

## Sports Participation in Secondary Schools: Resources Available and Inequalities in Participation

*Participating in school sports is an important means to increase physical activity among adolescents. This brief examines participation during the school year by secondary school students in interscholastic sports (played against teams from other schools) and intramural sports (team and individual sport activities amongst students within the same school). It shows how participation varies by schools' socioeconomic status and available sports facilities as well as gender. Data were collected from 2009 to 2011 and are representative of U.S. public school students in 8th, 10th and 12th grades.*

- *Participation in interscholastic sports is higher at higher SES schools and at schools that have more sports facilities.*
- *Many schools have no participation in intramural sports, and among those that do, participation rates are higher for middle school students at high-SES schools.*
- *Across all measures, sports participation among boys is higher than it is for girls.*

### Introduction

Regular physical activity confers multiple physical and mental health benefits and plays a vital role in efforts to combat childhood obesity.<sup>1,2</sup> The U.S. Department of Health and Human Services suggests that children and adolescents accumulate 60 minutes of physical activity every day,<sup>3</sup> yet most young people do not meet these guidelines.<sup>4,5</sup> Further, physical activity levels tend to decline during adolescence suggesting that efforts to promote physical activity during this period are essential.<sup>6</sup>

Participation in organized school sports offers opportunities for students of all ages to be physically active and has been shown to help improve students' self-esteem and psychological well-being.<sup>7</sup> While participation in sports can play an important role in increasing physical activity levels,<sup>8</sup> as some have noted, school sports participation alone may not be sufficient to meet the current physical activity recommendations for adolescents.<sup>9</sup> Therefore sports participation should not be seen as a replacement for physical education in schools but rather as a supplement to the solid foundation provided by physical education.

The majority of U.S. middle and high schools offer interscholastic or varsity sports involving competition between teams from different schools. Some middle and high schools offer intramural sports that allow for team and

individual sport activities amongst students within the same school. More recently, intramural programs have expanded to include physical activity clubs and dance activities to help increase sports participation.<sup>10</sup> Intramural programs generally are open to all students regardless of skill level.

This brief examines the percentage of U.S. adolescents in 8th, 10th and 12th grades who participate in interscholastic or varsity sports (hereafter referred to as interscholastic sports) and intramural sports or physical activity clubs (hereafter referred to as intramural sports). Further, it examines the extent to which rates of sports participation vary by gender, school socioeconomic status (SES)<sup>1</sup> and number of sports facilities.<sup>2</sup> Data were collected from 2009 to 2011 and are based on reports from a national sample of school administrators in public middle and high schools. The findings identify opportunities for strengthening intramural and interscholastic programming at schools and provide guidance for policymakers and community advocates to increase physical activity for students across income levels.

## Key Findings

*Fewer than one-third of students take part in interscholastic sports, and participation in intramural sports is even lower.*

- The percentage of students participating in interscholastic sports during the school year is relatively consistent across 8th, 10th and 12th grades at 31 percent, 30 percent and 30 percent, respectively. For intramural sports, 22 percent of students in 8th grade participate. Rates of participation among students in 10th and 12th grades are about half that.
- Higher percentages of boys than girls participate in interscholastic sports and intramural sports. The gender gap is between 2 percent to 5 percent, which is statistically significant and present for all grades.

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<sup>1</sup> School SES is defined by the percentage of students eligible to receive a free or reduced-price lunch. Schools were divided into three equally sized groups representing low-SES schools, mid-SES schools and high-SES schools.

<sup>2</sup> School sports facilities were defined by the availability of ten different sports facilities (e.g., track, pool). Three roughly equal groups were created for 8th grade (0-3, 4/5, 6+ facilities) and 10<sup>th</sup>/12<sup>th</sup> grade (0-5, 6/7, 8+ facilities).

- Some schools have no participation in intramural sports. About 40 percent of high school students and 23 percent of middle school students attend schools that report zero participation in intramural sports.

*The percentage of students participating in sports varies with school SES.*

- The percentage of students participating in interscholastic sports increases as school SES increases. In 8th and 10th grade, sports participation and school SES show a dose-response relationship, meaning sports participation is higher at mid-SES schools compared to low-SES schools and is even higher at high-SES schools compared to mid-SES schools (see figure 1). In 12th grade, the dose response relationship between school SES and sports participation is evident only in schools with many sports facilities, such as fields and gyms.
- Among those middle schools where students participate in intramural sports, students in high-SES schools are more likely to participate in intramural sports than students in low-SES schools.

*The percentage of students participating in interscholastic sports varies with the number of sports facilities at a school.*

- Student participation in interscholastic sports is higher at schools with more sports facilities compared with schools that have few facilities (see figure 2). This relationship remains even after considering school SES.
- The percentage of students participating in intramural sports does not vary with the number of sports facilities.



Figure 1: Interscholastic sports participation by school SES among boys and girls for 2009-2011

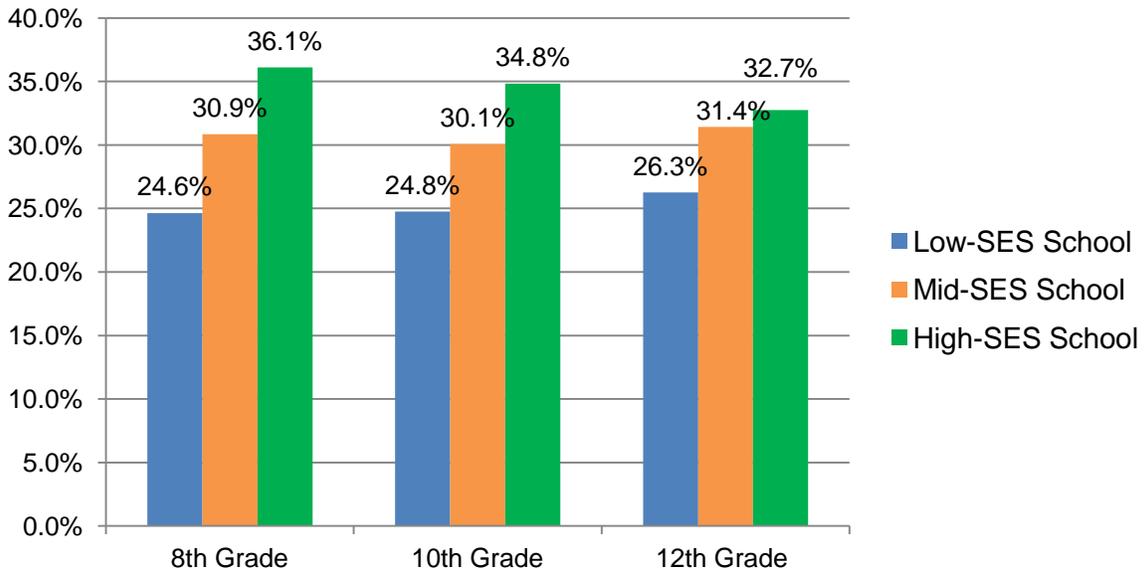
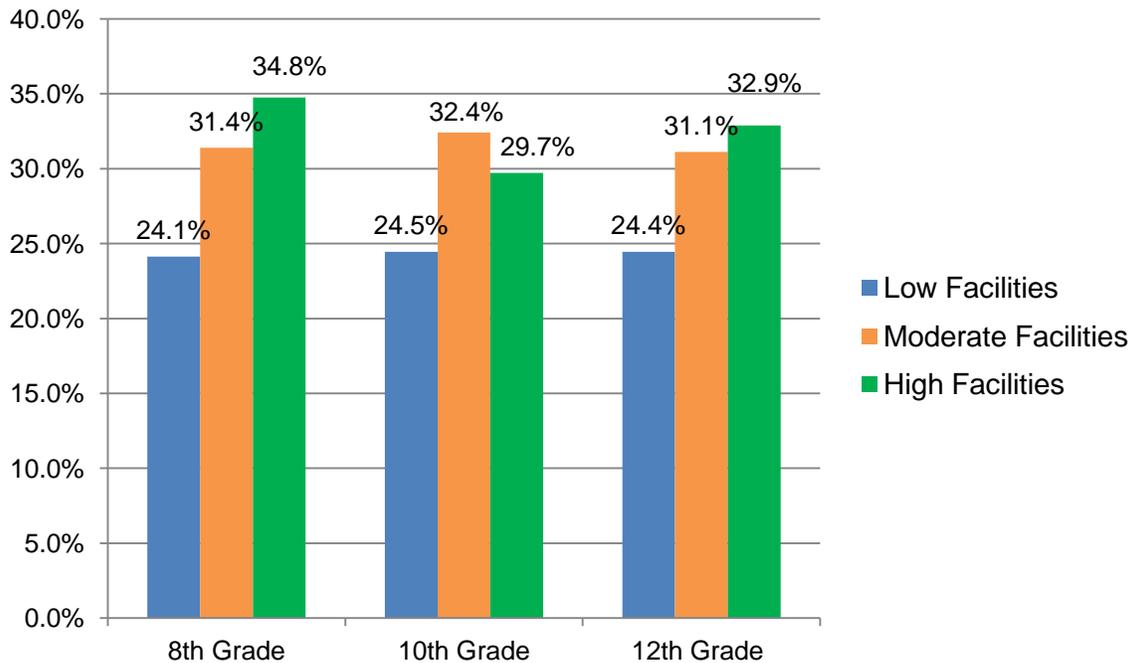


Figure 2: Interscholastic sports participation by sports facilities among boys and girls for 2009-2011



## Conclusions and Policy Implications

Physical inactivity among youth is an important public health issue and efforts to increase physical activity are sorely needed. Several national organizations, including the Institute of Medicine and the U.S. Department of Health and Human Services, have promoted sports participation as a means to increase physical activity levels.<sup>11, 12</sup> Both organizations emphasize the need to increase support for intramural sports to help provide opportunities for all students to participate in sports, regardless of skill level. The low levels of participation in intramural sports documented in this study suggest an opportunity to increase the availability and acceptability of such programs.

The number of students participating in sports also can be increased by implementing a no-cut policy for interscholastic sports, whereby no students are eliminated from participation based on factors such as their skill level. The National Association for Sports and Physical Education suggests that all middle schools conduct interscholastic sports with a no-cut policy.<sup>13</sup> Some schools have adopted a no-cut policy for interscholastic sports, including at the high school level.<sup>14</sup>

Similar to other studies,<sup>5-15</sup> our study found that girls participate in sports at lower rates than do boys. Title IX, the federal law that prohibits sex discrimination in any education program or activity receiving federal financial assistance, has had a profound effect on increasing the number of girls who participate in sports. Rates of sports participation for girls have increased more than tenfold since its enactment.<sup>16</sup> Yet 40 years later, a gender gap still remains. Efforts need to be made to increase sports participation by girls and eliminate the gender differences that still exist.

Appropriate facilities are an essential element for many sports. Sufficient funding to establish and maintain facilities may help increase physical activity levels. In schools with few resources, joint use agreements may help to promote physical activity at facilities within the community if available. Joint use agreements are written contracts that detail conditions for sharing resources between two or more entities. Joint use agreements can take a variety of forms but often allow for community members to use facilities on school grounds when not in use and/or for students to use community facilities.

ChangeLab Solutions offers model templates for joint use agreements.<sup>3</sup>

Finally, rates of sports participation differ markedly by school SES even after considering the number of sports facilities at the school. In order to ensure equitable participation across all income levels, barriers to sports participation that may disproportionately affect lower-income students such as pay-to-play fees, equipment costs or lack of school-supported transportation, need to be addressed. As schools are increasingly faced with budget cuts, care must be taken to evaluate the effects of cuts on sports programming, in particular the effects on vulnerable populations.

## Study Overview

The findings in this brief are based on data from the Bridging the Gap study. More than 2,000 surveys were completed by administrators (mostly principals) of 8th, 10th and 12th grade students in public schools across three school years, 2008–2009, 2009–2010 and 2010–2011. The resulting data are weighted such that the results are representative of students in public schools in the coterminous U.S. at each grade level. Schools were categorized as low-, mid-, or high-SES based on the percentage of students who were eligible for a free or reduced-price lunch. Schools were categorized as having a low, moderate or high number of sports facilities based on the availability of ten different facilities. Both school SES and facility categorizations were done separately for 8th grade schools versus 10th and 12th grade schools. Rates of participation in interscholastic sports were reported separately for boys and girls at each grade level, as were the rates for participation in intramural sports. The relationships between school socio-economic level, availability of facilities and gender with sports participation (i.e., participation in interscholastic sports and intramural sports, separately) were tested using multivariate regression models that controlled for the number of students in the school and year of data collection.

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<sup>3</sup> More information about ChangeLab Solutions' joint use agreement resources is available at [changelabsolutions.org/childhood-obesity/joint-use](http://changelabsolutions.org/childhood-obesity/joint-use)

## Endnotes

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## About Bridging the Gap

*Bridging the Gap* is a nationally recognized research program of the Robert Wood Johnson Foundation dedicated to improving the understanding of how policies and environmental factors influence diet, physical activity and obesity among youth, as well as youth tobacco use. The program identifies and tracks information at the state, community and school levels; measures change over time; and shares findings that will help advance effective solutions for reversing the childhood obesity epidemic and preventing young people from smoking. Bridging the Gap is a joint project of the University of Michigan's Institute for Social Research and the University of Illinois at Chicago's Institute for Health Research and Policy. For more information, visit [www.bridgingthegapresearch.org](http://www.bridgingthegapresearch.org).