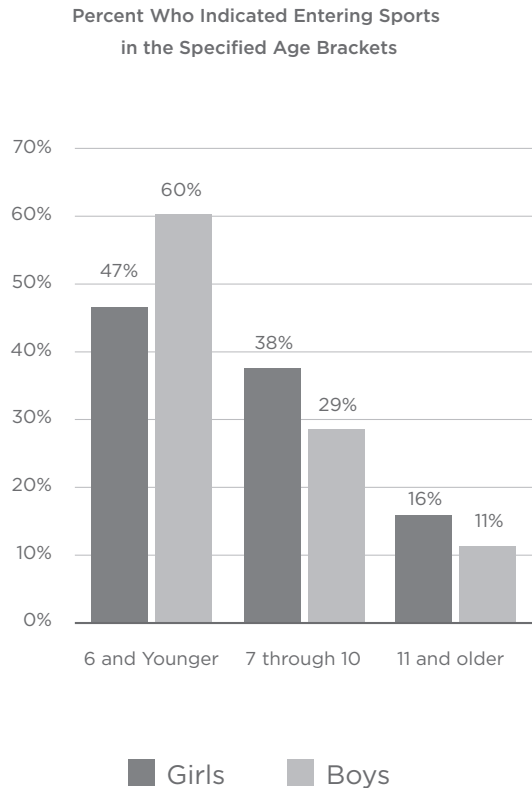
What might contribute to girls' later entry into sport? A family's financial resources play a role. First, compared with middle-income and low-income families, children in the wealthiest families (\$75,000 and higher) were much more apt to enter sport at

Table VI-1: Mean Age at Entry into Organized/Team Sports and Related Facts



[Base: Ever Played Organized or Team Sport (N = 725) = Current Participant (n = 583) + Past Participant (n = 142)]

**Table VI-2: Age at Entry into Sport,
by Gender and Age**



Chi-Square test comparing gender and age
at entry into sports.

Chi-Square (2, 717) = 13.435***, p = .001.

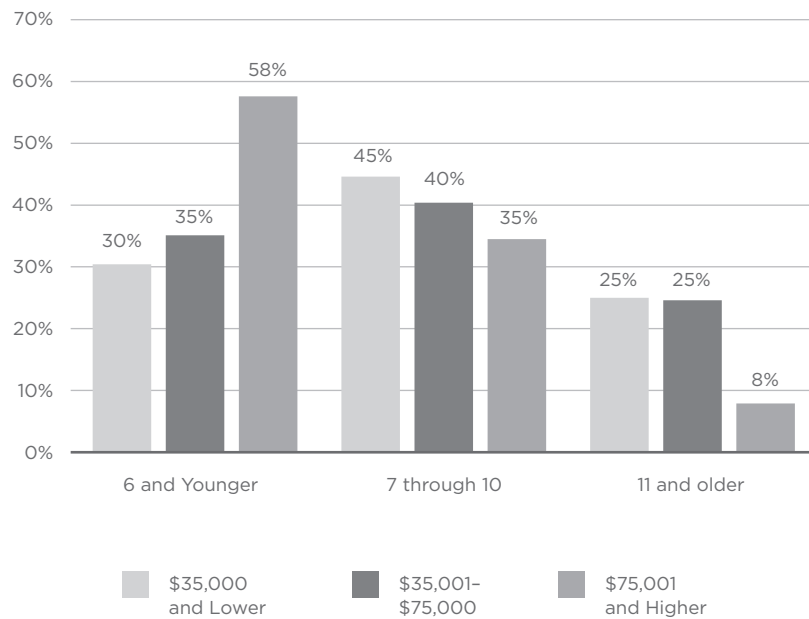
earlier ages. Children in families with incomes higher than \$100,000 entered sport at the average age of 6.3, compared with an 8.1 average age among those in families with less than a \$35,000 annual income. Moreover, a gender gap in early involvement with sports persisted across all family income levels, with fewer girls than boys involved with sports before age 6. See Tables VI-3 and VI-4 on following pages.

Among both girls and boys, children of color entered sport at a later average age than their white counterparts. A comparison of Tables VI-5 and VI-6 (on pages 123 and 124) shows that gender differences persisted across racial and ethnic groups, with more boys than girls entering sports at 6 years old and younger. White girls and boys were most likely to be involved with sports at age 6 or younger (53% and 68%, respectively). The early entry rates for African-American girls and boys were 29% and 51%, respectively, compared with 32% and 44% of Hispanic girls and boys. It is also noteworthy that almost one in four Hispanic girls and boys did not start playing organized sports until age 11 or older. Cultural values may be operating here.

Finally, the widest gap between the age girls and boys entered sport appeared in urban communities (7.8 and 6.9 years old, respectively). See Table VI-7 on page 125. Children's life chances in sport are partly shaped by the social situations of their families. Disproportionately higher percentages of poor African-Americans, for example, live in American cities than in suburbs. When compared to urban and rural communities, suburban communities typically have more public parks, community-based athletic leagues, athletic facilities and school-based sports programs. Major cities, in contrast, have fewer sport resources to offer youth, and, often, girls have fewer options and opportunities than boys do.

Table VI-3: Age at Entry into Sport for Girls,
by Family Income and Age

Percent Who Indicated Entering Sports in the Specified Age Brackets

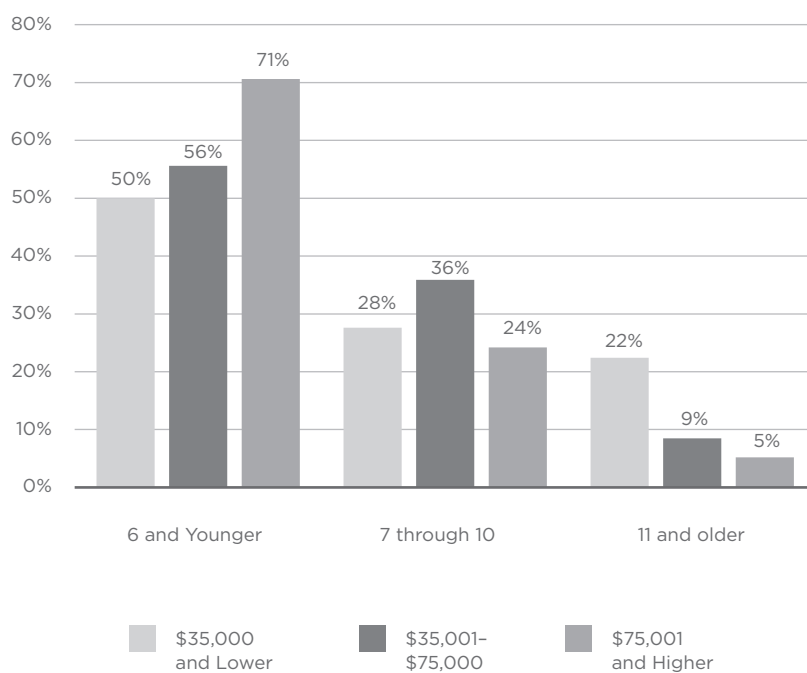


Chi-Square test comparing family income and age at entry into sports for girls.

Chi-Square (4, 309) = 23.939***, $p < .001$.

Table VI-4: Age at Entry into Sport for Boys,
by Family Income and Age

Percent Who Indicated Entering Sports in the Specified Age Brackets

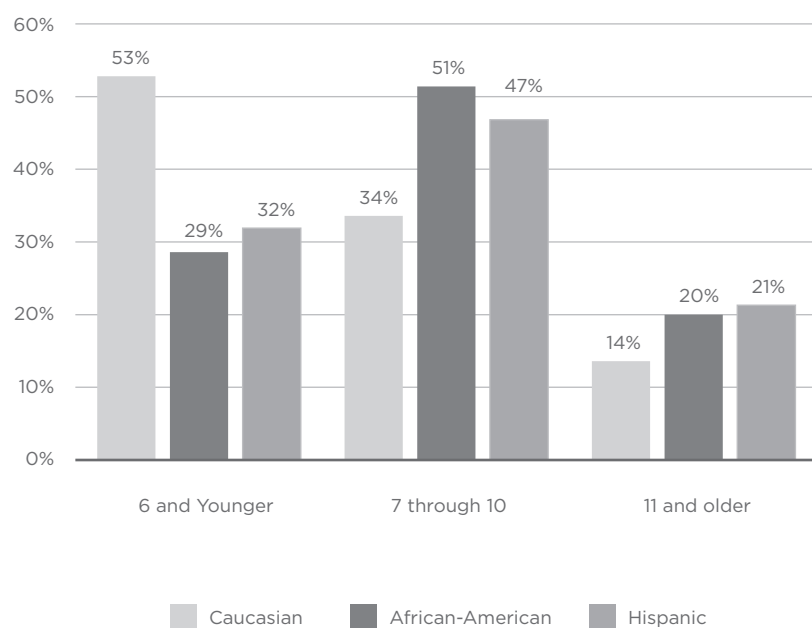


Chi-Square test comparing family income and age at entry into sports for boys.

Chi-Square (4, 346) = 22.762***, $p < .001$.

Table VI-5: Age at Entry into Sport for Girls, by Race and Age

Percent Who Indicated Entering Sports in the Specified Age Brackets

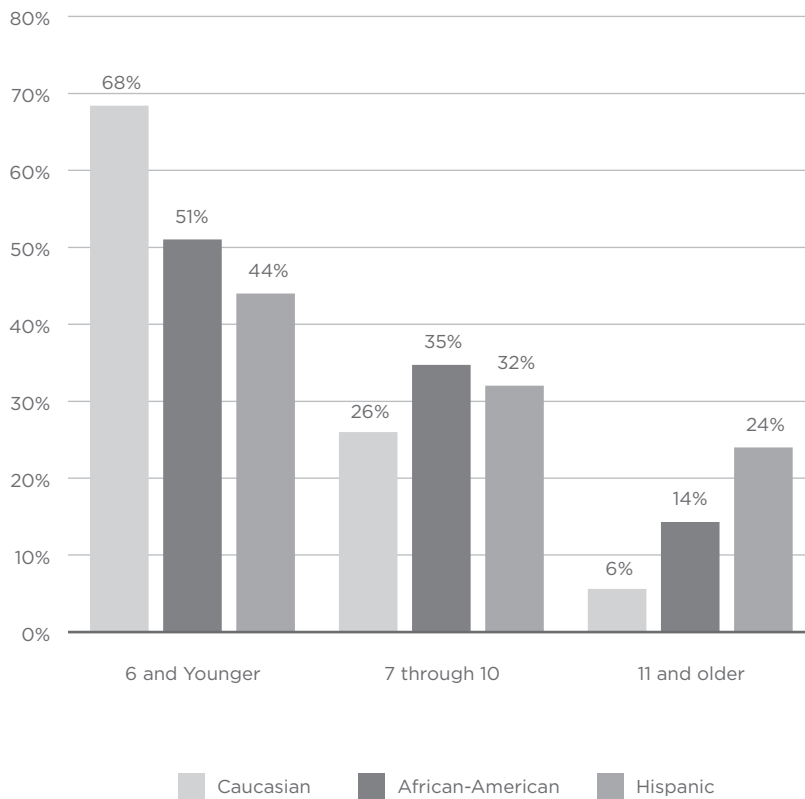


Chi-Square test comparing race and age at entry into sports for girls.

Chi-Square (4, 317) = 12.316*, p <.05.

Table VI-6: Age at Entry into Sport for Boys, by Race and Age

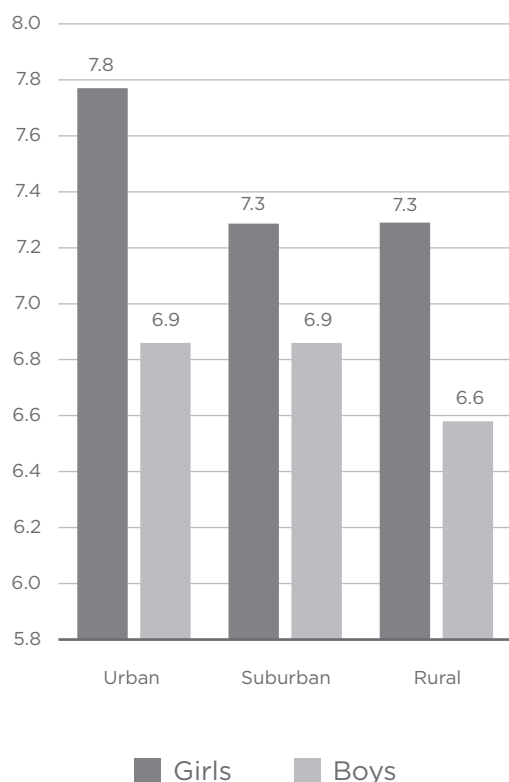
Percent Who Indicated Entering Sports in the Specified Age Brackets



Chi-Square test comparing race and age at entry into sports for boys.

Chi-Square (4, 355) = 26.477*, $p < .001$.**

Table VI-7: Average Age of Children When They First Enter Sports, by Urban, Suburban and Rural Areas



T-test comparing gender and age at entry into sports, by school location.

Urban: $t = -1.946$, $df = 178$, $p = .053$;
 Suburban: $t = -1.339$, $df = 391$, $p = .181$;
 Rural: $t = -1.793$, $df = 142$, $p = .075$.

Differences in gender, family income and type of community interface to produce the results depicted in Table VI-8 on following page. It was urban girls from the poorest families who entered sports later than any other subgroup. But even poorer girls in suburbs entered sport later on average than their economically better-off peers. As family income increased, both girls and boys tended to enter sports earlier in life, yet across all communities, a gender gap that favors earlier entry for boys persisted.

Dropping Out of Sport, Re-Entering Sport

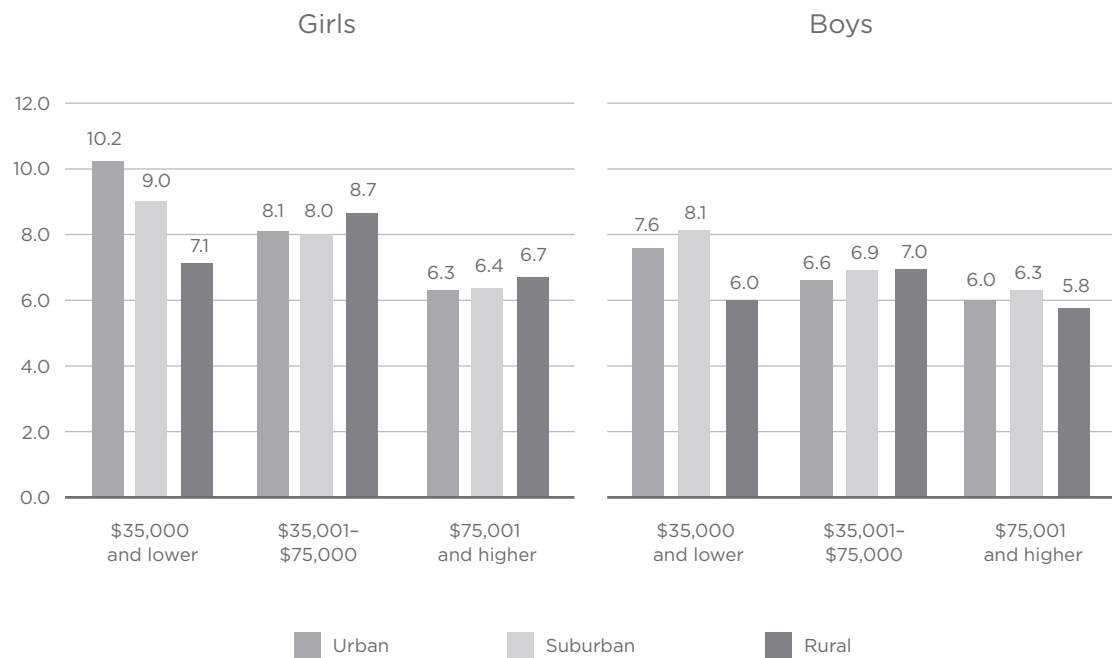
Participation in sports fluctuates a good deal across childhood and adolescence. In the past, drop-out in sport was often viewed as a more or less permanent shift in athletic status; i.e., when a child quit a sport, he or she “became” a drop-out. However, the pattern of youth involvement with sports is more complex and fluid than this. Some youngsters get involved during early childhood and stay involved through young adulthood. Other children play sports for a few years and then drop out, never to return. Still others who drop out of one organized sport at age 11 or 12 may get back involved or pick another sport a year or two later. The Women’s Sports Foundation’s *Go Out and Play: Youth Sports in America* report is the first to track entry, drop-out and re-entry into sports among a national sample of U.S. children.

Nearly half of all current sport team players stopped or dropped out at some point. One in 10 students stopped playing organized or team sports entirely, while a third resumed playing after initially dropping out. See Figures VI-9 and VI-10 on page 127.

The Gender Difference and Sport Drop-Out

No matter where children lived or went to school, the sport drop-out rate moved upward as they grew older—and for both sexes. Among urban children the 3% rate among third- to fifth-graders jumped eightfold to 27% in high school. See Figure VI-11 on page 127. Urban children also experienced the highest percentage of sport drop-out in middle school (18%, compared to suburban — 9% — and rural — 10%).

Table VI-8: Average Age of Children When They First Enter Sports



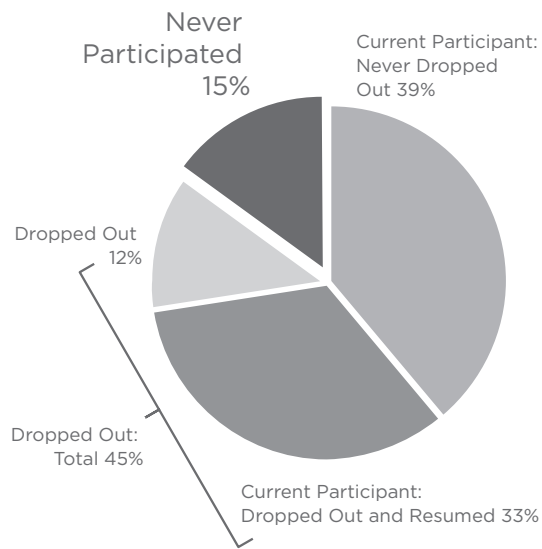
Sample sizes for type of community and family income.

Urban: \$35,000 and Lower (n = 45); \$35,001-\$75,000 (n = 66); \$75,001 and Higher (n = 52).

Suburban: \$35,000 and Lower (n = 55); \$35,001-\$75,000 (n = 119); \$75,001 and Higher (n = 192).

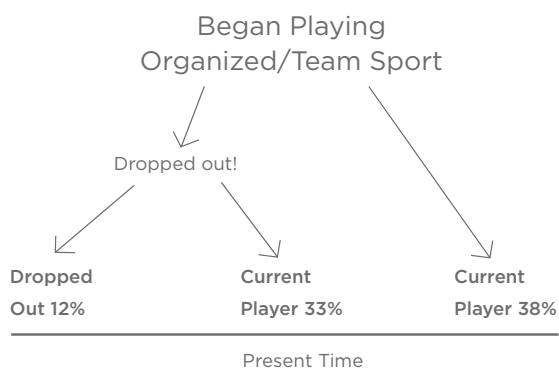
Rural: \$35,000 and Lower (n = 31); \$35,001-\$75,000 (n = 45); \$75,001 and Higher (n = 47).

Table VI-9: Drop-Out Experiences of U.S. Children



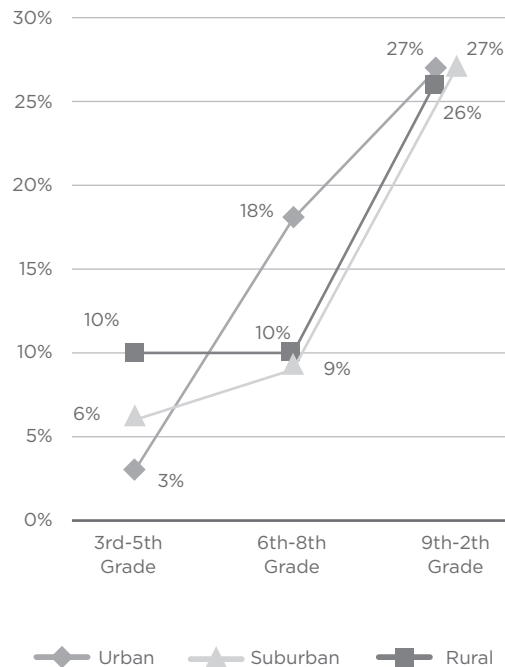
[Base: Total Respondents (N = 2185)]

Table VI-10: Drop-Out and Re-Entry in Sport



[Base: Total Respondents (N = 2185)]

Table VI-11: Drop-out Rate, by Type of Community and Grade Level



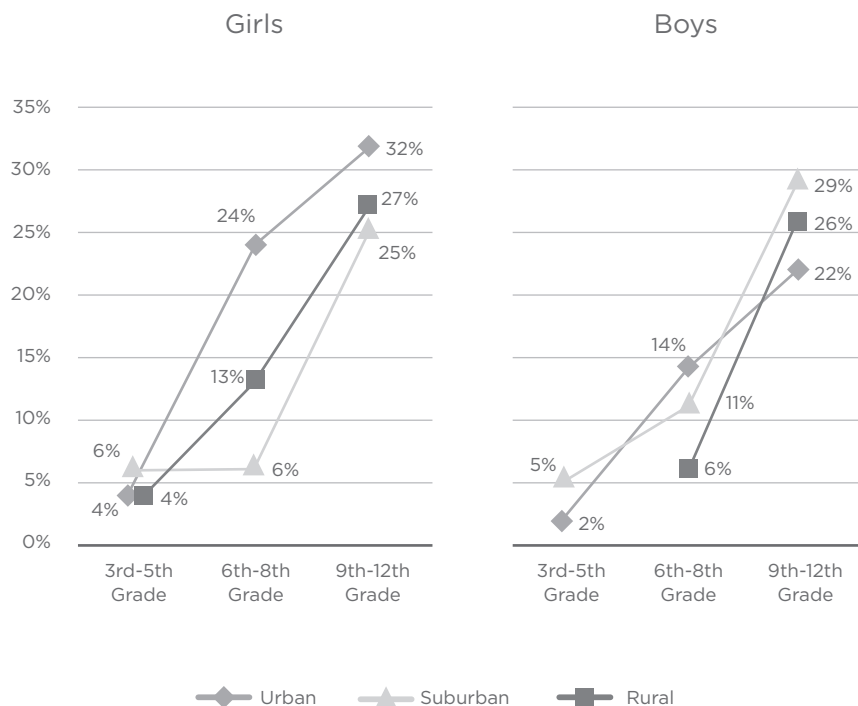
Sample sizes for drop outs by type of community.

Urban dropouts (n = 37); Urban base total (n = 234).
 Suburban dropouts (n = 71); Suburban base total (n = 459).
 Rural dropouts (n = 26); Rural base total (n = 170).

A comparison between the drop-out rates of girls and boys across grade levels and communities reveals two key differences. See Figure VI-12. First, for both girls and boys, the rates increased between elementary school, middle-school and high school—except among suburban girls, for whom the drop-out rate remained steady at 6% from third through eighth grades.

Second, whereas the drop-out rates of suburban and rural girls and boys in middle schools were comparable, the rate for urban girls in middle schools was significantly higher. To the extent that sports help track young people toward more active lifestyles, it is urban girls who are most likely to be derailed by drop-out.

Figure VI-12: Sport Dropout Rates, by Gender, Grade Level and Type of Community



Sample sizes for drop outs by type of community for girls:

Urban dropouts (n = 22); base total (n = 103); Suburban dropouts (n = 32); base total (n = 232); Rural dropouts (n = 13); base total (n = 91).

Sample sizes for drop outs by type of community for boys:

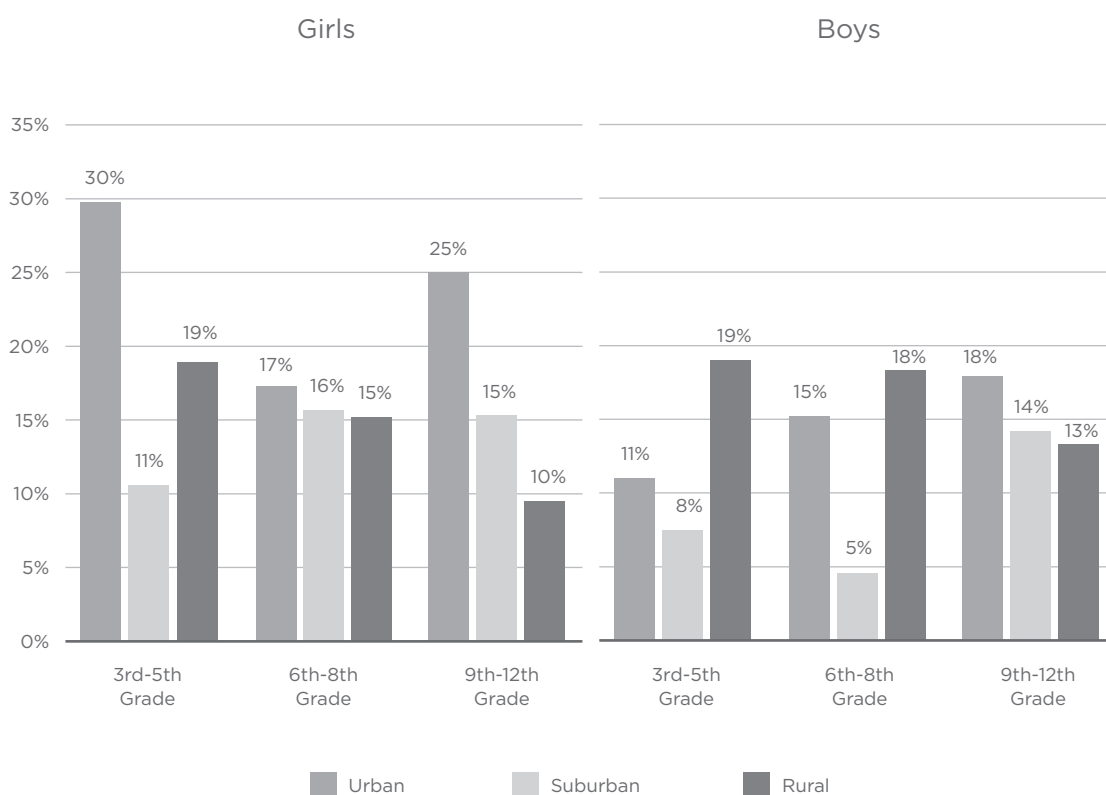
Urban dropouts (n = 16); base total (n = 131); Suburban dropouts (n = 39); base total (n = 227); Rural dropouts (n = 14); base total (n = 79).

Never Getting Involved with Sports

Urban girls in both third-to-fifth grades and high school were significantly more likely than same-grade boys to never play sports. See Table VI-13. Among the third- to eighth-graders, about one in three girls never

played, compared to about one in 10 boys. Rural girls in the elementary school grades were not far behind with one in four (25%) never participating.

Table VI-13: Never Participated in Organized Sport



Chi-Square test comparing community type and percentages of students who have never participated in sports, by gender and grade.

Girls - 3rd-5th Grade: Chi-Square (2, 326) = 13.5***, $p < .001$; 6th-8th Grade: Chi-Square (2, 306) = .101, $p = .91$; 9th-12th Grade: Chi-Square (2, 418) = 7.445*, $p < .05$.

Boys - 3rd-5th Grade: Chi-Square (2, 331) = 6.161*, $p < .05$; 6th-8th Grade: Chi-Square (2, 340) = 12.644**, $p < .01$; 9th-12th Grade: Chi-Square (2, 412) = .893, $p = .640$.

Students State Their Reasons for Dropping Out

If students indicated that they had once stopped playing an organized or team sport, then they checked “yes” or “no” to a list of 16 reasons for dropping out. They were also invited to write in “some other reason” not on the list, which were later coded. Not having fun was the main reason students dropped out of organized sports. See Table VI-14. More girls than boys also stopped playing in order to focus on academics. Injuries were often cited by both girls and boys. While 22% of girls “wanted to focus more on other clubs or activities,” this was not a reason among boys.

Four groups of reasons emerged why students dropped out of organized or team sports: family/ money reasons, health problems, interest in other activities and finding that sports are not enjoyable. Tables VI-15 through VI-18 (on pages 131 to 134) present a variety of basic findings that pertain to grade level, race and ethnicity, and whether students had dropped out and later returned to sport. Older girls were more likely to stop sports in order to get a job or to care for younger siblings.

Finally, the parent survey queried fathers and mothers about why their child had dropped out of sports. “It was no longer fun” topped the list of parental explanations for both daughters and sons. Too much competition and not being “good enough” were

Table VI-14: Top Reasons Dropped Out Or Stopped Playing Organized/Team Sports

Multiple Response			
Girls		Boys	
I was not having fun	38%	I was not having fun	39%
I wanted to focus more on studying and grades	36%	I had a health problem or injury	29%
I had a health problem or injury	27%	I wanted to focus more on studying and grades	26%
I wanted to focus more on other clubs or activities	22%	I did not like or get along with the coach	22%
I did not like or get along with the coach	18%	I wanted to focus more on other clubs or activities	18%
I did not like or get along with others on the team	16%	I did not like or get along with others on the team	16%
I was not a good enough player	15%	I was not a good enough player	15%
My family worried about me getting hurt or injured while playing sports	14%	My family worried about me getting hurt or injured while playing sports	12%

Table VI-15: Four Groups of Reasons for Sport Drop-Out

Family/Money Issues

I didn't have the equipment needed to play.

I had a problem traveling to practice.

My mother or father said I could not play.

My family didn't have enough money.

My family worried about me getting hurt or injured while playing sports.**

My family worried about my safety.

My school or community didn't offer the sports I liked.**

Health-Related

I had a health problem or injury.

My family worried about me getting hurt or injured while playing sports.**

Have Other Activities

I wanted to focus more on studying and grades.

I had a job.

I had to care for younger brothers or sisters.

I wanted to focus more on other clubs or activities.

Team Sport Not Enjoyable

I was not having fun.

I was not a good enough player.

I did not like or get along with the coach.

My school or community didn't offer the sports I liked.**

I did not like or get along with others on the team.

[Multiple Response]

motives for sons to exit sports but not daughters. See Table VI-19 on page 135.

Reasons for Never Participating in Sport

While public health advocates stand on solid policy ground when they encourage all children to be physically active, it is understandable that not all children get involved with sports. Since sports can be a gateway to favorable health and educational outcomes, however, it also makes sense to find out why some children never get involved with sports in their schools or communities.

Seventeen percent of the parents interviewed (N = 142) indicated that their children had never played an organized or team sport. Table VI-20 (on page 135) breaks down the top five reasons that they cited for

their children's noninvolvement with sport. Parents of both girls and boys most often said sports were just not interesting or fun for their children. About one in 10 parents said that the school did not offer a sport their daughter or son liked (13% and 10%, respectively). While daughters were said to have developed "other interests" and to spend more time studying, parents explained that sons lacked parental support or adequate family finances or that health and basic athletic skills were a deciding factor.

Conclusion

Many boys get a head start entering a lifestyle that includes athletic participation. In addition to their gender, the extent that girls tend to get a later start depends a lot on where they live, their family's income level, and their race and ethnicity.

Table VI-16: Top Reasons Dropped Out or Stopped Playing Organized/Team Sports, by Gender and Age

	Girls		Boys	
I had a health problem or injury.	22%	32%	24%	35%
My family was worried about me getting hurt or injured while playing sports.	20%	7%	12%	12%
I had a job.	7%	21%	4%	24%
	3rd-8th Grade (251)	9th-12th Grade (286)	3rd-8th Grade (230)	9th-12th Grade (213)

[Multiple Response] [Base: Played an Organized/Team Sport but at Some Point Have Stopped (N = 986)]

Why does the gender gap in age at entry into sport exist at all? It may be that some parents nudge their sons toward sports at younger ages than their daughters. Another explanation is that more girls are apt to enter sport at younger ages when plenty of athletic opportunities exist for them in the schools and communities. The availability of more “girl-sensitive” or “girl-centered” programs might get parents’ attention and also help to recruit and retain younger girls.⁴³

If more girl-centered programs and well-organized coed programs exist in a community, then the likelihood of a gender gap among third- to fifth-graders should be lower. In short, where more gender equity exists, girls should be entering sports at younger ages. Indeed, findings presented in Section I of this report showed that girls and boys in suburban communities had similar rates of athletic participation. Gender differences in athletic participation were more common in rural and urban communities. The surge

in drop-out rates among middle-school girls, which is happening in urban and rural communities but not suburban communities, is consistent with this larger pattern. Could the downturn in middle school girls’ participation be related to the fact that, while girls and boys play together at the elementary school level, as soon as sport becomes sex-separate, organized after-school sports opportunities for girls both inside and outside of school decline in number and quality.⁴⁴ More research is needed to understand this key transitional phase in the physical and athletic lives of sixth- to eighth-grade girls and boys.

We can only speculate about how girls’ “late start” in sport impacts their later experiences. The worse-case scenario is that they are being set up failure. Late entry may impair or slow down the development of physical skills and athletic self-confidence. Once they get to middle school where there are more sports opportunities available, the lack of basic skills and athletic know-how may catch up to

Table VI-17: Top Reasons Dropped Out or Stopped Playing Organized/Team Sports, by Gender and Race

	Girls			Boys		
I was not having fun.	52%	27%	17%	50%	31%	22%
I had a health problem or injury.	30%	19%	26%	26%	18%	43%
I wanted to focus more on studying and grades.	29%	46%	51%	21%	34%	29%
I had to care for younger brothers/sisters.	9%	16%	25%	4%	9%	18%
	Caucasian (296)	African-American (97*)	Hispanic (97*)	Caucasian (239)	African-American (75*)	Hispanic (60*)

[Multiple Response] [Base: Played an Organized/Team Sport but at Some Point Have Stopped (N = 986)]

girls. For urban girls especially, who have meager access to community-based recreation and sport programs, the increased array of programs offered in middle schools is a real opportunity to get more involved. But succeeding in these programs can be problematic if youngsters lack the fundamental skills and self-assurance to stick with the team. Sports experiences are less likely to be “fun” and fulfilling for less physically skilled children—prime reasons why children drop out of sport.

Table VI-18: Top Reasons Dropped Out or Stopped Playing Organized/Team Sports, by Gender and Participation

	Girls		Boys	
I was not having fun.	39%	36%	40%	37%
I wanted to focus more on studying and grades.	39%	28%	26%	25%
I had a health problem or injury.	29%	22%	32%	20%
I wanted to focus more on other clubs or activities.	22%	22%	17%	12%
I did not like or get along with the coach.	20%	13%	23%	18%
I did not like or get along with others on the team.	16%	15%	17%	22%
	Dropped Out & Returned (387)	Dropped Out (150)	Dropped Out & Returned (319)	Dropped Out (124)

[Multiple Response] [Base: Played an Organized/Team Sport but at Some Point Have Stopped]

Table VI-19: Parents' Top Five Explanations Why Their Child Dropped Out of Sports

Girls' Reasons

1.) It was no longer fun	34%
2.) Other interests developed	9%
3.) No programs in the school or community	7%
4.) Not a good enough player	6%
4.) Wanted to focus more on studying and grades	6%
4.) Does not have enough time	6%

Boys' Reasons

1.) It was no longer fun	25%
2.) Not a good enough player	9%
3.) Too competitive	9%
4.) Other interests developed	7%
5.) Health-related injury	7%
5.) Lack of interest	6%

[Multiple Response]

Table VI-20: Parents' Top Five Explanations Why Their Child Never Participated in Sports

Girls' Reasons

1.) Lack of Interest	20%
2.) Sports are not fun	19%
3.) Other interests developed	12%
4.) School did not offer sports she liked	10%
5.) She wanted to focus more on studying and grades	6%
5.) Does not have time	6%

Boys' Reasons

1.) Lack of Interest	26%
2.) Sports are not fun	21%
3.) School did not offer sports he liked	13%
4.) Lack of parental support	10%
5.) Family didn't have enough money	6%
5.) Health Issues	6%
5.) Wasn't a good enough player	6%

[Multiple Response]

Part VII: Are We There Yet? Gender Equity In Sports

“Are we there yet?” Impatient children often ask this question from the backseats of cars en route to distant destinations. Many parents, educators and advocates for women’s sports ask the same question about gender equity in athletics. How many parents see an equal playing field with regard to gender and youth sports? Do parents believe that schools and communities provide similar athletic opportunities for their daughters and sons? To what extent do their views of gender equity vary by school location, family income, and race or ethnicity?

Parents Assess Gender Equity

The results show that while progress toward gender equity in sport has been made, equal opportunity in children’s sports is not yet a reality in the eyes of many parents. While a majority of parents agreed that girls get a fair shake from sports in the schools and communities, many felt that boys receive preferential treatment.

Parents were asked to respond to two statements that reflect perceptions of gender equity in sport. Forty-two percent of mothers and 36% of fathers agreed that “My community offers more sports programs for boys than girls.” Similarly, more than one-third (39%) of mothers and 37% of fathers agreed that “The schools in my community care more about boys’ sports programs than girls’ sports programs.” See Table VII-1 on following page.

Income, Race and Ethnicity

More parents in lower-income families indicated that girls were not getting similar support and resources in athletics as boys. Half of low-income parents agreed that their schools and communities were not meeting the needs of girls as much as those of boys, compared with about one-third of middle- and upper-income parents. See Table VII-2 on page 138.

Parental views of fair treatment for girls in sport also varied by race and ethnicity. See Table VII-3 on page 139. African-American parents were especially likely to identify gender bias operating in school and

community sports. Nearly half (49%) of Hispanic parents also indicated that sport program offerings for boys outnumber those provided to girls.

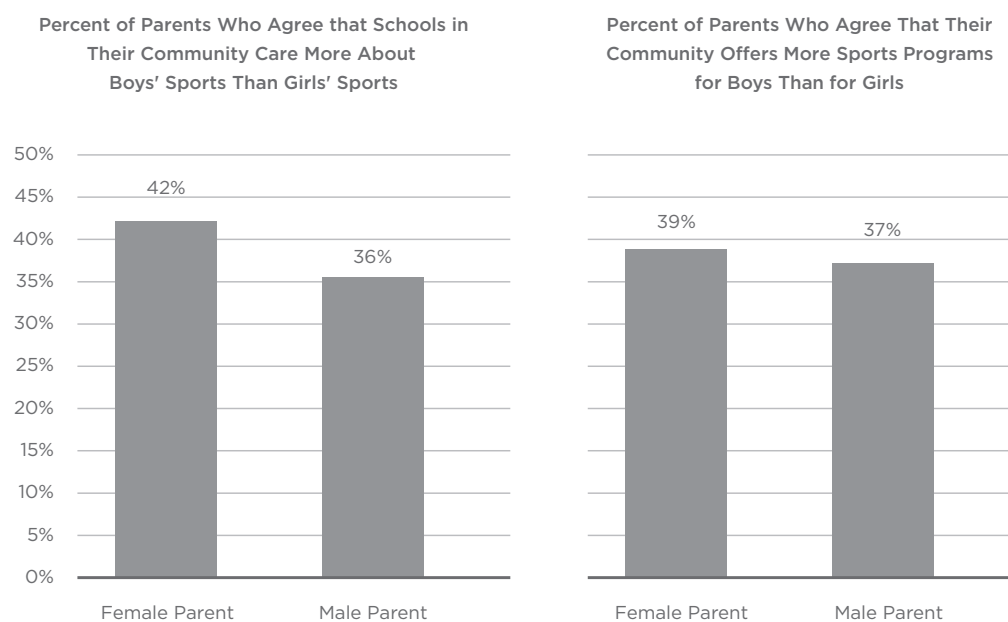
School Location

More parents with children in urban and rural schools said that their schools and communities fall short of equal treatment for girls in sports. See Table VII-4 on page 140. Some previous findings in this report revealed that the gender gap in athletic participation is especially wide in urban schools, and so the fact that more than four out of 10 parents see gender inequity at play makes sense in this context. More research is needed to understand why so many urban and rural parents feel their daughters’ involvement with sports is being devalued.

Conclusion

For substantial numbers of parents across the United States, the proverbial “glass” of gender equity in school and community sports is half-empty rather than half-full. Similar numbers of mothers and fathers report gender inequities, more people of color than whites are concerned about lack of opportunity for their daughters, and parents in lower-income families see the greatest degree of unequal treatment between girls and boys. Finally, to the extent that these parental attitudes reflect the “realities on the ground” in school and community sports, it appears that urban and rural schools have the most work to do in order to more fully meet the athletic needs and interests of girls.

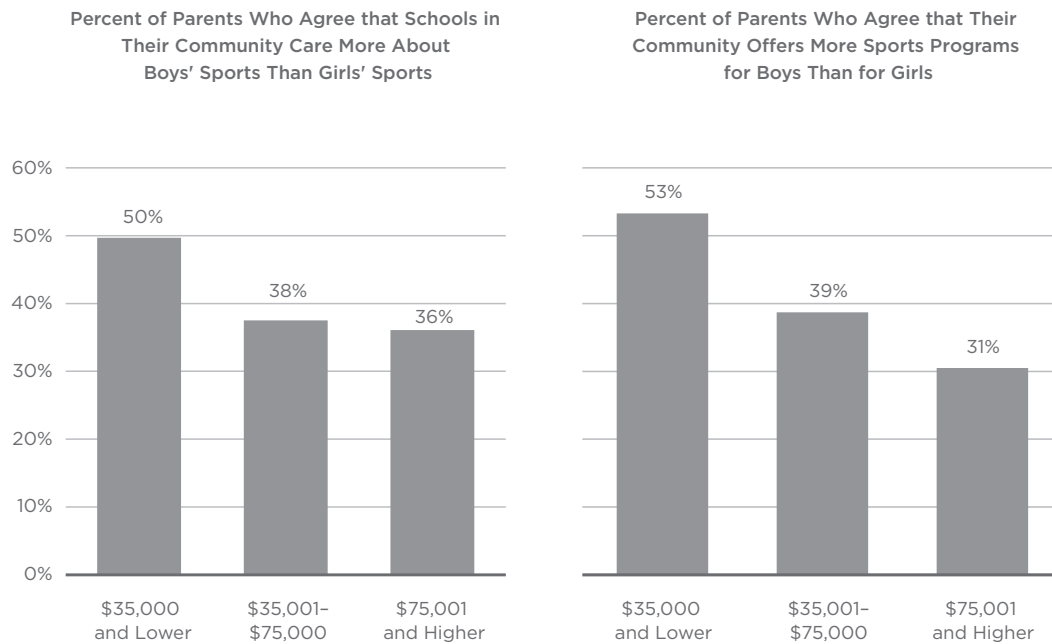
Figure VII-1: Parental Agreement with Statements about Gender Equity in Sports, by Gender of Parent



Chi-Square test comparing gender of parent and percent who agree with the above statement.
Chi-Square (1, 789) = 3.524, p = .061.

Chi-Square test comparing gender of parent and percent who agree with the above statement.
Chi-Square (1, 798) = .206, p = .650.

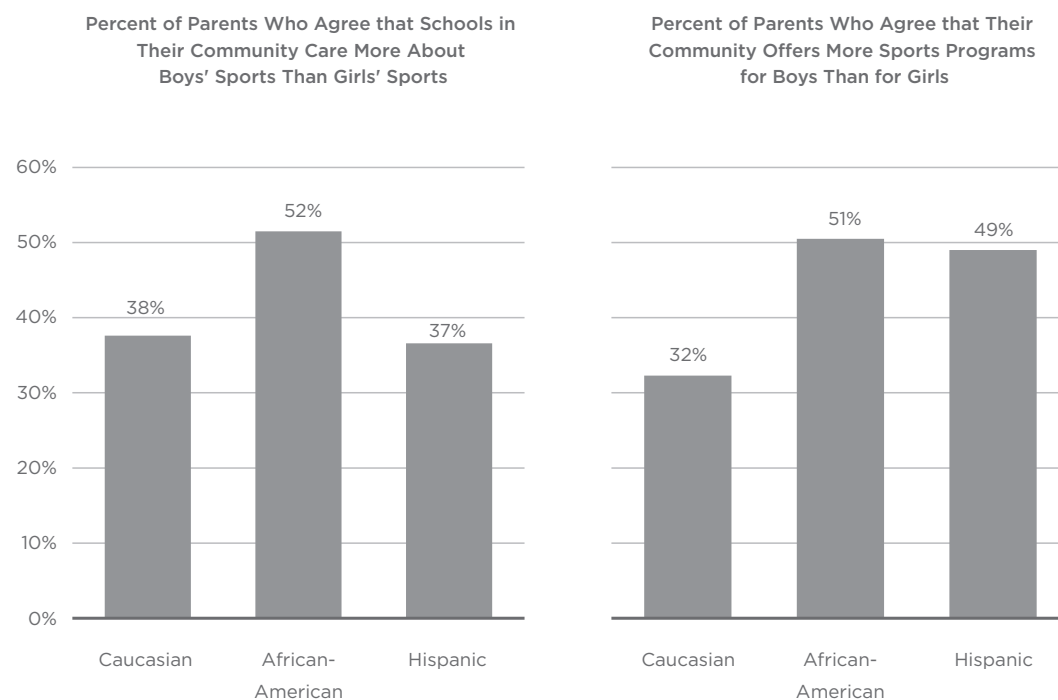
Table VII-2: Parental Agreement with Statements about Gender Equity in Sports, by Family Income



Chi-Square test comparing family income and percent who agree with the above statement.
 Chi-Square (2, 717) = 8.644*, p < .05.

Chi-Square test comparing family income and percent who agree with the above statement.
 Chi-Square (2, 729) = 22.39***, p < .001.

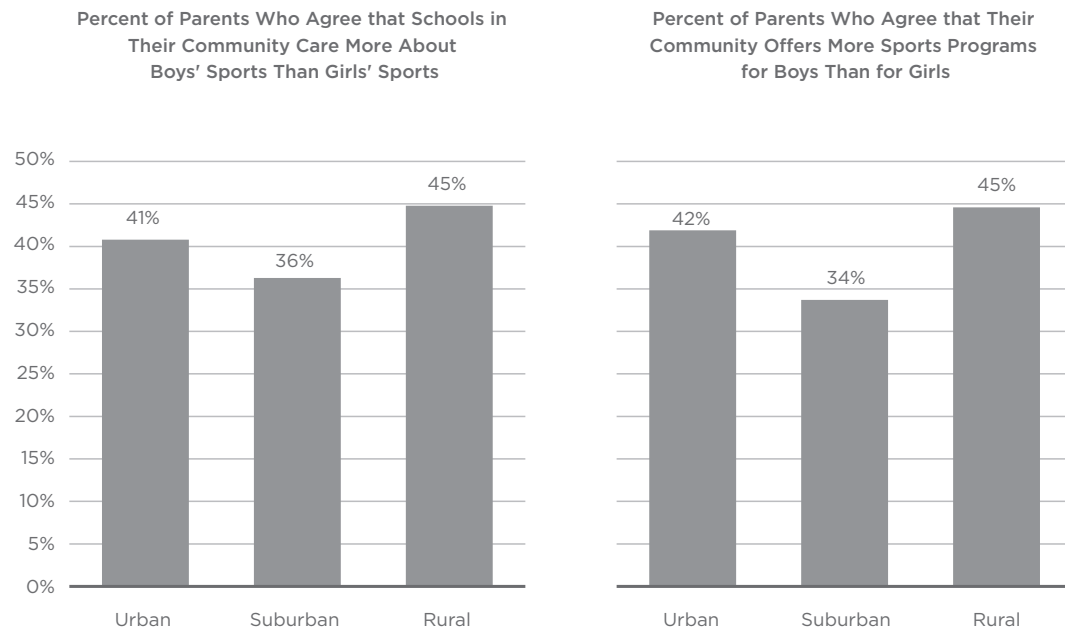
Table VII-3: Parental Agreement with Statements about Gender Equity in Sports, by Race and Ethnicity



Chi-Square test comparing race of parent and percent who agree with the above statement.
 Chi-Square (2, 740) = 7.296*, p < .05.

Chi-Square test comparing race of parent and percent who agree with the above statement.
 Chi-Square (2, 746) = 20.996***, p < .001.

Table VII-4: Parental Agreement with Statements about Gender Equity in Sports, by School Location



Chi-Square test comparing school location and percent who agree with the above statement.

Chi-Square (2, 799) = 7.787*, $p < .05$.

Chi-Square test comparing school location and percent who agree with the above statement.

Chi-Square (2, 789) = 3.856, $p = .145$.

Part VIII: Interest in Sports and Physical Activity

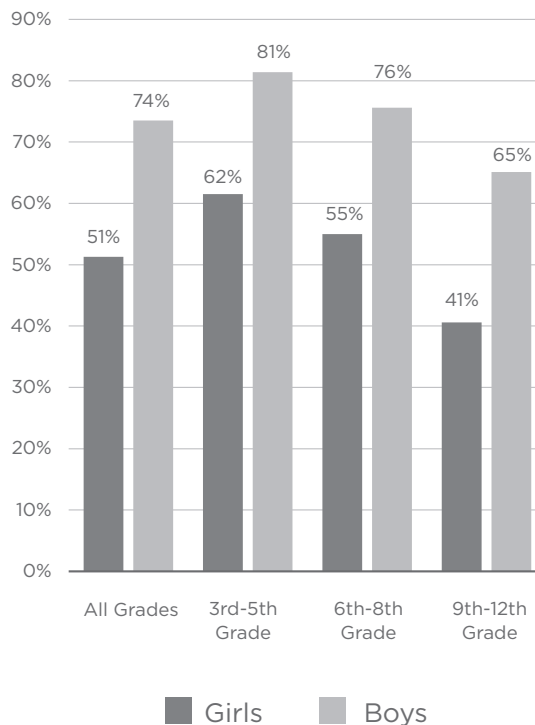
Children's interests unfold within social and cultural contexts. A child's interest in music, mathematics or basketball might be awakened within her or his family and community, nurtured by educational experiences, endorsed by cultural values or valorized by mass media. These same forces can also stifle or snuff out children's early curiosities. History and opportunity can also play a supportive or negative role. Not many children were interested in computers, for example, before laptops became common and the Internet exploded. Likewise, few girls were interested in sports when in 1972 Title IX opened the doors of opportunity in neighborhoods, schools, and colleges and universities across the country.

The findings in this section show that, overall, boys are more interested in sports and exercise than girls. But just as the gender gap in athletic participation and physical activity documented earlier in this report does not stretch uniformly across all schools and communities in the United States, children's interest in sports and exercise also seems to be related to social opportunities. Differences also exist between children's reports of their interest in sports and physical activity and how parents characterize the interest levels of daughters and sons.

Interest in Sports and Physical Activity: The School Surveys

Students were asked to agree or disagree with the statement, "I am very interested in playing sports." Across all grade levels, more boys than girls said they were very interested. See Table VIII-1. The greatest differences between girls' and boys' interest in sports occurred in urban communities. See Table VIII-2 on following page. Among the third- to fifth-graders, for example, 85% of boys and 49% of girls were very interested in playing sports. Only an 8% gender difference appeared for the same grades in rural communities (69% and 77%, which is not statistically significant).

Table VIII-1: Percentage of Students Interested in Sports, by Gender and Grade Level



Chi-Square test comparing gender and interest in sports, by grade and gender.

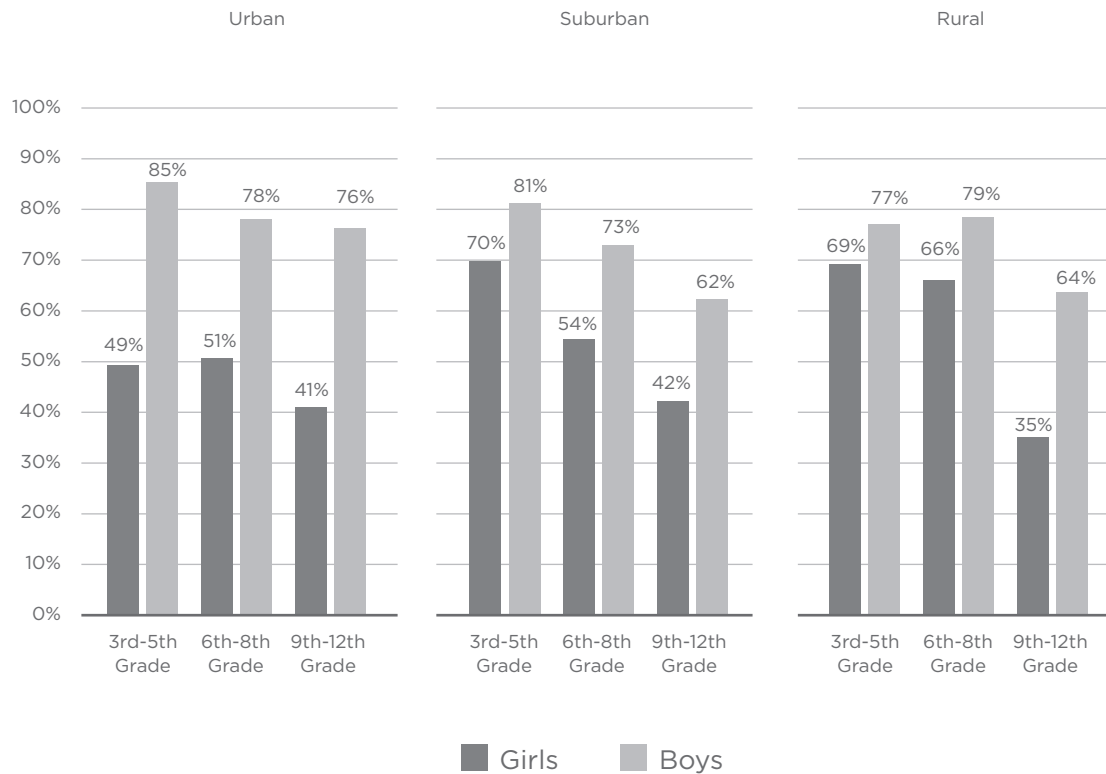
Total: Chi-Square (1,2149) = 112.402***, $p < .001$.

3rd-5th Grade: Chi-Square (1, 663) = 33.117***, $p < .001$.

6th-8th Grade: Chi-Square (1, 649) = 30.617***, $P < .001$.

9th-12th Grade: Chi-Square (1, 836) = 50.095***, $P < .001$.

Table VIII-2: Interest in Sports, by Gender, Grade Level and School Location



Chi-Square test comparing gender and interest in sports, by grade, gender and school location

Urban - 3rd-5th Grade: Chi-Square (1, 269) = 40.169***, $p < .001$; 6th-8th Grade: Chi-Square (1, 188) = 15.605***, $P < .001$; 9th-12th Grade: Chi-Square (1, 160) = 19.298***, $p < .001$.

Suburban - 3rd-5th Grade: Chi-Square (1, 191) = 3.238, $p = .072$; 6th-8th Grade: Chi-Square (1, 335) = 12.718***, $P < .001$; 9th-12th Grade: Chi-Square (1, 522) = 21.647***, $p < .001$.

Rural - 3rd-5th Grade: Chi-Square (1, 206) = 1.586, $p = .208$; 6th-8th Grade: Chi-Square (1, 127) = 2.012, $p = .156$; 9th-12th Grade: Chi-Square (1, 153) = 12.127***, $p < .001$.

The Importance of Sport in Children's Identities

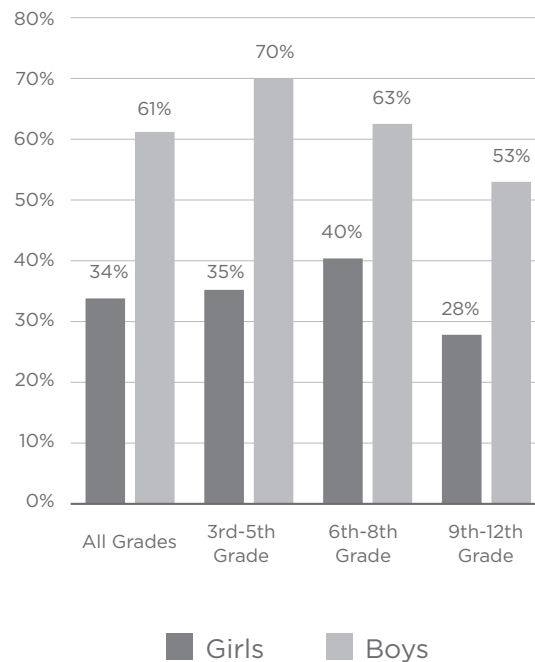
More boys than girls agreed that “sports are a big part of who I am.” See Table VIII-3. Elementary school boys emphasized sports as central to their identity, especially in urban schools. Gender differences varied across school locations as well. See Table VIII-4 on following page. Compared to girls, higher percentages of boys identified with sports in urban, suburban and rural schools at all grade levels.

U.S. children's identification with sports has been highly influenced by cultural beliefs and gender expectations. Sports were for many decades equated to “masculinity” and, at the same time, deemed “unfeminine” for girls and women. The times have changed, and the cultural meanings surrounding athletics are less driven by stereotypes. But many boys still tend to exaggerate their interest in sports in order to build up manliness or prop up their popularity at school. Boys' interest in sports might also be fueled by a strong audience participation component, which is less active for girls. In contrast, girls often tone down their athletic prowess in order to enact a more “feminine” posture. To test this assumption, we compared the extent that female and male non-athletes still said that sports were a “big part of who I am.” See Table VIII-5 on page 145. More than four out of every 10 male non-athletes (42%) in third to eighth grades highly identified with sports. About one in five male high school non-athletes did so. Comparatively low percentages of female non-athletes said sports were a key component of who they were.

Children's Enjoyment of Exercise

Student responses to the statement, “I really enjoy exercise,” yielded minor gender differences. See Table VIII-6 on page 145. Girls and boys in sixth to eighth grades expressed similar levels of enjoyment.

Table VIII-3: Percent of Students Who Indicate That Sports Are a Big Part of Who They Are, by Gender and Grade Level



Chi-Square test comparing gender and percent of students who indicate that sports are a big part of who they are, by grade and gender.

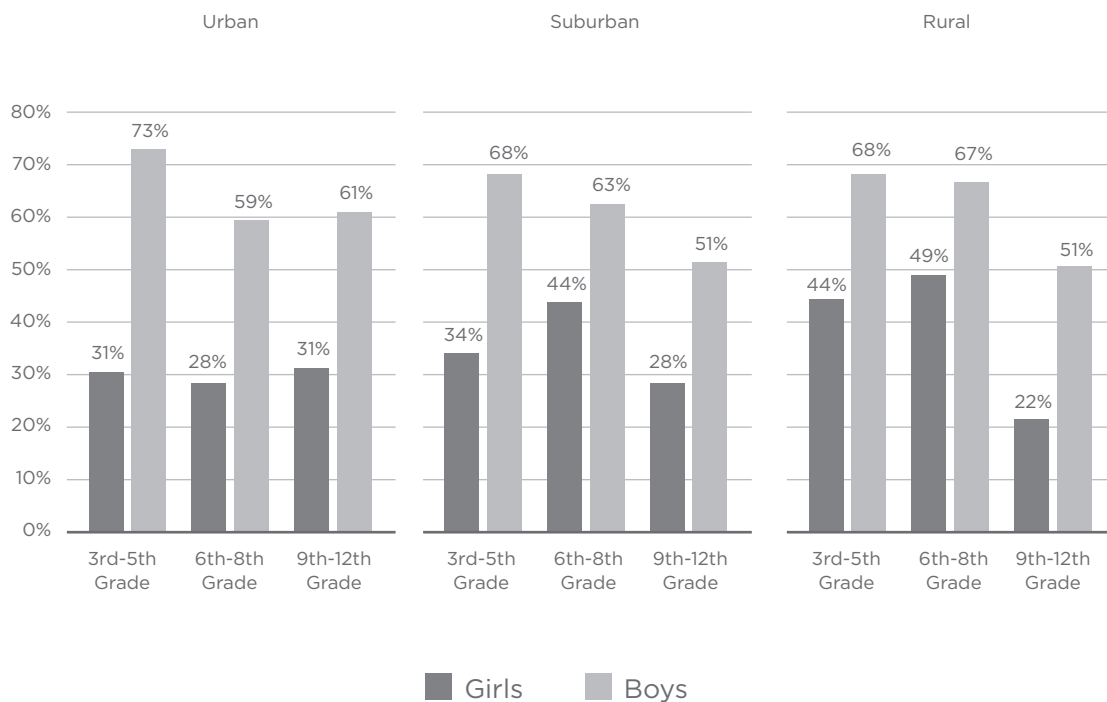
Total: Chi-Square (1,2142) = 161.411***, $p < .001$.

3rd-5th Grade: Chi-Square (1, 657) = 79.734***, $p < .001$.

6th-8th Grade: Chi-Square (1, 651) = 31.938***, $p < .001$.

9th-12th Grade: Chi-Square (1, 834) = 55.19***, $p < .001$.

Table VIII-4: Percent of Students Who Indicate That Sports Are a Big Part of Who They Are, by Gender and School Location



Chi-Square test comparing gender and percent of students who indicate that sports are a big part of who they are, by grade and school location.

Urban - 3rd-5th Grade: Chi-Square (1, 264) = 47.522***, $p < .001$;

6th-8th Grade: Chi-Square (1, 187) = 17.808***, $p < .001$; 9th-12th Grade: Chi-Square (1, 160) = 14.215***, $p < .001$.

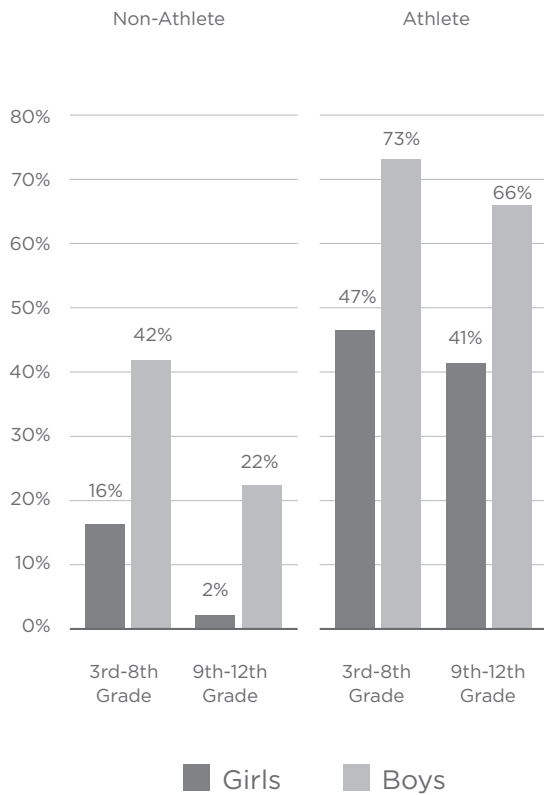
Suburban - 3rd-5th Grade: Chi-Square (1, 190) = 23.078***, $p < .001$;

6th-8th Grade: Chi-Square (1, 336) = 12.068***, $p < .001$; 9th-12th Grade: Chi-Square (1, 522) = 28.386***, $p < .001$.

Rural - 3rd-5th Grade: Chi-Square (1, 204) = 11.609***, $p = .001$; 6th-8th Grade: Chi-Square (1, 128) = 3.904*, $p < .05$;

9th-12th Grade: Chi-Square (1, 152) = 14.141***, $p < .001$.

Table VIII-5: Students Who Believe That Sports Are Big Part of Who They Are, by Gender and Athlete Status

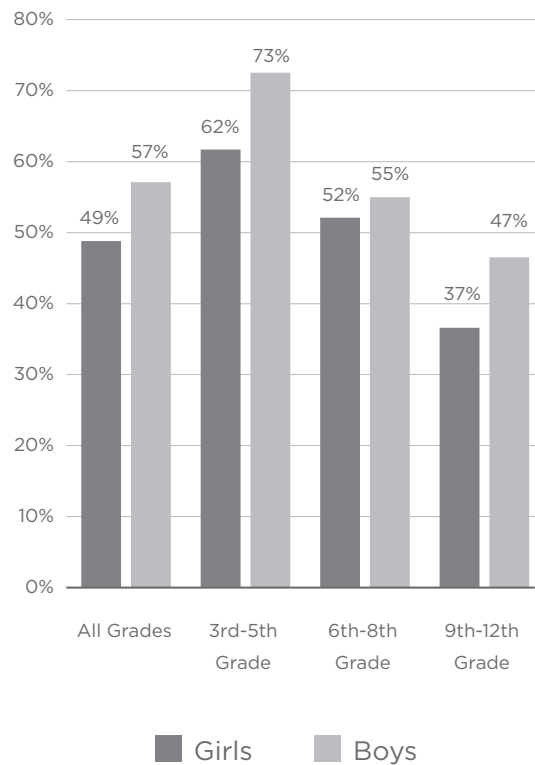


Chi-Square test comparing gender and percent of students who indicate that sports are a big part of who they are, by grade and athlete status.

Non-Athlete – 3rd-8th Grade: Chi-Square (1, 329) = 26.904***, $p < .001$; 9th-12th Grade: Chi-Square (1, 267) = 26.662***, $p < .001$.

Athlete – 3rd-8th Grade: Chi-Square (1, 976) = 72.186***, $p < .001$; 9th-12th Grade: Chi-Square (1, 563) = 36.197***, $p < .001$.

Table VIII-6: Percentage of Students Who Enjoy Exercise a Lot, by Gender and Grade Level



Chi-Square test comparing gender and percent of students who really enjoy exercise, by grade and gender.

Total: Chi-Square (1,2144) = 14.866***, $p < .001$.

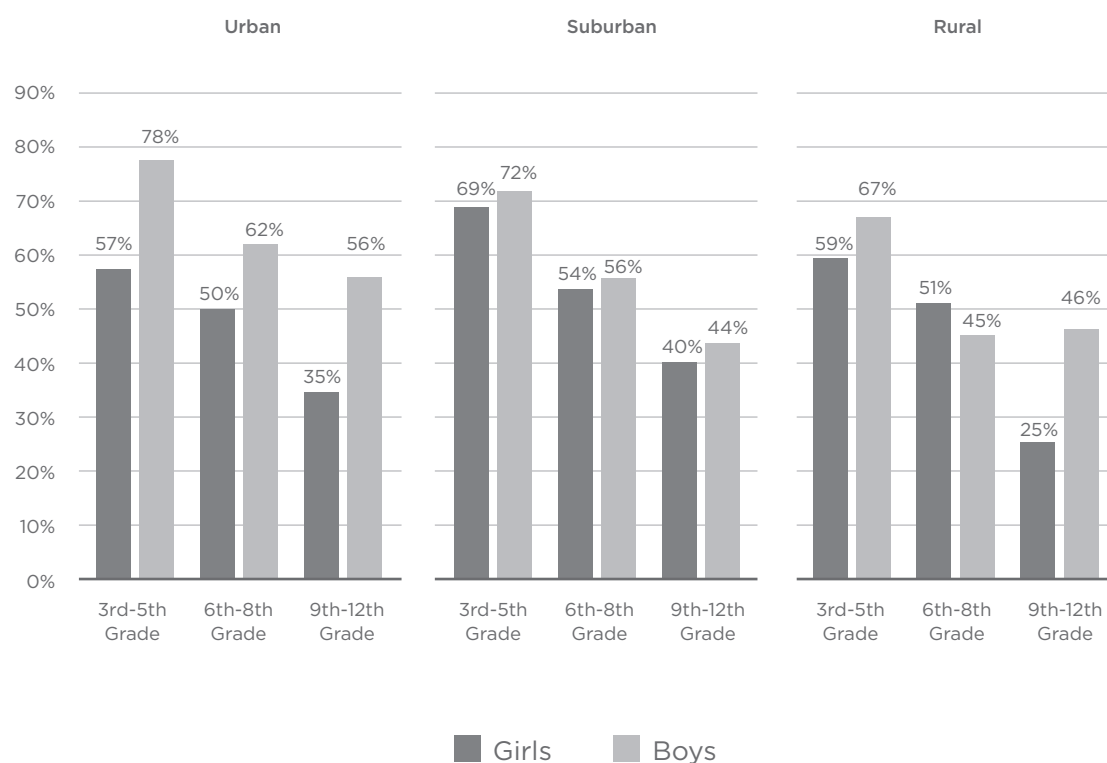
3rd-5th Grade: Chi-Square (1, 658) = 8.582**, $p < .01$.

6th-8th Grade: Chi-Square (1, 651) = .570, $p = .450$.

9th-12th Grade: Chi-Square (1, 836) = 8.482**, $p < .001$.

Marked gender differences in enjoyment of exercise existed in urban schools. See Table VIII-7. No statistically significant differences in enjoyment of exercise occurred in suburban schools and among third- to fifth-grade and sixth- to eighth-grade girls and boys in rural schools.

Table VIII-7: Enjoyment of Exercise, by Gender, Grade Level and School Location



Chi-Square test comparing gender and percent of students who really enjoy exercise, by grade, gender and school location.

Urban – 3rd-5th Grade: Chi-Square (1, 266) = 11.825***, $p < .001$; 6th-8th Grade: Chi-Square (1, 190) = 2.441, $p < .118$; 9th-12th Grade: Chi-Square (1, 160) = 7.053**, $p < .01$.

Suburban – 3rd-5th Grade: Chi-Square (1, 191) = .189, $p = .664$; 6th-8th Grade: Chi-Square (1, 337) = .177, $p = .647$; 9th-12th Grade: Chi-Square (1, 521) = .676, $p = .411$.

Rural – 3rd-5th Grade: Chi-Square (1, 201) = 1.246, $p = .264$; 6th-8th Grade: Chi-Square (1, 126) = .357, $p = .550$; 9th-12th Grade: Chi-Square (1, 153) = 7.198***, $p < .01$.

Parents Estimate Their Children's Interest in Sports

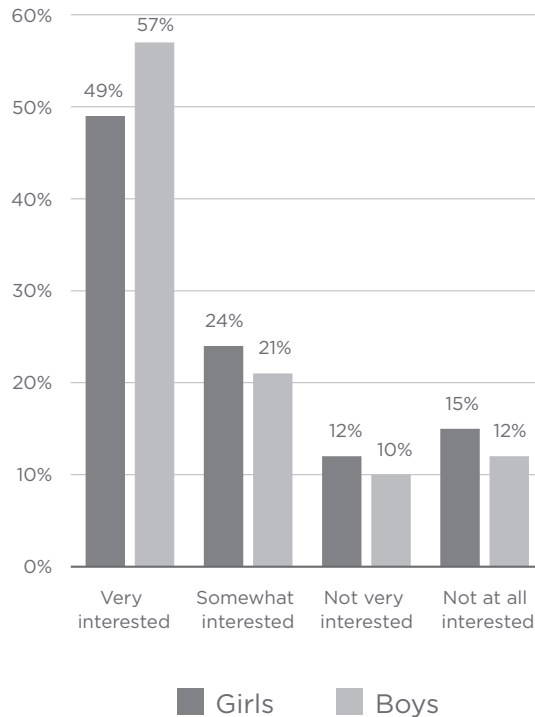
To paint a picture of all third- through 12th-grade girls' and boys' interest in sports with a single, broad brush proved to be misguided. The overall findings from the parent survey, for example, showed that 49% described their daughters as "very interested" in "playing organized or team sports" compared to 57% of sons. Yet these gender differences were not statistically significant. See Table VIII-8.

When broken down by grade levels, parents of third- through eighth-graders said that 61% of their sons and 55% of their daughters were "very interested" in sports, but, again, these differences were not statistically significant. Among ninth- through 12th-graders, in spite of a decline in interest in sports after the elementary and middle-school years, more sons (50%) than daughters (39%) were said to be "very interested" in sports. Yet, among high school students, more girls than boys were described as "somewhat interested" in sports (28% versus 23%, respectively). But these gender differences were also not statistically significant. See Table VIII-9 on following page.

Some statistically significant gender differences in interest in sports did surface, however, among third- to eighth-grade children in urban families. Examination of Table VIII-10 (on page 149) shows minimal differences between boys' and girls' interest in sports in suburban and rural families. Suburban parents described 55% of daughters and 62% of sons as "very interested," and among rural families, more daughters than sons were labeled "very interested" (66% and 58%, respectively). In contrast, only 40% of urban daughters were described as "very interested" in sports, compared to 63% sons. Note too that urban daughters comprised the highest percentage of children "not at all interested" (21% of urban, 6% of suburban and 19% of rural daughters).

The parent survey also confirmed that the level of many children's interest in sports declined as they

Table VIII-8: Parental Assessments of Their Children's Interest in Sports

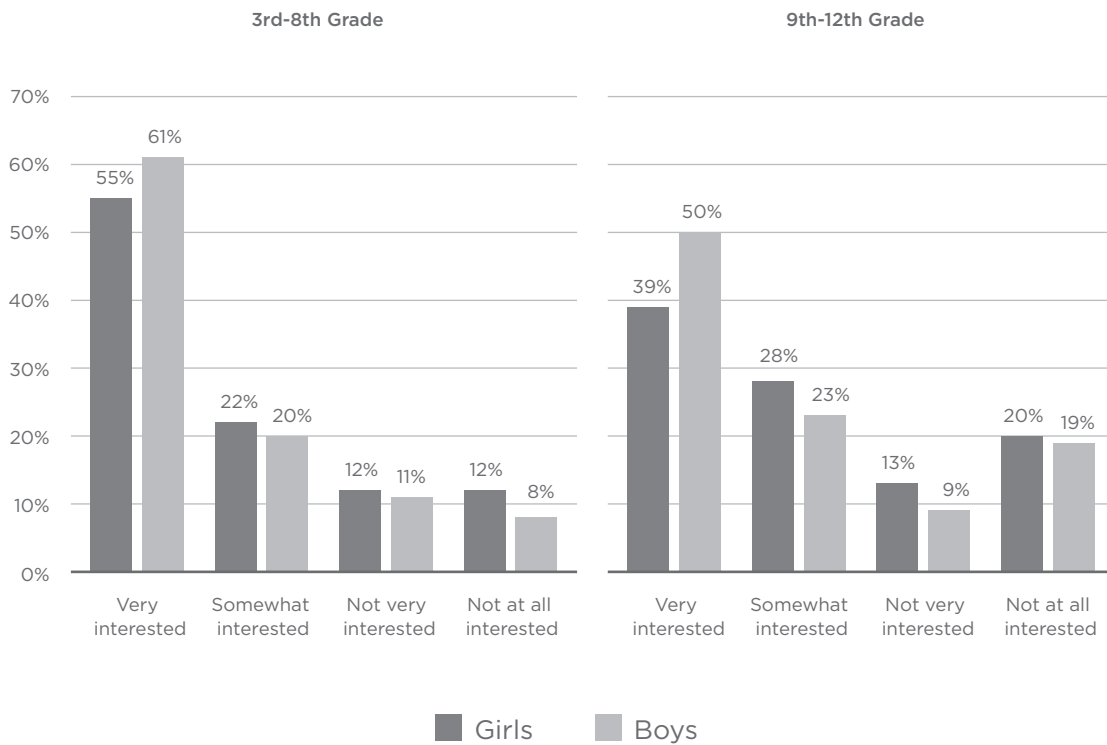


Chi-Square test comparing parental assessments of their children's interest in sports, by grade and gender.

Total: Chi-Square (3,862) = 6.190, $p = .103$.

got older. Compare Tables VIII-10 and VIII-11 (on page 150). Interest in sport among high school students did not disappear, but more accurately, it shifted to more moderate levels. Among girls "very interested" in sports as third- to eighth-graders, the most precipitous drop occurred later, during high school, among rural daughters (a 25% decline, from 66% to 41%) than among urban daughters (a 13% drop, from 40% to 27%). In urban families, the disparities

Table VIII-9: Parental Assessments of Their Children's Interest in Sports, by Grade Level



Chi-Square test comparing parental assessments of their children's interest in sports, by grade and gender.

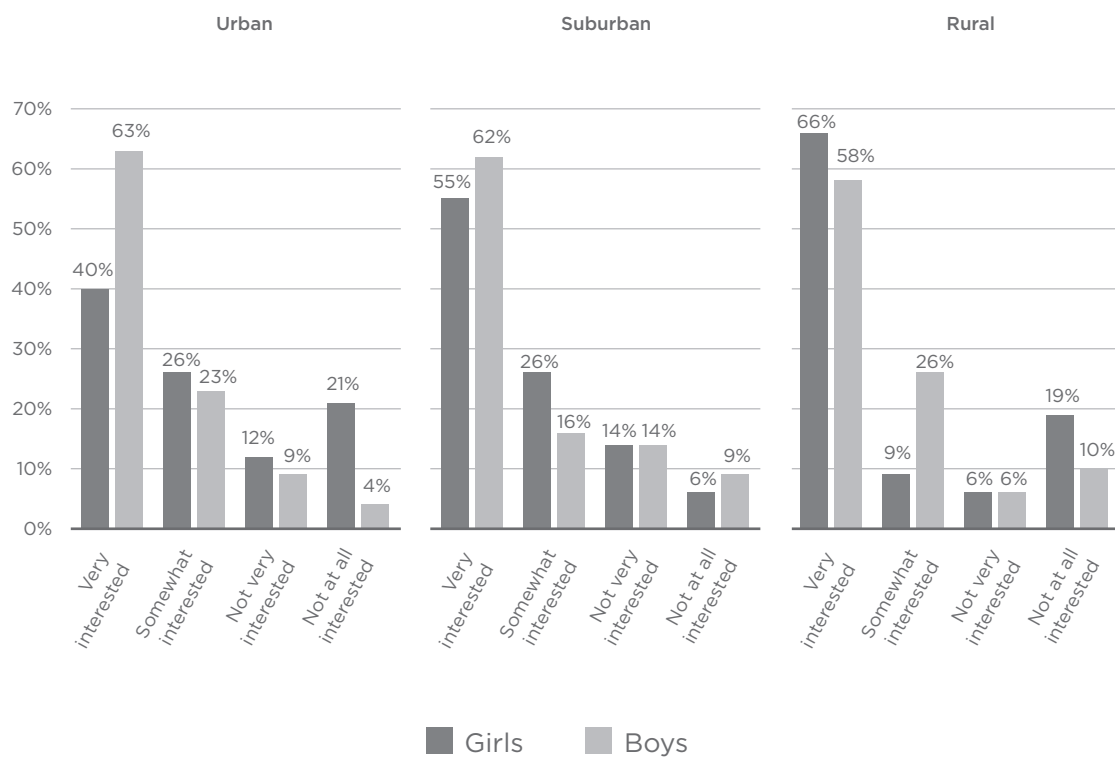
3rd-8th Grade: Chi-Square (3,532) = 3.814, $p = .282$; 9th-12th Grade: Chi-Square (3,329) = 4.036, $p = .258$.

between girls' and boys' athletic interest happened before high school, whereas rural girls exhibited a substantial decline (25%), compared to 12% among rural boys during the high school years. Finally, in suburban areas, there was a 10% decline among "very interested" youth for both girls and boys.

Race and Ethnicity

Parents' views of their daughters' and sons' levels of athletic interest varied across racial and ethnic groups. See Table VIII-12 on page 151. African-American, Hispanic and Asian parents felt their sons were more interested in sports than their daughters. No significant differences accrued among white parents.

Table VIII-10: Parental Assessments of Their Children's Interest in Sports,
by Gender and School Location (3rd-8th Grades)

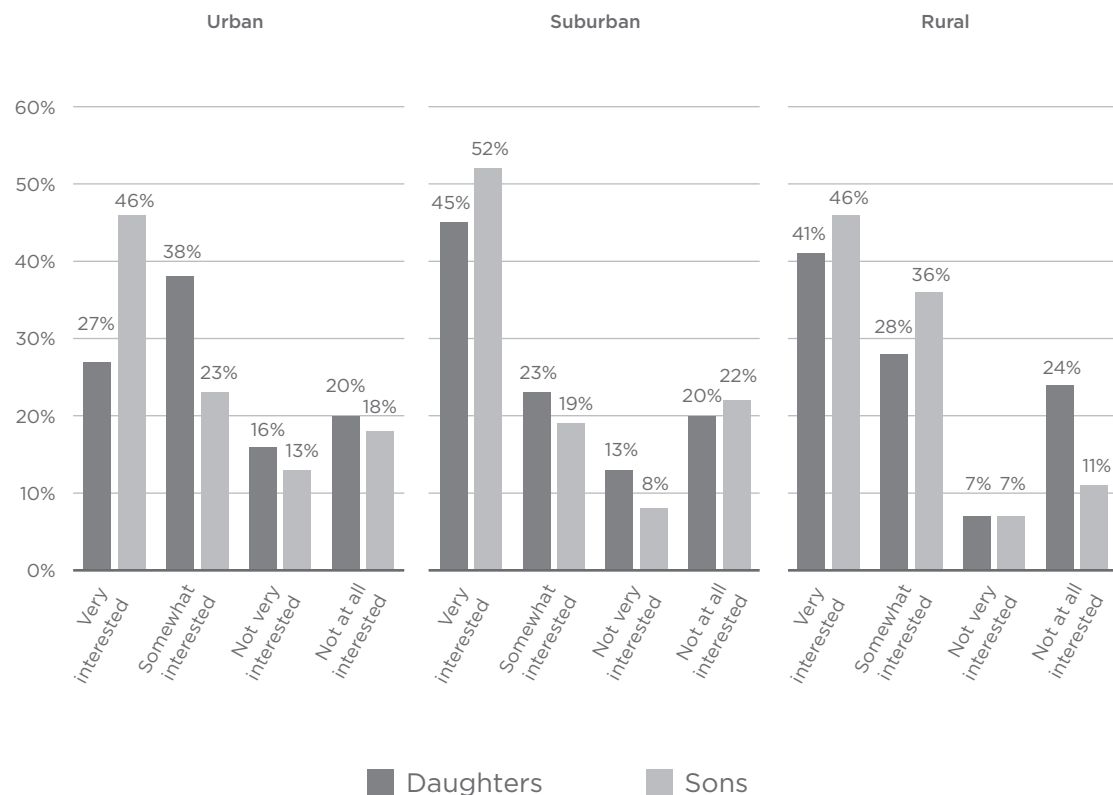


Chi-Square test comparing parental assessments of their children's interest in sports, by school location and gender.

Urban: Chi-Square (3,147) = 12.751**, $p = .01$; Suburban: Chi-Square (3,272) = 4.872, $p = .181$;

Rural: Chi-Square (3,114) = 6.361, $p = .095$.

Table VIII-11: Parental Assessments of Their Children's Interest in Sports,
by Gender and School Location (9th-12th Grades)

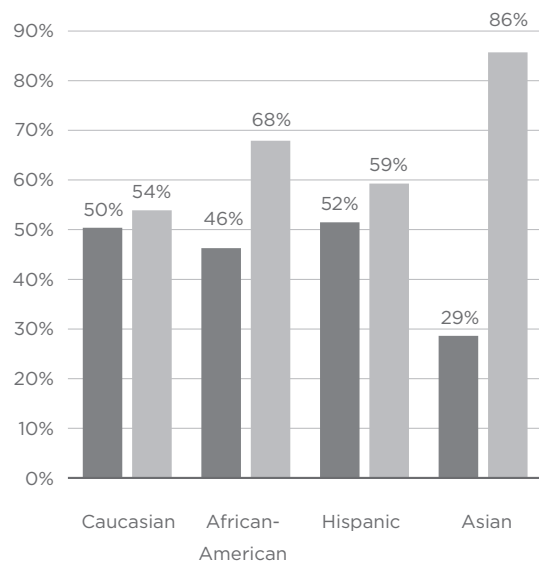


Chi-Square test comparing parental assessments of their children's interest in sports, by school location and gender.

Urban: Chi-Square (3, 84) = 3.836, $p = .280$; Suburban: Chi-Square (3, 186) = 2.052, $p = .562$;

Rural: Chi-Square (3, 57) = 1.845, $p = .605$.

Table VIII-12: Parental Assessments of Children Who Are Very Interested in Sports, by Gender, Race and Ethnicity



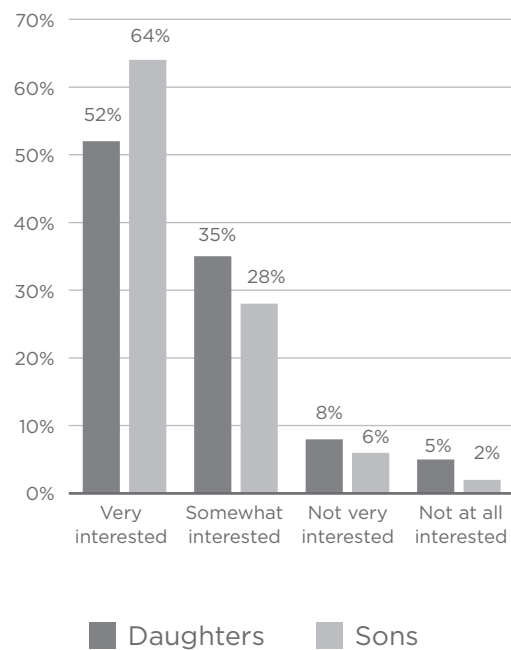
Chi-Square test comparing parental assessments of their children's interest in sports, by race and gender.

Caucasian: Chi-Square (1, 539) = .737, $p = .391$.
 African-American: Chi-Square (3, 108) = 5.544*, $p < .05$.
 Hispanic: Chi-Square (3, 158) = 1.146, $p = .284$.
 Asian: Chi-Square (3, 14) = 4.667*, $p < .05$.

Parents Assess Their Children's Interest in Exercise and Physical Activity

Parents were asked, "How interested is your child in exercising and physical activity?" Generally, more parents indicated that their sons were "very interested" in physical activity. In contrast, more parents said their daughters were "somewhat interested." See Table VIII-13.

Table VIII-13: Parental Assessments of Their Children's Interest in Exercise and Physical Activity



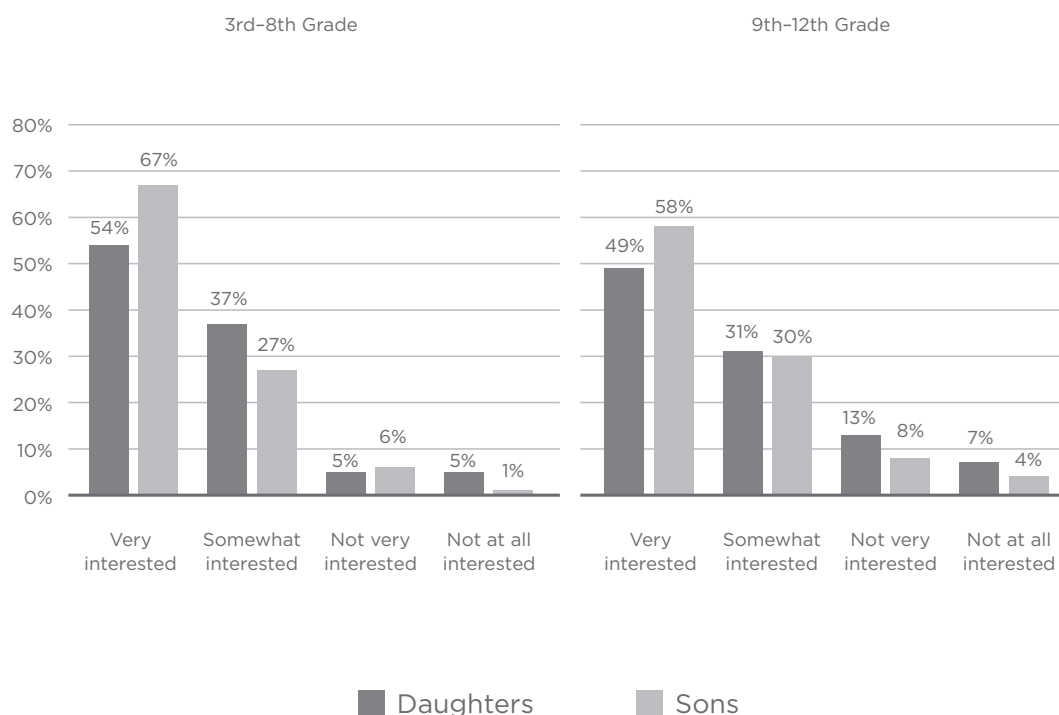
Chi-Square test comparing parental assessments of their children's interest in physical activity, by gender.

Total: Chi-Square (3,859) = 15.125**, $p < .01$.

When the sample was divided by grade level, however, significant gender differences issued among the third- to eighth-graders but not the ninth- to 12th-graders. See Table VIII-14. While “very interested” sons outnumbered daughters by 13% (67% and 54%, respectively), there were more “somewhat interested” daughters than sons (37% and 27%).

Further scrutiny revealed that much of the overall gender difference in interest in exercise and physical activity by grade level was owed to how interest varies across urban, suburban and rural areas. See Tables VIII-15 and VIII-16 on following pages. Put simply, gender differences were statistically significant mainly in urban communities. Significant

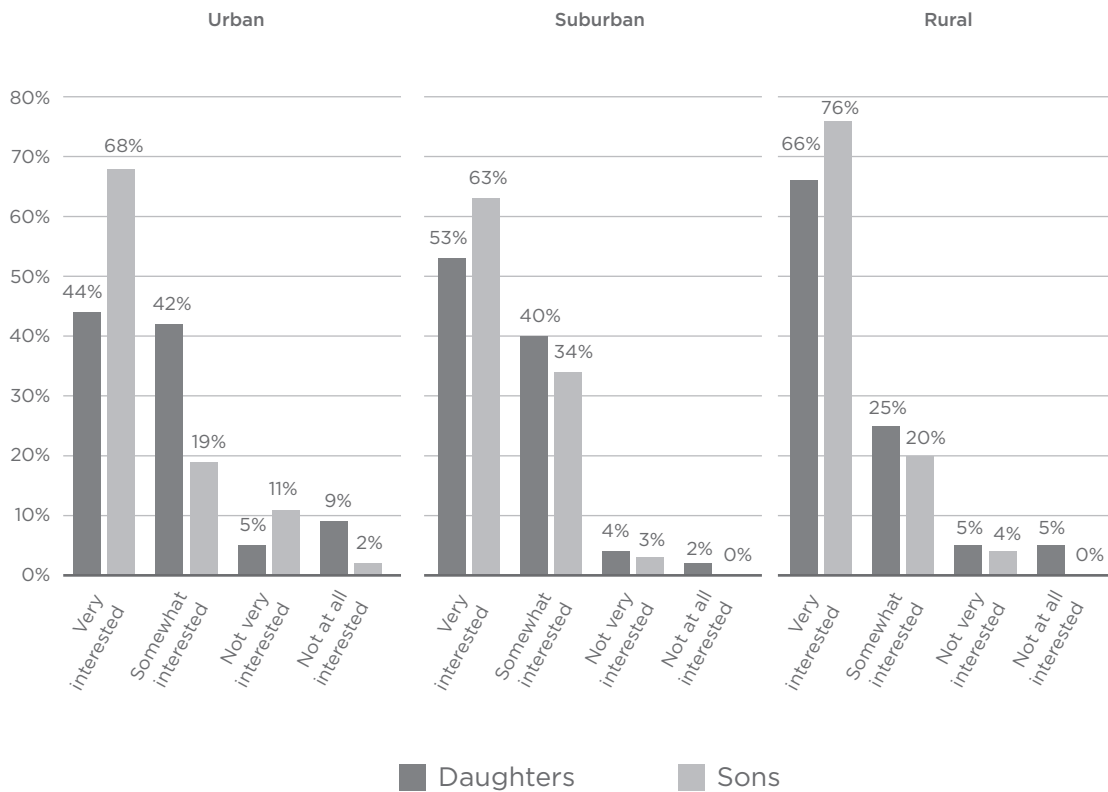
Table VIII-14: Parental Assessments of Their Children's Interest in Exercise and Physical Activity, by Grade Level



Chi-Square test comparing parental assessments of their children's interest in exercise and physical activity, by grade and gender.

3rd-8th Grade: Chi-Square (3,531) = 14.404***, $p < .01$; 9th-12th Grade: Chi-Square (3,329) = 4.617, $p = .202$.

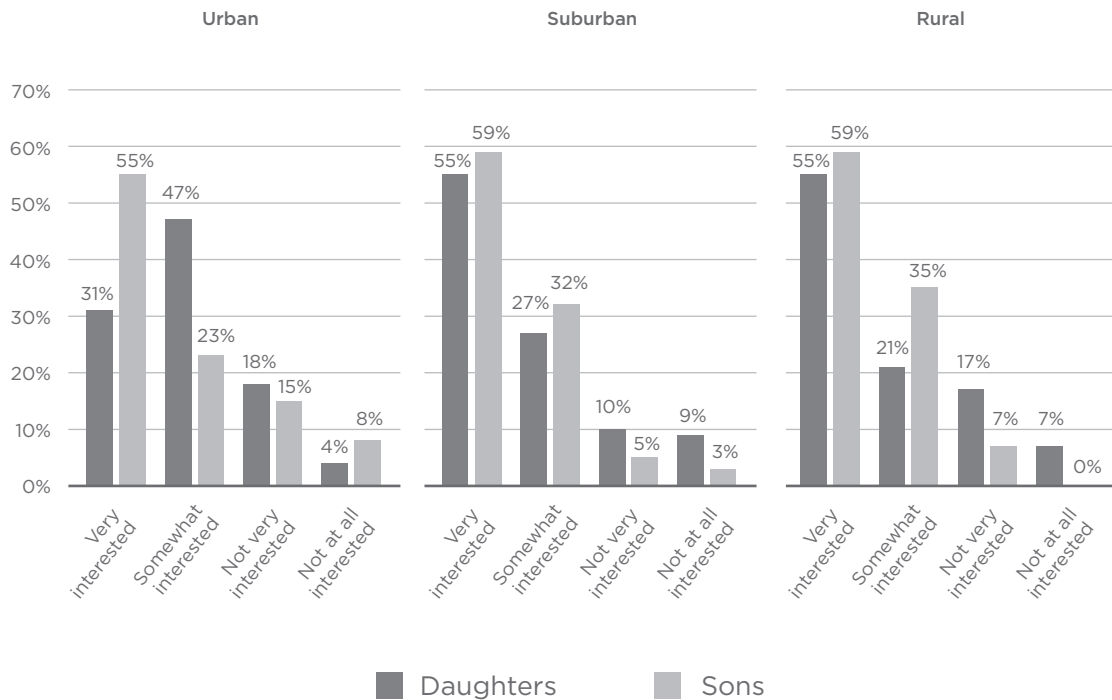
Table VIII-15: Parental Assessments of Their Children's Interest in Exercise and Physical Activity, by Gender and School Location (3rd-8th Grade)



Chi-Square test comparing parental assessments of their children's interest in physical activity and exercise, by school location and gender.

Urban: Chi-Square (3,148) = 14.965**, $p < .01$; Suburban: Chi-Square (3,270) = 5.113, $p = .164$;
Rural: Chi-Square (3,111) = 3.193, $p = .363$.

Table VIII-16: Parental Assessments of Their Children's Interest in Exercise and Physical Activity, by Gender and School Location (9th-12th Grade)



Chi-Square test comparing parental assessments of their children's interest in physical activity and exercise, by school location and gender.

Urban: Chi-Square (3,85) = 6.793, $p = .079$; Suburban: Chi-Square (3,187) = 3.949, $p = .267$;
Rural: Chi-Square (3,58) = 4.316, $p = .229$.

gender differences within suburban and rural communities as depicted did not issue. In contrast, 68% of third- to eighth-grade sons from urban areas were “very interested” in physical activity, compared with 44% of urban daughters. Although marginally significant by statistical standards, these differences were also apparent among urban ninth- to 12th-graders ($p < .079$).

Race and Ethnicity

Similar numbers of white parents described their daughters and sons as “highly interested” in exercise and physical activity. African-American, Hispanic and Asian parents were more likely to feel that their sons were highly interested in sports as compared to their daughters. See Table VIII-17.

The Importance of Sports in Children’s Lives

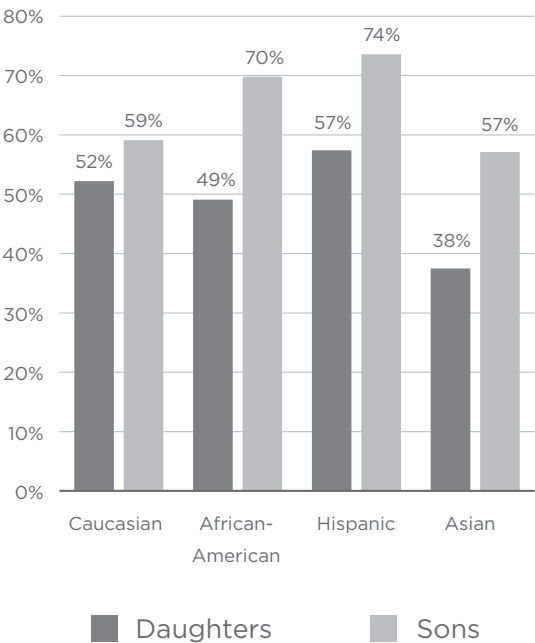
Most parents strongly agreed that “sports are an important part of my child’s life.” Parents of third- to eighth-grade kids, moreover, felt the same way about their daughters and sons. See Table VIII-18 on following page. Significantly more parents of high school athletes felt sports were more important for their sons than daughters.

Parents with low-median family incomes (\$35,000 and below) were much more likely to believe that sports are more important for their sons than daughters. No significant differences in parents’ views appeared for the higher income brackets. See Table VIII-19 on page 157.

Conclusion

There is a gender gap in children’s interest in sports and physical activity, but it varies by grade level, type of community, school location and income levels. The gender differences in athletic interest occur during the younger years and mainly among urban populations, to a lesser extent in rural areas, and hardly at all in suburban areas. One conclusion is that interest in sports varies a lot within genders but not so much across genders. When it does vary

Table VIII-17: Parental Assessments of Their Children’s Interest in Exercise and Physical Activity, by Gender, Race and Ethnicity

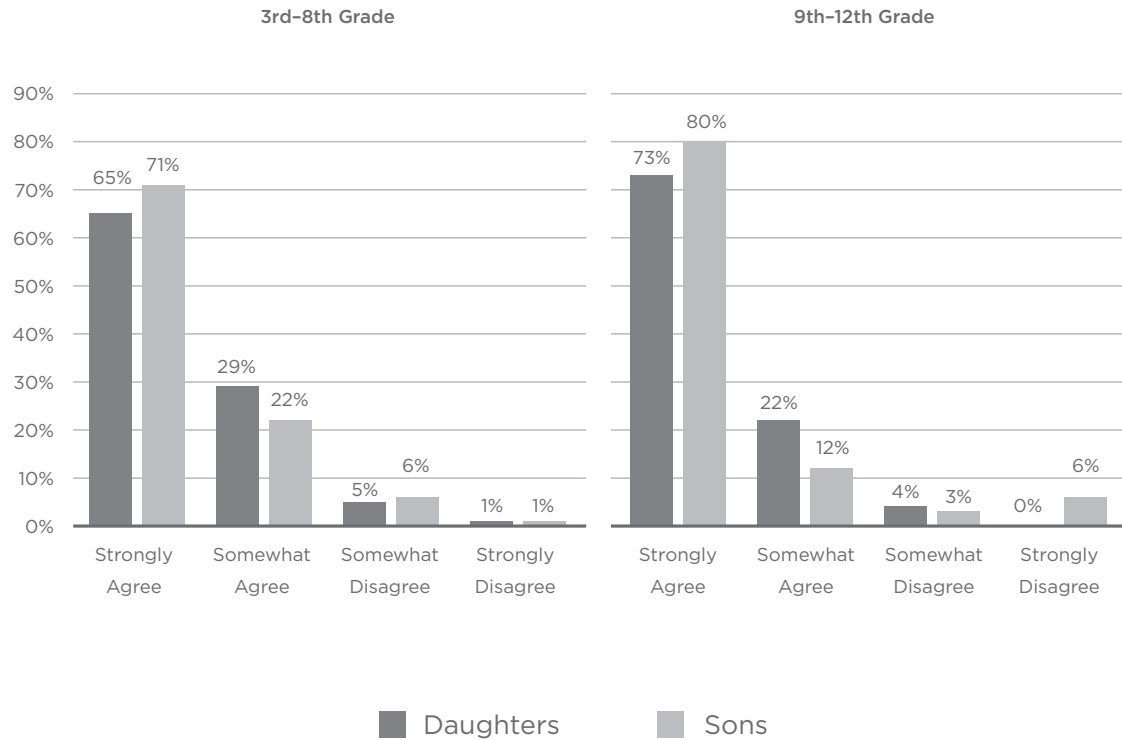


Chi-Square test comparing parental assessments of their children’s interest in exercise and physical activity, by race and gender.

Caucasian: Chi-Square (3, 537) = 2.596, $p = .107$.
 African-American: Chi-Square (3, 108) = 4.800*, $p < .05$.
 Hispanic: Chi-Square (3, 160) = 5.135*, $p < .05$.
 Asian: Chi-Square (3, 14) = .286, $p = .593$.

across genders, it happens primarily among younger girls (third to eighth grade) from urban communities and, secondarily, rural communities.

Table VIII-18: Parents Who Say Sports Are an Important Part of My Child's Life, by Gender and Grade Level



Chi-Square test comparing parental assessments of how important sports are in their child's life, by grade and gender.

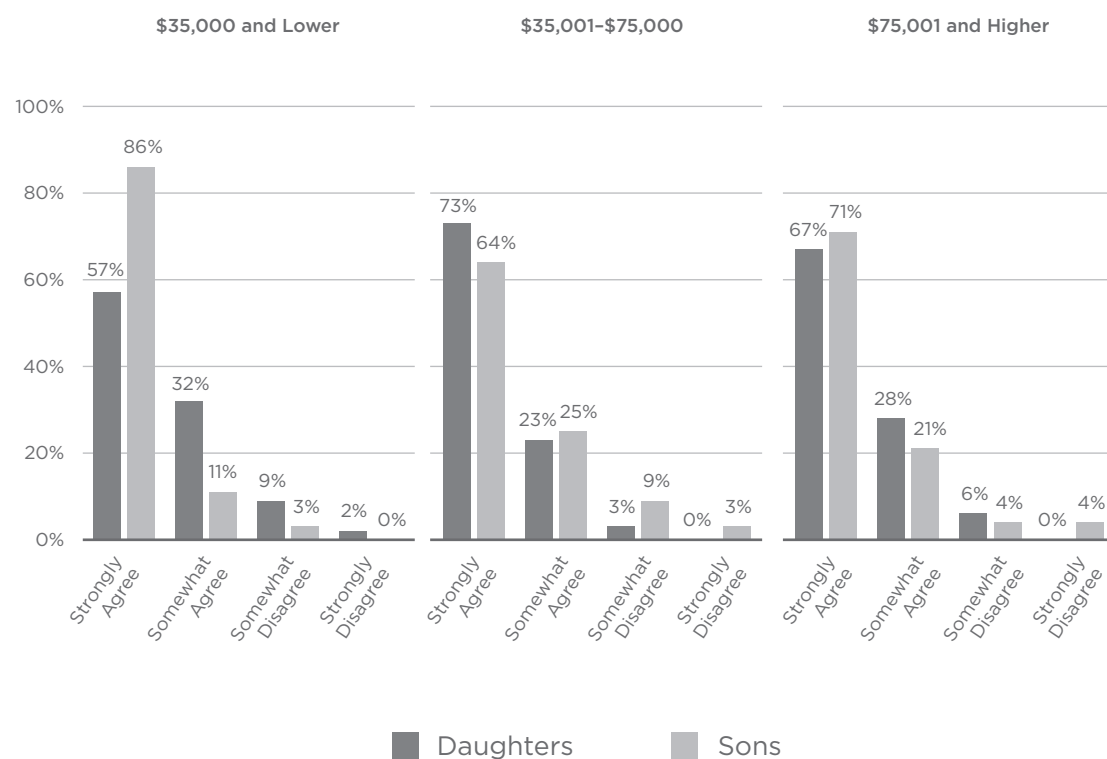
3rd-8th Grade: Chi-Square (3,380) = 2.331, $p = .507$; 9th-12th Grade: Chi-Square (3,197) = 9.325, $p < .05$.

The results belie traditional notions that “all boys” are more “naturally” interested in sports and physical activity than “all girls.” The fact that children’s interest levels vary by grade level, school location and family income undermines the argument that athletic interest is an inherently gendered trait or disposition. Girls’ and boys’ interest in sports is created and sustained more by opportunity than biology. Without available resources and support from schools, communities and

families, children’s athletic interests are less likely to grow. The findings strongly suggest that this nexus of support and opportunity is less available for urban girls than their suburban and rural counterparts.

The waning of interest in sports among high school students may be due to a variety of reasons. As children age, many develop other interests in the school, church or community. Teenagers often work

Table VIII-19: Parents Who Say Sports Are an Important Part of My Child's Life,
by Gender and Family Income



Chi-Square test comparing parental assessments of how important sports are in their child's life,
by grade and family income.

\$35,000 and Lower: Chi-Square (3,107) = 11.639**, $p < .01$; **\$35,001-\$75,000:** Chi-Square (3,184) = 5.565, $p = .135$;
\$75,001 and Higher: Chi-Square (3,237) = 5.738, $p = .125$.

after school or during summers. Others follow the interests of friends. As we saw in Section VI, many young people downsize their involvement with sports as they move through high school.

Finally, there appear to be many reasons why boys generally invest more of their interest and identity in sports than girls. More boys construct their identities through sports whether they actually play sports or not. Many female athletes diversify their interests and are involved with more clubs and groups at school than male athletes. It also makes sense that many boys still buy into cultural beliefs and media portrayals of sports as an expression of masculine adequacy. Being “into” sports reaps popularity gains for boys—even boys who do not actually play sports. There are also racial and ethnic dynamics at play. More research is needed to explain how it is that white and Hispanic girls and boys, particularly those from more affluent communities, display similar levels of interest in sports, while the interest levels of African-American and Asian girls fall below their male counterparts.

Part IX: Two Understudied Populations

The Women's Sports Foundation's *Go Out and Play: Youth Sports in America* study was designed to establish current and relevant baseline data that systematically monitor the progress of sports and physical activity participation of girls and boys. Two large groups of children have been especially ignored by previous researchers and policy makers in terms of sports and physical activity—children in immigrant families and children with physical limitations and disabilities. Some findings below are limited by small sample sizes and challenges associated with measuring immigration status or the type and extent of physical disabilities among children. The findings should be considered an initial step toward future research and better understanding of these neglected areas where sports, exercise and public health are merging.

Children in Immigrant Families

Most researchers on immigration tend to focus on adults.⁴⁵ Very little is known about sports and physical activity within immigrant families.⁴⁶ Foreign-born individuals comprised 12.4% of the U.S. household population in 2005, i.e., 35,769,603 of the total 288,398,819.⁴⁷ The general public's views of immigrants are often clouded by stereotypes and concerns about illegal entry. Among families headed by an illegal resident, an estimated 3.1 million children were born in the United States.⁴⁸

An "immigrant family" was defined as a family in which at least one parent was born outside the United States. The telephone interviewers asked parents if they and their spouse were "born in the United States or another country." Their responses indicated that 14.1% of parents lived in immigrant families. On the school surveys, 23% of students indicated that one or both parents were born outside the United States. The parent survey results revealed that income was distributed across low, middle and high brackets and, generally, compared with non-immigrant families. See Table IX-1. Family income among immigrant families was diverse, ranging from poor Mexican labor

Table IX-1: Family Income and Immigration Status



Chi-Square test comparing family income and immigration status of family.

Immigrant (n = 86); Non-Immigrant (n = 696)
Chi-Square (2, 782) = 1.242, p = .537.

immigrants to professional and entrepreneurial-class immigrants from countries around the world.

Involvement with Sports

A slightly higher percentage of fathers in non-immigrant families were formerly involved with organized and team sports (81% compared with 71% of immigrant fathers). See Table IX-2 on following page. Mothers were much less likely to have played sports than fathers. Similar percentages of non-

immigrant and immigrant mothers had been involved with sports (51% and 44%).

Sons in immigrant families mirrored the high athletic participation rates of their fathers, whereas daughters reported lower rates of involvement with sport (75% versus 43%). See Table IX-3 on following page. Fewer daughters than sons in both non-immigrant and immigrant families played sports. In summary, a wide gender gap in athletic participation existed within immigrant families.

Parents' Attitudes Toward Girls and Boys in Sports

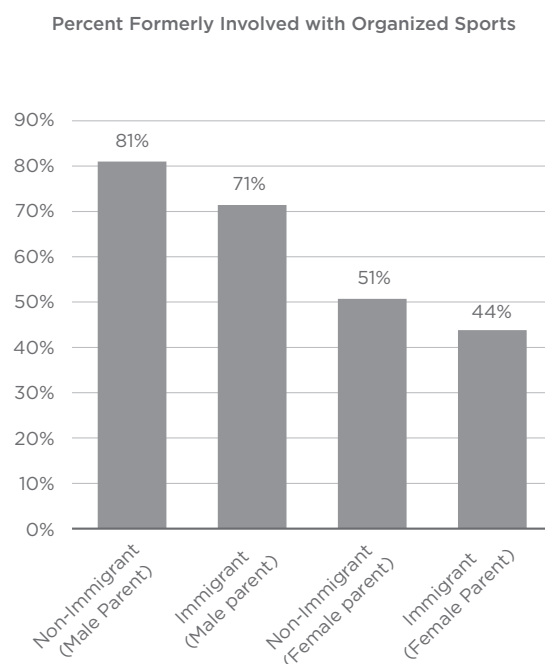
The popular British film "Bend It Like Beckham" tells the story of an athletically gifted daughter of an Indian immigrant father from Uganda who lives in a London suburb. Her passion for soccer runs against her parents' stereotypical beliefs about femininity. In the end, however, she plays the big game, and her father and mother finally accept their daughter's athleticism. Do parents in U.S. immigrant families harbor traditional attitudes toward girls in sport?

When it comes to sport, immigrant parents held more traditional attitudes toward their daughters than their sons. While 60% of immigrant mothers agreed that "boys are more interested in sports than girls," 35% of non-immigrant parents did so. More fathers in immigrant families than in non-immigrant families held traditional attitudes. See Table IX-4 on following page. It is noteworthy that only 35% of mothers in non-immigrant families felt boys had more athletic interest than girls. See Table IX-4 on following page.

Children with Disabilities

About nine out of every 100 families have a child with a disability that can interfere with access to sports and exercise. Seventy-eight out of 863 parents said that they have a child with "a health problem or disability that keeps her/him from doing sports or other physical activities." Due to the small size of this subsample, caution should be used when interpreting the results.

Table IX-2: Parents' Former Involvement with Organized Team Sports, by Immigration Status



Chi-Square test comparing immigration status of respondent and former involvement with organized sports.

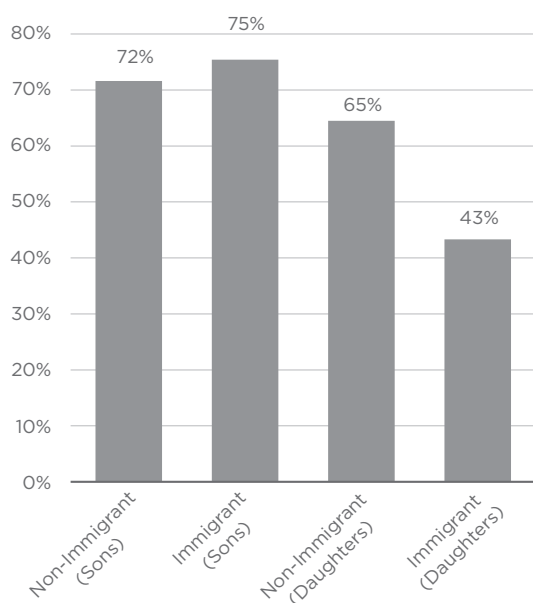
Female Parent: Chi-Square (1, 476) = .834, $p = .361$.

Male parent: Chi-Square (1, 387) = 2.074, $p = .150$.

Female Immigrant ($n = 48$) and Male Immigrants ($n = 42$).

Thirty-eight percent of these parents said their communities and school did not offer sports or exercise programs for children with disabilities. Another 31% said that programs for children with disabilities did exist. See Table IX-5 on page 162. About one-third did not know if such sports programs were available.

Table IX-3: Children's Involvement with Organized or Team Sports, by Gender and Immigration Status



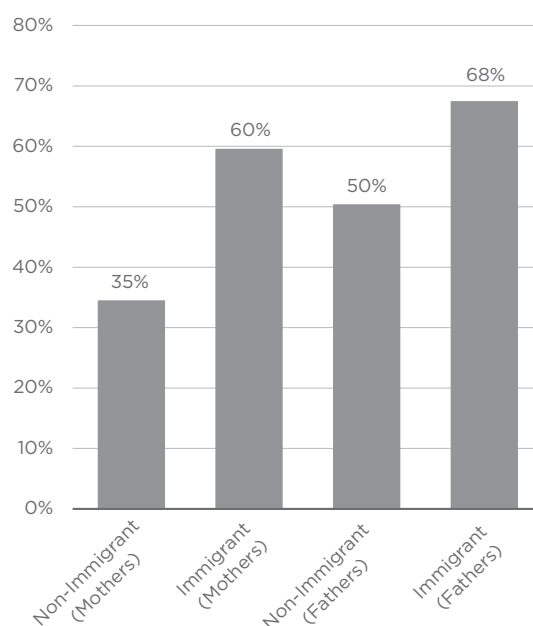
Chi-Square test comparing immigration status of respondent and involvement with organized sports.

Daughters: Chi-Square (1, 421) = 5.327*, $p < .05$.

Sons: Chi-Square (1, 434) = .359, $p = .549$.

Immigrant daughters ($n = 30$) and Immigrant sons ($n = 57$).

Table IX-4: Percentage of Parents Who Agree that Boys Are More Interested in Sports than Girls, by Gender and Immigration Status

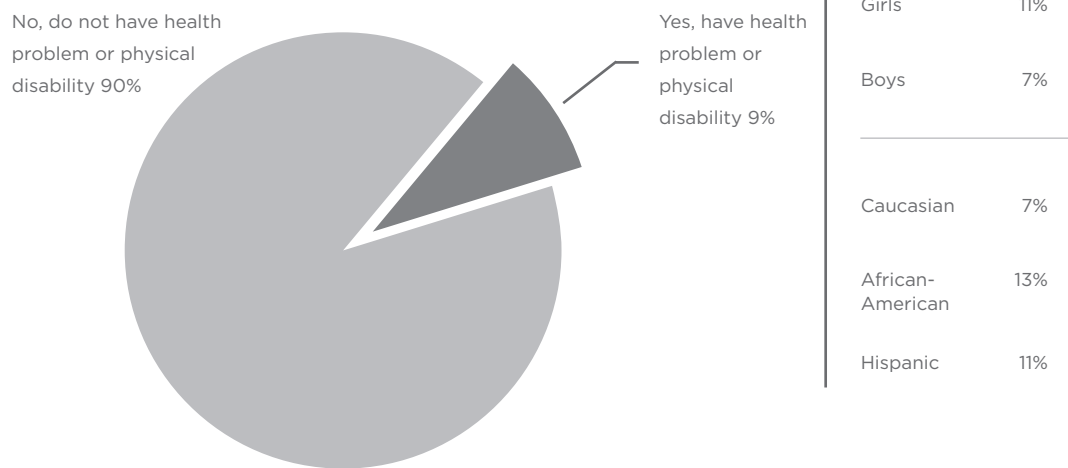


Chi-Square test comparing immigration status of respondent and percent who agree that boys are more interested in sports than girls.

Mothers: Chi-Square (1, 379) = 4.172*, $p < .05$.

Fathers: Chi-Square (1, 434) = 11.393***, $p = .001$.

Table IX-5: Self-Reported Physical Disability that Prevents Participation in Sports and Physical Activity



[Base: Total (n = 2185); Girls (n = 1125); Boys (n = 1045); Caucasian (n = 1143); African-American (n = 387); Hispanic (n = 380)]

When sports and exercise programs for children with disabilities were offered by schools and communities, half of parents said their children participated and half said they did not. And when programs were unavailable, 71% of parents said that their child would be either “very” or “somewhat” likely to participate. See Table IX-6 on following page.

Children’s Involvement with Sports and Exercise

In the student surveys, 9% of children self-reported they had a “health problem or handicap that stops them from doing sports or other physical activities” (11% of girls and 7% of boys, total N = 197). A gender gap in sports and exercise activity existed among physically challenged U.S. children, but it was the

boys who were less physically active in sports and exercise than the girls.

First, more boys with disabilities than their female counterparts did not play any sport during the past year (38% versus 29%). See Table IX-7 on following page. Similar to children without disabilities, most girls with disabilities were moderately involved with sports (59% of girls and 40% of boys).

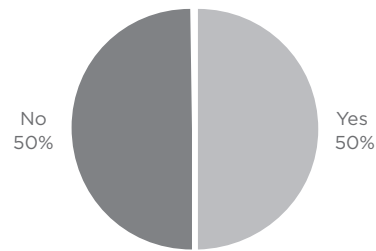
Second, girls with disabilities exercised more frequently than boys with disabilities. As Table IX-8 (on page 165) depicts, girls with disabilities on average exercised as often as the general population without disabilities (4.3 days per week). In contrast, boys with disabilities averaged 3.76 days per week—

Table IX-6: Parents' Views of Resources for Their Children with Physical Disabilities

Does your community/school offer sports/exercise program for children with special health needs?

Child w/ health need or disability (n = 78)	%
Special sports program offered	31
Special sports program not offered	38
Don't know	31

Does your child with health problems participate in any of these programs? (n = 23*)



If your school or community offered such a program, how likely is it that your child would participate? (n = 55)



Table IX-7: Percent of Students Who Indicated Having a Health Problem or Physical Disability that Stops Them from Doing Sports or Other Physical Activities, by Athletic Involvement

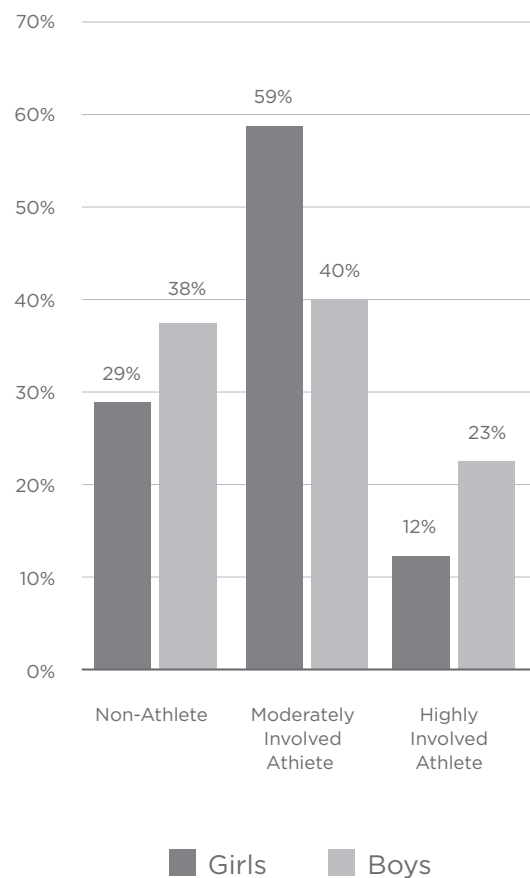
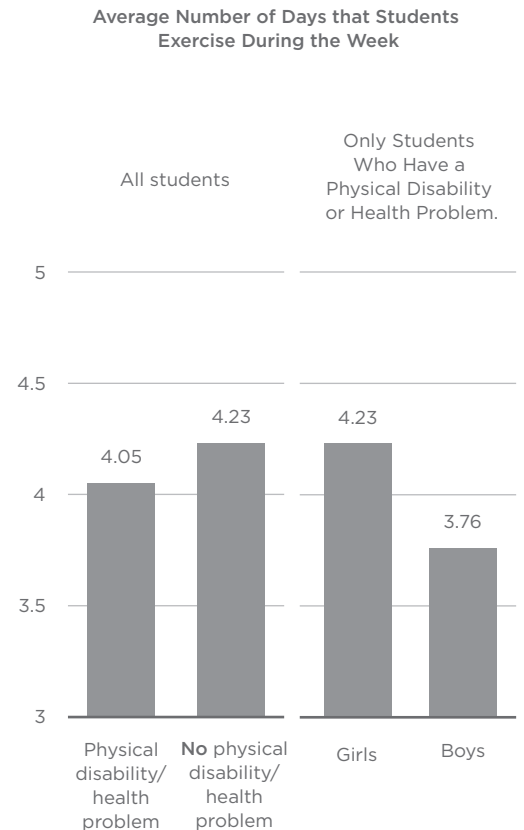


Table IX-8: Physical Disability or Health Problem and Exercise Frequency



substantially lower than their female counterparts and the general population of students without disabilities.

A worrisome trend emerged when the exercise frequencies of children with disabilities were tracked across grade levels. Exercise frequency took a steep downturn for both high school girls and boys with disabilities. See Figure IX-9. The decline was not as great for high school students without disabilities.

Finally, despite the fact that boys with disabilities were less actively involved with sports and exercise than their female counterparts, the boys were more

likely to be interested in playing sports than girls. See Table IX-10 on following page. Among children with disabilities, 62% of boys had a high interest in playing sports, compared to 40% of the girls.

What might explain this inconsistency between interest and behavior among boys? On one hand, it is culturally appropriate for boys to express their interest in sports. And girls also have a wider array of social interests than boys do. (See Section V of this report.) So boys may inflate interest in sports, while, among girls, sports are one of a wider array of pursuits rather than a main or sole interest. Another explanation could be that many existing boys'

Table IX-9: Physical Disability or Health Problem and Exercise Frequency, by Gender and Grade Level

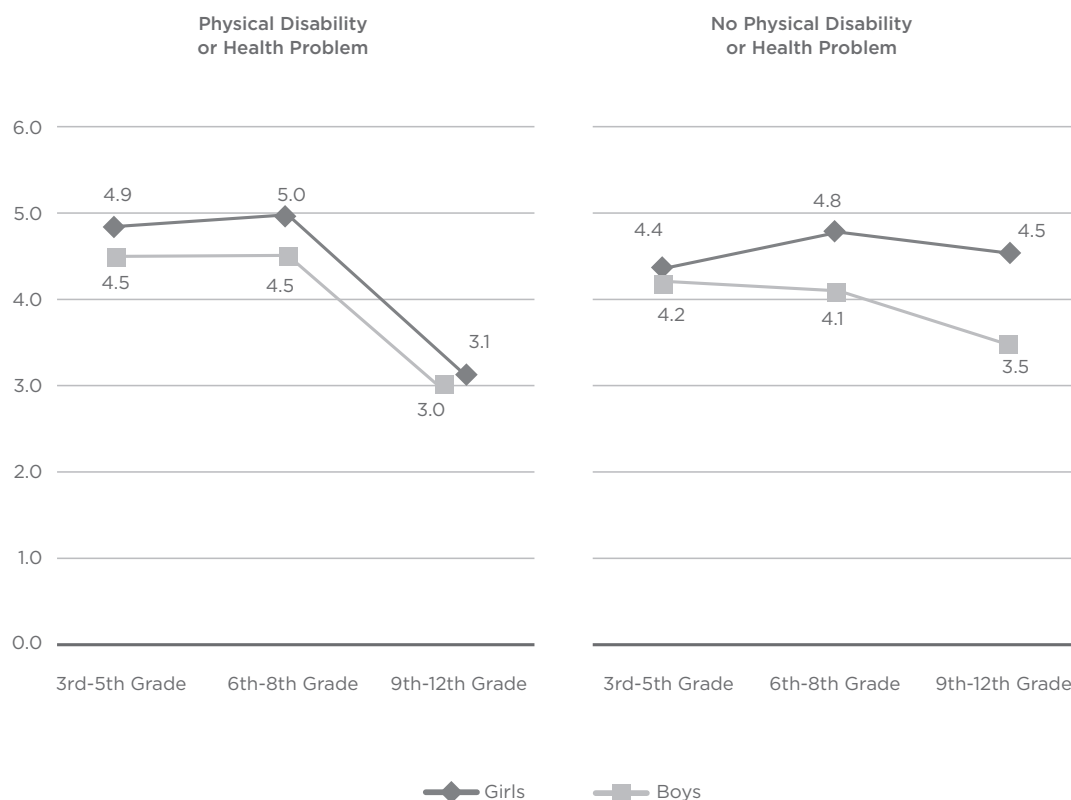
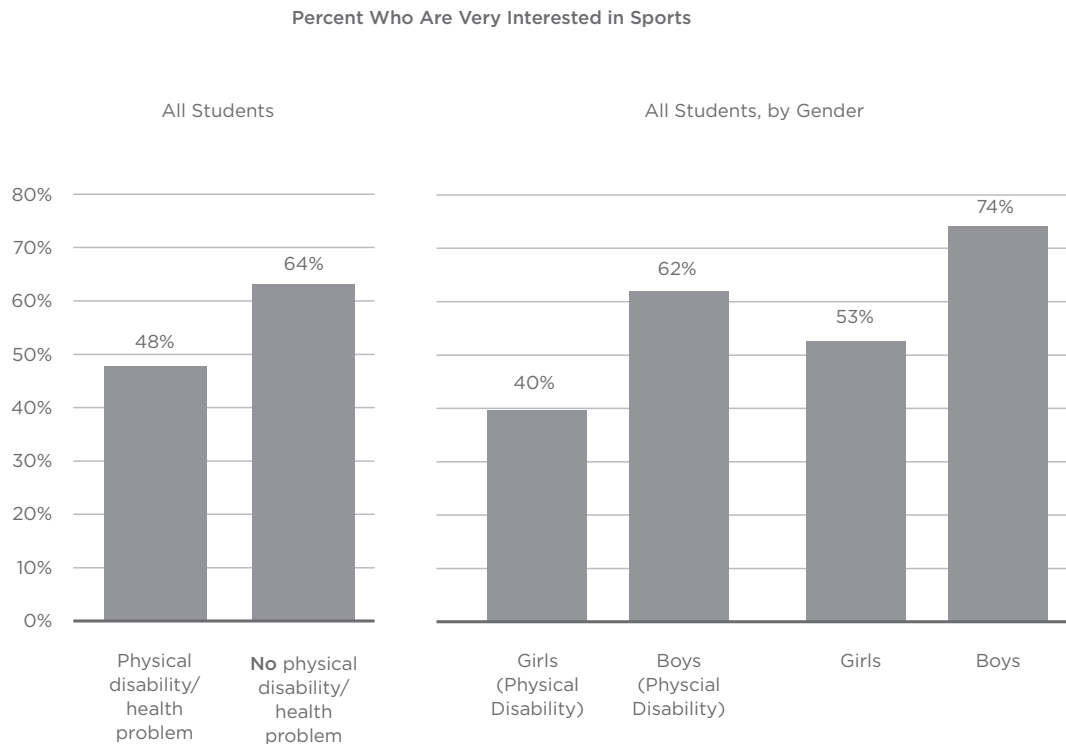


Table IX-10: Health Problem or Physical Disability and High Interest in Playing Sports, by Gender



sports and exercise programs emphasize physical combat and competition, which, in effect, put boys with physical disabilities at a disadvantage. They might also be more likely to be cut from teams by coaches. Hence, boys' interest in sports may outpace their access to user-friendly programs. In contrast, many programs for girls (particularly younger girls) are more inviting and inclusive, and perhaps not as competitive as boys' programs.

Conclusion

These results raise more questions than they provide answers. The reality is that nationally scaled research on sports and physical activity among immigrant children and children with disabilities is minimal.

Sports and exercise can enhance the lives of millions of children from immigrant families as well as children with disabilities, but recognition and understanding need to catch up with the realities.

The evidence shows that significant numbers of children from immigrant families are involved with sports and exercise. Their interest is palpable, but for reasons we do not understand, girls lag behind boys in participation. It might also be that, for many immigrant parents, sports are still deemed less appropriate for their daughters than for their sons. Time will tell whether changing gender expectations will mesh with greater participation opportunities for girls in immigrant families.

The findings belie stereotypical images of children with disabilities leading sedentary lives and being disinterested in sports. Substantial numbers of children with disabilities do participate in sports and exercise, and many of their parents take advantage of special school or community programs when they are available. Meanwhile, other parents say more sports and exercise opportunities are needed for their children with disabilities, but it also appears that more boys than girls are being left out the action. Both girls and boys with disabilities want and deserve greater access to physical activity.

X. Conclusion and Policy Recommendations

There is no single source of reliable data that can guide policy debates and planning in sport, education and public health. Current scientific research is consistently requested of the Women's Sports Foundation by the American public, media, prospective funding sources, governmental agencies and girl-serving organizations. This nationwide study of athletic participation and physical activity among girls and boys was undertaken to meet these information needs. Consonant with this goal, this project was also designed to provide an evidence-based foundation for public debate and policy development.

This study points to a formidable challenge to get more girls involved with physical activity and sports. Girls' athletic participation has gone up since Title IX, but not all girls are benefiting equally. In many communities, girls lag behind boys in exercise frequency and athletic participation. Much of the gender gap in sports and physical activity is rooted in wider economic inequalities, which, in turn, can erode or elevate the capacity of families, schools and communities to provide equal opportunities for all children to engage in exercise and sports. The convergence of the gender gap and wealth gap is particularly salient in U.S. cities, where the rate of physical activity among urban girls lags well behind their male counterparts. Girls in rural communities also often lack similar access to sports and exercise programs as boys. The greater parity between girls' and boys' involvement with sports in suburban communities not only shows that progress toward gender equity in sports and physical activity has been made but that it can be made.

Children's interest and engagement in sports and physical activity are either promoted or held back by the amount of opportunities that flow through their families, the schools they attend and the communities in which they dwell. Just as the proverbial village raises the child, it takes an orchestrated social commitment to inspire and produce a physically

active and athletic child. Many results presented here show that sports favorably influence children's educational, physiological and emotional development. But healthful youth development through sports cannot flourish without the cultural commitment and involvement of families, schools and communities.

This research report provides parents, educators, sports leaders, health advocates and public officials with facts and analysis that can further understanding of how to tap the real and potential power of sports to enhance the lives of U.S. girls and boys. A group of nationally recognized leaders from government, education, academia and sport were invited to review an earlier copy of this report and to recommend guidelines for future planning and action. We gratefully acknowledge their insights and expertise.

1. Provide Young Girls with the Tools to Succeed at Sport

Girls enter sports later in childhood than boys. Urban girls generally participate in sports about two years less than their rural and suburban counterparts; i.e., they enter sports later in girlhood and drop out sooner. Late entry into sport likely hinders the development of basic physical skills and cultural values that may be setting girls up for failure and drop-out during the middle school years. The actions below can help recruit, retain and train girls more effectively.

- The creation of more girl-centered sports and exercise programs that emphasize "fun and friendships" may help schools, communities and church leagues successfully recruit and retain girls of elementary school age.
- Middle schools might devise ways to identify and engage girls with histories of late entry into sport in order to ease their transition into sports during the sixth to eighth grades. The "newcomers" may benefit from remedial training in basic exercise and skills development.

- Coaches can identify and work more closely with children to help them develop fundamental physical skills that can, in turn, foster successful development in relation to exercise and athletics. Communities and school districts can provide coach education programs in order to raise awareness or girls' unique interests and developmental needs with regard to sport.
- An emphasis on fun and fundamentals may help hold girls' attention and personal commitments to physical activity throughout the middle-school period, when a surge in sport drop-out occurs (especially among urban girls).
- Similar interventions are likely to help those boys who may display late interest and entry in sport.

2. Help Families Tap the Resource of Sports

Families can gain from their children's involvement with sports, regardless of family type, income levels and differences in race and ethnicity. The synergies between sport and family well-being can be enhanced in these ways.

- Family-school partnerships should be created that promise to enhance children's involvement with community-based and school sports programs.⁴⁹
- Because poor families and single-parent families often do not have adequate social and economic resources to facilitate their children's sports involvement, voucher programs and scholarship incentives can be instituted to increase participation opportunities.
- School and community sport leaders can also reach out to single parents through educational interventions and orientation programs that welcome daughters and sons into organized teams.
- Appropriate and culturally sensitive arrangements can be made to assuage parental concerns about program safety and responsible supervision of daughters.

3. Capitalize on School-Based and After-School Physical Education

School administrators and public officials should work to redress the deficiencies in physical education that are affecting girls, particularly girls in urban schools. Many school-based physical education and after-school activity programs are being underutilized by girls.

- Nationally and regionally scaled steps should be taken to counteract the downturn in physical education attendance among high school girls.
- Local, state, and federal health planners need to further invest in physical education and youth sports as key elements of preventive health policy.
- Guidelines and practices should be developed to close the gap in physical education between girls and boys, girls of color and Caucasians, and schools in poor communities and more affluent communities.
- School boards can reverse the cuts in PE offerings, make PE mandatory, and broaden the curriculum to appeal to the wide range of girls' interests in exercise and physical activities.
- Increasing opportunities for exercise in PE classes are also likely to be a highly effective mechanism for infusing exercise into the lives of children who do not like sports.
- School officials can seek grants to initiate, expand, and improve their physical education programs for K-12 students through the Carol M. White Physical Education Program (PEP). For information on how to apply, visit www.ed.gov
- Schools and communities can seek information and resources in order to enhance their existing health and physical education programs. For example, see www.pe4life.org

4. Address Girls' Wider Interests in Sports and Exercise Activities

U.S. girls, especially girls in third to eighth grades, are interested in a more varied array of sports and exercise activities than boys. And yet many schools and community programs continue to offer traditional physical activities and sports options, which, often, have greater appeal for young boys than girls. Some steps to provide more appealing opportunities follow.

- In addition to traditional sport offerings, state high school associations can develop innovative sports and physical activity programs that appeal to increasing numbers of girls.
- School and community leaders should broaden the concept of sports and physical activity in order to recruit and meet the needs and interests of more diverse groups; e.g., preteen girls, immigrants and children with disabilities.
- Local governments should subsidize nontraditional community sports and physical activities. The inclusion of emerging and recreational activities may foster greater physical activity and protracted involvement through later childhood and adolescence.

5. Close the Gender Gap in Sports and Physical Activity

The playing fields of youth sports and physical activity have changed with regard to gender, but they have yet to be leveled. Steps in this direction include the following.

- Parent-teacher associations, school officials, business leaders and community members should promote public education around girls' participation in sports and physical activity.
- The extent of gender equity within sports and physical activity programs within schools, communities and after-school programs should be actively evaluated.

- Policy discussions and planning should aim at providing equal opportunities and treatment for girls, a requirement of Title IX, a federal gender equity law.
- More public education about the social, educational, physiological, and epidemiological contributions of girls' sports participation needs to be done.
- Family-school partnerships should be developed that speak up for girls' involvement with sports and exercise.

6. Counteract the Negative Impacts of Economic Disparities on Children's Development through Sports

This report documents a variety of ways that reduced economic resources in communities and families negatively erode children's chances to develop personal and social well-being through sport.

- The steady growth of "pay to play" sports programs in many schools and communities threatens to further reduce participation among children from poorer families—the very children for whom athletic participation rates are already lower than their more economically privileged peers. Policies should be put in place that help less affluent families and their aspiring athletes to fully participate in school and community programs.
- Corporations and non-profit organizations should continue to work with schools and communities in order to support the provision of sports and physical activity programs for children.
- More community service organizations might develop scholarship funds and other financial supports that facilitate greater participation among economically marginalized children.
- Professionals within institutions of higher learning can develop "town-gown" partnerships or collaborations that seek to enhance poorer children's access to sport and physical activity

programs; e.g., provide coaching resources, allow community access to athletic and training facilities, and set up mentoring programs between college athletes and young athletes.

7. Empower Children with Disabilities

Nine percent of American families have a child with a disability who may have limited opportunities to engage in sports or other physical activities. Many parents in these families desire greater physical activity opportunities for their children.

- Much more research is needed to assess the interests and opportunities of pre-teen and teenage children with disabilities.
- School administrations, parent-teacher associations, and community leaders can evaluate whether or not schools and physical activity providers are meeting their obligations under the Rehabilitation Act of the Americans with Disabilities Act to provide physical activity to individuals with disabilities.
- School administrators, community leaders, and government officials should find ways to develop and provide exercise and sport programs that include children with disabilities.
- Increased efforts should be made to develop appropriately designed programs that attract and involve parents and their children with disabilities.

8. Acknowledge the Physical Activity Needs of Children in Immigrant Families

About one-quarter of the U.S. children surveyed indicated that one or both parents were born abroad.

- Sport leaders, educators and public health advocates should begin to assess immigrant children's interest and involvement with sports and physical activity.

- Special focus should be on girls in immigrant families because their participation levels are significantly lower than boys.
- Scholars and researchers who study the social, economic, historical, and health-related facets of immigration in the U.S. should include the institution of sport as a key area for investigation and policy assessment.

9. Recognize Diversity and Who Is In and Out of the Game

Schools, community-based programs, sport governing bodies and commercial fitness/sport programs should monitor minority participation in athletics. Large numbers of girls as well as African-American, Hispanic and Asian boys have joined their Caucasian counterparts. The athletic and social experiences within and across each of these groups vary significantly by grade level, school location and socioeconomic background.

- Sport governing bodies should monitor and evaluate the ongoing provision of athletic participation opportunities across race, ethnicity and gender.
- School and community program leaders should consider developing innovative sports and exercise programs that fit some of the unique needs and interests of children from different cultural backgrounds, rather than expecting that all children fit into the existing array of existing programs.

Appendix A: National Policy Advisory Board

Anita DeFrantz, Esquire, President, LA84 Foundation,
former Vice President of the International Olympic
Committee, member of the United States Olympic
Committee Executive Committee

Sumru Erkut, Ph.D., Associate Director and Senior
Research Scientist, Wellesley Centers for Women

Anne Flannery, Executive Director, PE4Life

Robert Gardner, Chief Executive Officer, National
Federation of State High School Associations

Mary Hums, Ph.D., Professor, Sports Administration,
University of Louisville

Deborah Slaner Larkin, former Executive Director of
the Women's Sports Foundation, former member of
the President's Council on Physical Fitness and Sports.

Michael Messner, Ph.D., Professor of Sociology and
Gender Studies, University of Southern California

Kathleen Miller, Research Scientist, University of
Buffalo Research Institute on Addictions

Merrill Melnick, Professor, Department of Physical
Education and Sport, State University of New York,
the College at Brockport

Benita Fitzgerald-Mosley, President and CEO, Women
in Cable Telecommunications

Donald Siegel, Ed.D., Professor, Department of
Exercise and Sports Studies, Smith College

Appendix B: Research Design and Methods

Harris Interactive, Inc. conducted *Youth Sport in America*, a survey of parents and a survey of students in grades 3 through 12, on behalf of the Women's Sports Foundation and in cooperation with the Center for Research on Physical Activity, Sport & Health at D'Youville College. The research design included telephone interviews with a nationally representative sample of 863 parents of children in grades 3 through 12. A total of 2,185 students in grades 3 through 12 were surveyed during an English class. Questionnaires were administered by the classroom teacher, who proctored the class and was available to answer any student questions. The surveys are intended to explore children's participation in sports and physical activities, with a particular focus on organized and team sports. Topics covered in the surveys included attitudes towards sports and physical activities, sources of encouragement and support as well as family and person satisfaction measures.

The design and methodological facets of the study are discussed below. Additional details, information about procedures, and questions regarding statistical analyses can be routed to the Principal Investigator, Don Sabo, Ph.D., as well as members of the Harris Interactive, Inc. research team.

Public Release of Survey Findings

All Harris Interactive, Inc. surveys are designed to comply with the code and standards of the Council of American Survey Research Organizations (CASRO) and the code of the National Council of Public Polls (NCPP). Because data from the survey may be released to the public, release must stipulate that the complete report is also available. Design and methodological details can also be secured from the Principal Investigator, Don Sabo, Ph.D., at the Center for Research on Physical Activity, Sport & Health.

Parent Survey Methodology

This methodology describes the sampling and interviewing procedures used by Harris Interactive Inc., for the parent survey in the *Youth Sport in*

America report. The survey questionnaire was administered by means of a telephone interview to a representative national sample of 863 adults, 18 years of age or older, who were parents or legal guardians of children in grades 3 through 12. The interview averaged 11 minutes in length. Interviewing took place between April 13, 2007, and May 22, 2007

The Sample

The Harris Interactive telephone sample is based on a methodology designed to produce representative samples of persons in telephone households in the 48 continental United States. The Harris telephone sample makes use of random digit selection procedures that ensure equal representation of persons in households "listed" in telephone directories, as well as persons in households which are "unlisted" in telephone directories.⁵⁰

Parents of African-American and Hispanic children were interviewed at a higher rate than typical random digit selection procedures to allow for more detailed analysis of these populations. Sample for these respondents was drawn using both random digit selection procedures described above and targeted random digit selection, based on known distributions of minority population.

School Survey Methodology An Overview

Harris Interactive, Inc. has developed a sampling process and survey methodology for surveying nationally representative samples of school students. All interviewing is conducted in the classroom.

A self-administered questionnaire was administered during class time to 2,185 students in grades 3 through 12. Interviews were conducted between February 21, 2007, and June 19, 2007, and then again between September 13, 2007, and October 30, 2007.

There are several benefits that can be gained from school-based interviewing as compared to home-based, in-person or telephone interviewing. The school setting proves to be far more neutral,

since young people are allowed to express their attitudes and experiences without the influence of a parent nearby. The privacy of a self-administered questionnaire provides further guarantee of confidentiality when asking young people questions of a sensitive nature. The school-based method also provides opportunities for the use of audio-visual aids. Furthermore, this approach ensures that the sample will include young people in households without telephones or whose parents might otherwise not agree to allow their child to complete an interview.

Creating a School Sample

The Harris national probability sample of schools and students is based on a highly stratified two-stage sampling design. This design employs features similar to the sample designs used in various national surveys of students and schools that are conducted by the National Center for Educational Statistics (NCES).

Sample was drawn from a list of approximately 100,000 public, private and parochial schools in the United States. Public schools were selected from a list of public schools obtained from NCES. The listing of private and parochial schools was obtained from Market Data Retrieval. It is selected to account for differences in grade enrollment, region and the size of the municipality where schools are located. A random selection of schools is drawn on the basis of the number of students in each cell proportionate to the number of students in the universe, creating a cross section of young people in a set of designated grades (in this study, grades 3 through 12).

Gaining the Principal's Consent and Selecting a Class

After sending a letter to principals soliciting their participation, Harris Interactive, Inc. contacted the principals in selected schools by telephone to request their participation in the survey. An eligible grade was randomly assigned to each school. If the principal agreed to participate in the survey, a random selection process was then used to select a particular class to complete the survey. The principal was asked to alphabetize all classes for the grade assigned by

the Harris firm. Using a random number selection grid, an interviewer identified an individual class. For junior and senior high school, where students attend different classes for each subject, only English classes were used to make the selection. Since all students in all grades must study English, this ensures a more representative sample of students by academic track and level of achievement.

Weighting of Data

As with all school-based surveys, a two-stage weighting process is used to ensure a representative sample of students. These weights are based on data from the National Center for Educational Statistics and the U.S. Bureau of the Census, and they control the distribution of students by grade, region, size of place, gender and race/ethnicity. The average class size was 23 students per class.

Data Analysis

Descriptive statistics are reported throughout the report. Subgroup comparisons were also made using t-tests or chi square analyses in order to evaluate basic hypothesized differences between subgroups. These results are reported in most cases in the tables and figures. In some cases, multivariate analyses were conducted in order to assess whether key hypothesized relationships remained significant after controlling for additional variables; e.g., would a hypothesized gender difference remain significant after controlling for age, race and ethnicity, and median family income? Footnotes are included in the text to earmark use of multivariate analyses. Finally, because the surveys produced cross-sectional data, no claims are made for causal relationships in this report. For details on data analysis procedures and results, contact the principal investigator, Don Sabo, Ph.D.

Measures

The measures for the main variables in this study appear below. Consult the Principal Investigator, Don Sabo, Ph.D., for additional information.

Academic Achievement: Students were asked to indicate “What grades do you usually get?” Responses ranged from “Mostly A’s” or “Mostly A’s and B’s” to “Mostly D’s and F’s.” An additional response alternative stated, “My school does not use grades.”

Age at Entry into Sport: Parents were asked, “How old was your (#) year-old daughter (son) when she (he) first started participating in organized or team sports?”

Age at Drop-out: Parents were asked, “How old was your (#) year-old daughter (son) when she (he) stopped participating in organized or team sports?”

Athletic Participation: Children indicated the total number of teams played in response to, “During the past 12 months, on how many sports teams did you play? Please include any teams run by your school or community.”

Athletic Participation (Parental Estimates): Parents were asked, “During the past 12 months, on how many organized and team sports their (#) year-old daughter (son) played?”

Athletic Ability: This concept was measured combining student responses to three Likert-type statements, “I’m not very good at sports,” “It is easy for me to learn a new kind of exercise,” and “I could get really good at a new sport if I tried it.” The Cronbach’s alpha coefficient = .556.

Athletic Identity: This concept was measured combining student responses to three Likert-type statements, “Sports are a big part of who I am,” “I plan to be involved with sports and exercise when I am an adult,” and “I see myself as an athlete.” The Cronbach’s alpha coefficient = .807.

Athletic Involvement: Students were asked, “During the past 12 months, on how many organized or team sports did you play? Please include any organized or team sports run by your school or community.”

Response categories included “no teams,” “1 team,” (2 teams,” and “3 or more teams.”

Body Esteem: This concept was measured combining student responses to three Likert-type statements, “I feel confident about my body,” “I don’t like the way my body looks,” and “My body is getting healthier.” Cronbach’s alpha = .628.

Body Mass Index: The terms “underweight,” “healthy weight,” “at risk of overweight” and “overweight” are used by the Centers for Disease Control (CDC) when describing children. There is no generally accepted definition for “obesity” as distinct from overweight in children and adolescents. This helps to explain why the CDC uses a different set of terms in their screening tools for children. The operational definition of overweight used in this study is as follows. Overweight is defined as above the 95th percentile for the sex/age-appropriate scale. At risk of overweight is defined as the 85th percentile to less than the 95th percentile. An individual child’s percentile indicates his or her relative position to other children of the same sex and age. Age and sex are considered for boys and girls because the amount of body fat changes with age and the amount of body fat differs between girls and boys. The BMI calculations here are estimates—both because the children are self-reporting their height and weight and because the age-by-sex cut-offs used to define the categories (healthy weight, at risk of overweight, etc) are approximate rather than specific measures. Finally, before data collection proceeded, teachers in third to fifth grades were provided with tutorial materials and an information form that involved parents with teaching their children about height and weight before the survey was administered. This was done to augment the accuracy of their responses. Despite this effort to enhance validity, we still excluded the self-reported heights and weights of third- to fifth-grade children in our hypothesis tests due to a lack of confidence in the accuracy of their reporting.

Community Income Level: The concept of “community income level” refers the general economic conditions of a community in which a particular school is embedded. For this study the school community income level was assessed by gleaning statistics from Department of Census data and the Common Core of Data (CCD) created by the U.S. Department of Education’s National Center for Education Statistics. The concept of “school community” refers the community in which a particular school is embedded. The economic vitality of the communities was measured by the median family income within the census tract in which the school was located. Based on these indicators, school communities were categorized as lower-income, middle-income, or upper-income. These same government data sources were used to determine the percentage of racial and ethnic minorities that live within the school communities under study.

Disability Status of Child: Given the complexity surrounding the myriad types of disabilities among children, it was difficult to develop a highly valid measure of disability status that could be integrated into both the parent telephone survey and student survey. In addition, basic terminology had to be used in the parent survey to describe children’s disabilities due to the wide range of educational backgrounds of respondents. Simple and direct language was also used in the student survey due to the young age of many participants (e.g., third- to fifth-grade children). It was also assumed that this study was an initial step to assess the prevalence and perceptions of children with disabilities as well as their parents using nationwide samples. Parents were asked “Does your (#) year-old daughter (son) or any of your children have a health problem or disability that keeps her (him) from doing sports or other physical activities?” and, if necessary, “Does your child have a chronic or persistent health problem?” Responses include, “Yes, my (#) year-old daughter (son),” “Yes, other child(ren),” “No,” and “Don’t know.” In the student survey, children responded “yes” or “no” when asked,

“Do you have a health problem or handicap that stops you from doing sports or other physical activities?”

Drop-out Reasons of Children: Students indicated “yes” or “no” to a list of 16 reasons in response to the following instruction: “Is each of the following statements a reason why you stopped or dropped out of playing an organized or team sport? I stopped or dropped out of an organized or team sport because...” Students also had an option to write in their own reason (which was later open-coded).

Drop-out Reasons of Parents: Parents voiced their responses to this inquiry: “There are many reasons why some young people stop playing organized or team sports. Please tell me why you (#) year-old daughter (son) stopped playing an organized or team sport?” Statements were recorded and later open-coded.

Enjoyment of Exercise: Student expressed agreement or disagreement to the statement, “I really enjoy exercise.”

Extracurricular Involvement: Students responded “yes” or “no” to statement, “Do you participate in any clubs or groups either in school or outside of school?”

Family Satisfaction: Family satisfaction was measured with the 10-item Family Adaptability & Cohesion Scale developed by D.H. Olson, J. Portner & Y. Lavee. The Cronbach’s alpha for this study = .897.

Family Type: Based on basic demographic data from either the parent survey or student survey, families were categorized as “single-parent” or “dual-parent” families.

Immigrant Family Status: The parent telephone survey asked two questions to determine immigrant family status: “Were you born in the United States or another country?” and “Was your spouse or partner born in the United States or another country?” The student survey asked two questions. First, “In what country were you born?” Responses included, “the

United States,” “another country,” “not sure.” Second, “In what country were your parents born?” Responses included, “Both of my parents were born in the U.S.,” “One of my parents was born in the U.S. and the other was born in another country,” “both of my parents were born in another country,” and “not sure.”

Importance of Sports for Children: Children expressed agreement or disagreement with the statement, “Sports are a big part of who I am.”

Importance of Sports for Children, Parent’s Perceptions: Parents were asked to describe the extent that “sports are an important part of my child’s life.” Likert-type response alternatives were provided.

Interest in Exercise and Physical Activity (Parental Perceptions): Parents were asked to describe their child’s interest in exercise and physical activity ranging from “very interested,” “somewhat interested,” “not very interested,” to “not at all interested.”

Interest in Organized and Team Sports (Children’s): Students were asked to agree or disagree with the statement, “I am very interested in playing sports.”

Interest in Sports (Parent’s Perceptions): Parents were asked, “How interested is your ##-year old daughter (or son) in exercising and physical activity – very interested, somewhat interested, not very interested or not at all interested?”

Fast Food Consumption: Students were asked, “How often do you eat at a fast food restaurant – like McDonald’s, Burger King, Subway?” Responses ranged between “twice a week” to “I don’t eat at fast food restaurants.”

Importance of Sports: Students were asked, “How important is playing sports in your life right now?” Responses included, “It’s the most important thing in my life,” “It’s one of the most important things in my life,” “It’s not very important in my life,” and “It’s not at all important in my life.”

Immigrant Family Status: If one or both parents were reported to be born outside the United States, the family is considered an “immigrant family.”

Location of Child’s Athletic Program: Parents were asked, “Where is your (#) year-old daughter (son) involved with these organized or team sports? Is the program through a school, church or house of worship, community program or center, private organization or club, or somewhere else?”

Mentorship in Exercise & Sport: Students were asked to identify “Which two people have taught you the most about exercise and how to play sports?”

Parental Involvement: Parents were asked, “When your child is playing an organized or team sport, how often do you or the child’s other parent do the following with your child related to her (his) involvement in the sport?” Their responses to four statements were combined to create the “parental involvement” score. See Section III for details on response categories. Cronbach’s alpha = .685.

Parents’ Perceived Equity in Sports: Parents were asked to voice their agreement and disagreement with the following statements. 1. The schools in my community care more about boys’ sports programs than girls’ sports programs. 2. Boys are more interested in playing sports than girls. 3. My community offers more sports programs for boys than girls. 4. If I wanted to help a girl get more physically active, I know what steps to take in order to make this happen.

Participation in Clubs: Students were asked, “Do you participate in any clubs or groups, either in school or outside of school? Do not include sports teams.” Response alternatives included “Yes, I participate in a club or group” and “No, I do not participate in any clubs or groups.”

Physical Education Frequency: Students were asked, “In a typical week, how often do you have a physical education (PE) or gym class at school? Responses

included “4 times a week or more,” “twice a week,” “3 times per week,” “once a week,” “never.”

Popularity at School: Students were asked, “Which of the following best describes you?” Response alternatives included, “I am very popular at school,” “I am somewhat popular at school,” and “I am not popular at school.”

Popularity for Boys: “What is the one sure thing that would make a boy popular in your grade at school?” Students checked on of 7 reasons for popularity or write in their own reason.

Popularity for Girls: “What is the one sure thing that would make a girl popular in your grade at school?” Students checked on of 7 reasons for popularity or write in their own reason.

Reasons for Never Playing Sports (Parents): Parents who said their child had never played an organized or team sport were asked, “There are many reasons why some young people never play an organized or team sport. Please tell me why your (#) year-old daughter (son) never played an organized or team sport.”

Reasons for Never Playing Sports (Children): Parent who said their child had never played an organized or team sport were asked, “There are many reasons why some young people never play an organized or team sport. Please tell me why your (#) year-old daughter (son) never played an organized or team sport.”

Self-Described Health: Students were asked to describe their own health using these categories-- “excellent,” “very good,” “good,” “fair” and “poor.”

School Location: For the student survey, principals or superintendents were asked to indicate if their school was located in an rural, suburban or urban community. For the parent survey, parents were asked the same question with regard to their child’s school.

Sources of Encouragement: The student survey asked respondents, “During the past month, how much has each of the following people encouraged you to be

involved with sports and exercise? Has this person encouraged you a lot, encouraged you a little, or did not encourage you? If this type of person is not in your life, please mark that column.”

Television Watching: Students were asked to report the number of hours they watch television each day and during weekends.

Types of Sports and Exercise: “During the past 12 months, which of the following sports or exercise have you done?” Students checked off as many activities from a list of 33 activities and, if preferred, they could write in an additional activity on a blank line.

Quality of Life: Students answered the question, “How well does each of the following statement describe you?” Response alternatives included “A lot like me,” “Somewhat like me,” “Not much like me,” and “Not at all like me.” The statements included (1) I have a lot of friends, (2) I get along well with my parents, (3) I am often bored, (4) I often feel sad and unhappy, (5) I have been happy at school this year, and (6) I get into trouble a lot. This measure was developed by the Kaiser Family Foundation.

School Location (or Urbanicity): The urbanicity code (Q410) in the parent survey data file reflects the urbanicity of the plurality of households in that exchange (the first three digits of a seven-digit phone number, a level of greater detail than the area code alone). It is not based on a respondents’ answers. Metropolitan Statistical Areas, as documented by the Office of Management and Budget, determine urbanicity. Locations in a central city of a MSA are coded as Urban. Location not in a central city of a MSA are coded as suburban. Locations not in an MSA are coded as rural. Urbanicity coding is interative process. Census tracts are first coded by urbanicity based on the plurality of the population in the tract. Then tract-level codes are converted to exchange-level codes again based on the disposition of the plurality of the population of households.

Vigorous Physical Activity: Children were asked, “On how many of the past 7 days did you exercise or do a physical activity for at least 20 minutes straight that made you sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, hiking, fast dancing, or similar activities?”

Vigorous Physical Activity (Parental Estimates):

Parents were asked, “How often does your daughter (or son) exercise or do a physical activity for at least 20 minutes straight that makes her (him) breathe hard and sweat?” Responses included “everyday or almost everyday,” “3-5 times a week,” “Once or twice a week,” “a few times a month,” “less than once a month,” and “never.”

Where Children Are Involved: The school survey asked, “Where do you most often play an organized or team sport?” Responses included “at school,” “in after-school programs,” and “someplace else.”

Endnotes

- 1 Two recent reviews of research on the links between sport and the health of girls and women are: Tucker Center for Research on Girls & Women in Sport (2007). The 2007 Tucker Center Research Report, Developing physically active girls: An evidence-based multidisciplinary approach. University of Minnesota, Minneapolis, MN: Author; and Oglesby, C. A. and the International Working Group on Women and Sport (IWG) and WomenSport International (WSI) (December 2007), Women, Gender Equality and Sport: New York: United Nations Publications
- 2 National Federation of State High School Association, High School Sports Participation Increases Again; Girls Exceed Three Million for First Time. Retrieved online at www.nfhs.org/web/2007/09/high_school_sports_participation.aspx
- 3 Logistic regression was used to predict the odds of students who were more likely to be moderately involved with sports along with students who were more likely to be highly involved in sports. Age, gender, race, family structure, community income level and community type were the independent variables included as the relevant predictors in the logistic regression models. Gender was a significant predictor for both moderately and highly involved athletes while controlling for the variables mentioned above. Being female increased the odds of being moderately involved in sports by 25% ($\exp(b) = 1.255$, $p = .011$), while being female decreased the odds of being highly involved in sports by almost 50% ($\exp(b) = .521$, $p < .001$).
- 4 Stevenson, B. (2007). Title IX and the Evolution of High School Sports. Contemporary Economic Policy, vol. 25, No. 4, 486-505.
- 5 A factor analysis was done in order to explore whether specific clusters of activities formed coherent general sub-groupings of activities. For example, if a student indicated playing football in the last year, they were also very likely to have indicated playing basketball, baseball, track and field, jogging, soccer and weight lifting. This cluster forms a general sub-group of traditional sports that are very commonly engaged in by student throughout the United States. More detailed tables of the factor analysis can be provided upon request.
- 6 The U.S. Centers for Disease Control standards of regular physical activity call for physical activity that raises the heart rate and makes individuals breathe hard some of the time for a total of at least 60 minutes/day on more than five of the seven days preceding the survey.
- 7 Nelson, T. F., Gortmaker, S. L., Bubramanian, S. V. & Wechsler, H. (2007). Vigorous physical activity among college students in the United States. Journal of Physical Activity and Health, 4: 495-508.
- 8 Olson, D. H., Portner, J. & Lavee, Y. Family Adaptability & Cohesion Scale. The utility of this scale was demonstrated by Farrell, M. and Barnes, G. (1993) Family systems and social support: A test of the effects of cohesion and adaptability on the functioning of parents and adolescents. Journal of marriage and the Family, 55:119-32. Within this study, the alpha reliability coefficient for the 10-item Family Satisfaction score was calculated at .879.
- 9 Edin, K. & Kefalas, M. (2005). Unmarried with children. In J. Goodwin and J. M. Jasper (Eds.) The Contexts Reader. New York: W.W. Norton, pp. 62-68.
- 10 Smeeding, T. (2005), Government Programs and Social Outcomes: The United States in Comparative Perspective. Luxembourg Income Study Working Paper Series. Working Paper No. 426, pp. 20-22. Cited in Todd, C. (Feb. 2007), Poverty reduction and welfare provision for single parents in Aotearoa/New Zealand and the United States: A Comparative Analysis. Paper for USBIG Conference (Feb 2007).

- 11 Weinschenker, M. & Heuveline, P. (2006). The International Poverty Gap: Does Demography Matter? Luxembourg Income Study Working Paper Series, Working Paper No. 441, p.3. Cited in Todd, C. (Feb. 2007), Poverty reduction and welfare provision for single parents in Aotearoa/New Zealand and the United States: A Comparative Analysis. Paper for USBIG Conference (Feb 2007).
- 12 Videon, Tami M. (2002). Who plays and who benefits: Gender, Interscholastic Athletics, and Academic outcomes. *Sociological Perspectives* 45:415-444.
- 13 Harrison, P. A. & Narayan, G. (2003). Differences in behavior, psychological factors, and environmental factors associated with participation in school sports and other activities in adolescence. *The Journal of School Health*, 73(3), 113-120.
- 14 Snyder, E. E. and E. Spreitzer (1990). Sport, education, and schools. In *Handbook of Social Science of Sport*, edited by G. R. F. Lueschen and G. H. Sage. Champaign, IL: Stipes Publishing. Miller, Kathleen E., Grace M. Barnes, Donald Sabo, Merrill Melnick and Michael Farrell (2002). Anabolic-androgenic steroid use and other adolescent problem behaviors; Rethinking the male athlete assumption. *Sociological Perspectives* 45: 467-489. Tracy, Allison J. and Sumru Erkut, 2002. Gender and Race Patterns in the Pathways from Sports Participation to Self-Esteem. *Sociological Perspectives*, 45: 445-466.
- 15 These connections were empirically documented in an earlier Women's Sports Foundation report. See Sabo, D., Melnick, M., and Vanfossen, B. (1989). *Minorities in Sports*. New York: Women's Sports Foundation.
- 16 It should be noted that the logistic regression analyses showed that the association between children's athletic participation and family satisfaction remained statistically significant after controlling for the influences of socioeconomic status, race and ethnicity, and the age of children. Contact the authors of this report with questions.
- 17 The Cronbach's alpha for the four-item Parental Involvement score was .685.
- 18 Antonucci, T. C. & Akiyama, H. (1991). *Convoys of Social Support: Generational Issues*. The Haworth Press, pp. 103-118.
- 19 Messner, M. A. (forthcoming). *It's All for the Kids: Gender, Families and Youth Sports*. Berkeley, CA: University of California Press.
- 20 Sack, K. (2007, October 20). Schools found improving on nutrition and fitness. *New York Times*, Section A; Column O; National Desk; pg. 10.
- 21 OLS regression was run to examine the relationship between the frequency of PE classes students have throughout the week and the number of days students exercise during a typical week. Gender, race, age, athletic participation, community income level, community type and frequency of PE classes were used to predict weekly exercise frequency. Frequency of PE classes was found to be a statistically significant predictor of students' weekly exercise frequency (frequency of PE classes ($\beta = .156$, $p < .001$)).
- 22 Centers for Disease Control and Prevention (2005). *Youth Risk Behavior Survey (YRBS)*.
- 23 Duncan, M. C. (2007). Sociological dimensions of girls' physical activity participation. Tucker Center for Research on Girls & Women in Sport. The 2007 Tucker Center Research Report, *Developing physically active girls: An evidence-based multidisciplinary approach*. University of Minnesota, Minneapolis, MN, p. 34.
- 24 Garrett, R. (2004). Negotiating a physical identity: Girls, bodies and physical education. *Sport, Education and Society*, 9,223-237. Ronholt, H. (2002). "It's only the sissies...": Analysis of teaching and learning processes in physical education:

- A contribution to the hidden curriculum. *Sport, Education and Society*, 7, 25-36.
- 25 The relationship between athletic participation and self-reported health for girls and boys was tested using a logistic regression analysis to predict which students were more likely to indicate having excellent health. Age, gender, race, sports involvement, family structure, community income level and community type were the independent variables included as the relevant predictors in the logistic regression models. The analysis revealed that the odds of a student indicating excellent health were two times higher for highly involved athletes when compared to non-athletes ($\exp(b) = 2.081$, $p < .001$).
 - 26 Field, A., Cheung, L., Wolf, A., Herzog, B., Gortmaker, S., and Colditz, G. (1999). Exposure to the mass media and weight concerns among girls. *Pediatrics*, 102(3). Available online at <http://pediatrics.aappublications.org/cgi/content/full/103/3/e36>. Sabo, D., Miller, K. E., Melnick, M. J., & Heywood, L. (2004). *Her Life Depends On It: Sport, Physical Activity, and the Health and Well-Being of American Girls*. East Meadow, NY: Women's Sports Foundation.
 - 27 Field, A., Cheung, L., Wolf, A., Herzog, B., Gortmaker, S., and Colditz, G. (1999). Exposure to the mass media and weight concerns among girls. *Pediatrics*, 103 (3). Available online at <http://pediatrics.aapublications.org/cgi/content/full/103/e36>.
 - 28 The Cronbach's alpha body esteem score is .628.
 - 29 Kaestner, R & Xu, X. (2006). Effects of Title IX and Sports Participation on Girls' Physical Activity and Weight. (2007). *Advances in Health Economics and Health Services Research*, 17:79-111.
 - 30 Bartlett, T., Lancaster, R. & New, N. (2005). Pediatric Obesity: Use a Team Approach. *The Clinical Advisor* (January, pp. 22, 25-31).
 - 31 Anderson, P. S. & Butcher, K. F. (2006). Childhood Obesity: Trends and Potential Causes. *The Future of Children*, 16, pp. 19-45; Ferraro, K. F. and Kelley-Moore, J. A. (2003). Cumulative disadvantage of health: Long-term consequences of obesity? *American Sociological Review*, 68:707-29. Toriano, R. P., Flegal, K. M., Kuczmarski, R. J., Campbell, S. M. & Johnson, C. L. (1995). Overweight prevalence and trends for children and adolescents: The National Health and Nutrition Examination Surveys, 1963-1991. *Archives of Pediatric and Adolescent Medicine*, 149(10):1085-91, 1995 Oct..
 - 32 Wigfield, A & Eccles, J. S. (2002). The development of competence beliefs, expectancies for success, and achievement values from childhood through adolescence. In *Development of Achievement Motivation*, edited by Alan Wigfield and Jacquelynne S. Eccles. CA: Academic Press, pp. 173-195.
 - 33 Crosnoe, R. (2007). Gender, obesity, and education. *Sociology of Education*, 80 (July): 241-260.
 - 34 Perks, T. (2007). Does sport foster social capital? The contribution of sport to a lifestyle of community participation. *Sociology of Sport Journal*, 24, 378-401.
 - 35 The Cronbach's alpha for the six-item quality of life score was .570.
 - 36 For a similar set of research results, see K. Zittleman (2008). Being a girl and being a boy: The voices of middle schoolers. In M. S. Kimmel & A. Aronson (Eds.) *The Gendered Society Reader*. New York: Oxford University Press, pp. 235-261.
 - 37 The Cronbach's alpha score for the quality of life scale was .570.
 - 38 OLS regression was run to examine the relationship between students' quality of life score and athletic participation. Gender, race, age,

athletic participation, family structure, community income level, and community type were used to predict quality of life scores. Athletic participation was found to be the strongest predictor of students quality of life scores (highly involved athlete ($\beta = .156$, $p < .001$); moderately involved athlete ($\beta = .129$, $p < .001$).

- 39 Sabo, D., Melnick, M. & Vanfossen, B. (1992). Educational effects of interscholastic athletic participation on African-American and Hispanic youth. *Journal of Adolescence* 27(106):295-308.
- Sabo, D., Melnick, M. & Vanfossen, B. (1992). Effects of interscholastic athletic participation on the social, educational, and career mobility of Hispanic boys and girls. *International Review of Sport Sociology* 27(1):57-75.
- Sabo, D., Melnick, M. & Vanfossen, B. (1993). Effects of interscholastic athletic participation on post-secondary educational and occupational mobility: A focus on race and gender. *Sociology of Sport Journal* 10(1):44-56.
- 40 Marsh, H. W. and Kleitman, S. (2003). School athletic participation: Mostly gain with little pain. *Journal of Sport and Exercise Psychology*, 25:205-228.
- Crosnoe, R. (2002). Academic and health-related trajectories in adolescence: The intersection of gender and athletics. *Journal of Health and Social Behavior*, 43:317-335.
- 41 The relationship between athletic participation and academic achievement remains significant after controlling for age, socioeconomic status, and race and ethnicity.
- 42 For a discussion of research-based best practices for creating girls' sports and physical activity programs, see Tucker Center for Research on Girls and Women in Sport (2007). The 2007 Tucker Center Research Report, Developing physically active girls: An evidence-based multidisciplinary approach. University of Minnesota, MN: Author. See also <http://www.tuckercenter.org/projects/tcrr/default.html>
- 43 Discussions of just what constitutes a "girl-centered" or "girl-sensitive" sports and exercise program can be found in these sources. (1) Cookey, C., (2006). Getting girls in the game: A qualitative analysis of urban sports programs. A dissertation, Department of Sociology, University of Southern California. (2) Sabo, D. (2006). The Boston Girls' Sports & Physical Activity Project: Midyear Report, 2006. Available through the Women's Sports Foundation, East Meadow, NY 11554.
- Sabo, D. & Ward, J. V. (2006). Wherefore Art Thou Feminisms? Feminist Activism, Academic Feminisms, and Women's Sports Advocacy. *Scholar & Feminist Online*, 4 (3).
- (4) Wheeler, K. A., Oliveri, R., Towery, I. D., & Mead, M. (2004). Where are the girls? The state of girls' programming in greater Boston. Boston, MA: Girls Coalition of Greater Boston.
- 44 For a discussion of how sex segregation in sports may be negatively impacting girls' development, see McDonagh, E. & Pappano, L. *Playing with the Boys: Why Separate is Not Equal in Sports*. New York: Oxford University Press.
- 45 Portes, A. (Ed.) (1996). *The New Second Generation*. New York: Russell Sage Foundation.
- Portes, A. & Rumbaut, R. G. (2001). Berkeley, CA: University of California Press.
- 46 Caution should be used when interpreting these results due to the small base sample sizes. Some parents may have been reluctant to reveal this information to a telephone interviewer. For the student survey, younger children may not be certain of their parent's birth place.
- 47 Pew Hispanic Center (October 2006), *A Statistical Portrait of the Foreign-Born Population at Mid-Decade*. Accessed online (November, 29, 2007), <http://pewhispanic.org/reports/foreignborn/>
- 48 Ibid.

49 For relevant discussion of the role that family-school partnerships can play with regard to student academic achievement see Henderson, A. T. & Mapp, K. L..(2002). *A New Wave of Evidence: The Impact of School, Family, and Community Connections on Student Achievement*. Austin, TX: Southwest Educational Development Laboratory.

50 Some householders are “unlisted” as the result of a request for an unlisted phone number by the telephone subscriber. Other households are “unlisted” in the published directory because the telephone number was assigned after the publication date of the directory. Samples that are restricted to directory listed numbers only many contain serious sample biases because of the exclusion of various types of unlisted households.

About the Women's Sports Foundation

The Women's Sports Foundation—the leading authority on the participation of women and girls in sports—advocates for equality, educates the public, conducts research and offers grants to promote sports and physical activity for girls and women.

Founded by Billie Jean King in 1974, the Women's Sports Foundation builds on her legacy as a champion athlete, advocate of social justice and agent of change. We strive for gender equity and fight discrimination in all aspects of athletics.

Our work shapes public attitude about women's sports and athletes, builds capacities for organizations that get girls active, provides equal opportunities for girls and women, and supports physically and emotionally healthy lifestyles.

The Women's Sports Foundation is recognized worldwide for its leadership, vision, strength, expertise and influence.

For more information, please call the Women's Sports Foundation at 800.227.3988 or visit www.WomensSportsFoundation.org.



Women's Sports Foundation
founded by Billie Jean King

Eisenhower Park
1899 Hempstead Turnpike, Suite 400
East Meadow, New York 11554

☎ 516.542.4700 ☎ 516.542.4716
info@WomensSportsFoundation.org
www.WomensSportsFoundation.org