bridging the gap

Research Informing Policies & Practices for Healthy Youth

School Policies and Practices to Improve Health and Prevent Obesity: National Secondary School Survey Results

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2007 - 2008
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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 affect diet, physical activity and obesity among youth, as well as youth tobacco use. The program identifies and tracks information at the national, 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*.

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Introduction

Today, nearly one-third of adolescents are either obese or overweight.[1] Obese children are at higher risk for serious health problems, have greater psychological stress, and are absent from school more often than their healthy-weight peers.[2-5]

In addition, significant disparities exist. Latino and non-Latino Black youths are more likely to be obese or overweight than non-Latino White youths,[1] and significant differences in overweight and obesity among children have been observed based on family income.[6] Youth from lower income families, in particular, are more likely to be overweight as adults, which puts them at higher risk for lower educational attainment, chronic health problems, and dependency on welfare or unemployment compensation.[7]

Many leading public health authorities, including the Institute of Medicine (IOM), recognize the critical role schools play in preventing and reducing childhood obesity.[8] The foods and beverages available in school have been shown to be significantly associated with the nutritional intake and weight of children across all grade levels.[9-11] Schools also provide important opportunities for physical activity to children across all grade levels.[12] A growing body of evidence shows that school-based policies can help reduce children's caloric intake,[13,14] as well as their purchases and consumption of sugary drinks.[15] School-based interventions also help increase the amount of time children spend in physical activity while at school.[16] Because school policies and practices impact millions of children nationwide, changing the school environment to support healthy eating and promote physical activity are important goals for improving children's health and addressing disparities in overweight and obesity.

Report Overview

This report updates one of the most comprehensive studies of health-related policies and practices in U.S. public middle and high schools to date, originally released in August 2011.[17] The major findings and trends presented in this report describe issues relevant to childhood obesity for eight school years, from 2006-07 to 2013-2014. We examine foods and beverages offered through the National School Lunch Program and also outside of school meal programs, including those sold in vending machines, school stores and à la carte cafeteria lines. We also examine physical education requirements and rates of participation; participation in varsity and intramural sports; and walking and bicycling to and from school.

This report offers timely insights for the U.S. Department of Agriculture (USDA) to consider as it continues implementation of the Healthy, Hunger-Free Kids Act of 2010. The report also helps inform future policies that aim to prevent obesity and improve children's diets, physical activity levels and overall health. Data presented in this report:

- Help document how secondary schools implemented district wellness policies during the eight years following implementation of the wellness policy mandate;

- Help document what foods and beverages were being offered through the National School Lunch Program (NSLP) meal in the first two years of implementing the majority of new USDA school meal requirements (which began in the 2012-13 school year);[18,19]

- Help provide a benchmark for documenting foods and beverages offered through so-called competitive venues (à la carte cafeteria sales, vending machines, and school or student stores, snack bars, or carts) immediately prior to implementation of the new USDA Smart Snacks competitive venue nutrition standards (implementation began in the 2014-15 school year);[20]

- Provide guidance for local, state, and federal policymakers about successes and areas where new legislation is needed to strengthen existing efforts;

- Help school administrators, school board members, and parents benchmark their own schools' progress and identify areas of greatest progress and weakness; and

- Help school administrators, policy makers, and the general public understand gains made and work still needed to address disparities in childhood obesity rates.

- Document the many ways in which public secondary schools have improved food and beverage options offerings to students and the very few ways in which they have facilitated physical activity levels to date.

Major Findings

Our findings are based on surveys of administrators (primarily school principals) from nationally representative samples of public middle and high schools.[a] Results describe policies and practices in place during the 2006–07 through 2013–14 school years, which are referred to throughout this report as 2007 through 2014, respectively (and were the years in which the surveys actually took place). Data are weighted to reflect the percentages of students nationwide who attended a school with a policy or practice referenced in the survey. Weighting by the numbers of students affected, rather than simply giving the percentage of schools with a particular practice, ensures that larger schools (which affect more students) count more heavily than smaller schools. All findings were examined for changes over time and differences 1) between middle and high school; 2) by school socioeconomic status (SES); 3) by student race/ethnicity; and 4) by school majority race/ethnicity. In the presentation of results that follows, we discuss time trends for all measures. In general, differences between middle and high school, or by SES, or by race/ethnicity, are discussed only if the differences are statistically significant. However, a separate document ("Complete Descriptive Statistics", posted on the same page of the BTG website as this report) contains subgroup prevalence and trend data for virtually all individual questions contained in the survey series. The current report concludes with Table 1, which summarizes key practices for the 2006-07 through 2013-14 school years. More information, including questionnaires and complete statistical findings for all variables and for all school years, is available at:

http://www.bridgingthegapresearch.org/research/secondary_school_survey/.

Since our study began in 2007, there have been important improvements in the nutrition environment of U.S. public secondary schools. Many schools have been making an effort to offer students healthier foods and beverages for lunch and to provide healthier options in competitive venues. Yet, most students still had easy access to sugary drinks and junk foods. Little to no progress was observed related to increasing physical activity among students during or after the school day. Physical education requirements for high school students were especially lax. Participation in sports and physical activity clubs remained low, as did the number of students who walk or bike between home and school.

Disparities by SES and Race/ Ethnicity

This report also highlights a number of conditions in middle and high schools that contribute to disparities across socioeconomic levels and across the racial and ethnic groups served. For example, students in low-SES schools were less likely than students in high-SES schools to have a variety of healthy foods available through competitive venues, including fruits and vegetables, salads, and whole grains. Students in low-SES schools and majority Latino schools were less likely to participate in sports programs than their peers in predominantly White or high-SES schools. In addition, students in low-SES schools were less likely than students in high-SES schools to attend a school that shared its recreational facilities outside of school hours, and students in low-SES middle schools were significantly less likely than their peers in high-SES schools to receive formal classroom instruction on nutrition, dietary behavior, or physical activity, exercise and fitness. These are disparities that deserve focused attention and corrective action.

[a] Companion reports that focus on health-related policies and practices in U.S. elementary schools for school years 2006-07 through 2009-10 are available at *www.bridgingthegapresearch.org*.

Nutrition: School Meals

Schools have a significant impact on students' nutritional choices and behaviors. According to the third School Nutrition Dietary Assessment Study in 2005 (the most recent data available), the average student obtained and consumed one quarter of their daily calories at school; among those who participated in school meals, the level reached almost 50 percent.[21] School meals—in particular school breakfasts—have been shown to be especially important for lower-income youths. Based on an extensive review of the literature, Brown et al.[22] reported that among children in lower-income households (who are at high risk for obesity), those who participated in the School Breakfast Program had better eating habits, nutritional status, educational preparedness and educational outcome measures than their lower income peers who did not eat breakfast.

The 2012-13 school year was the first year of implementing the majority of new National School Lunch Program requirements.[19] Since that time, public middle and high schools have demonstrated real progress in improving the nutritional quality of foods and beverages available through the National School Lunch Program. However, more remains to be done.

Key Findings

The following section describes key findings in public schools from 2007 to 2014.

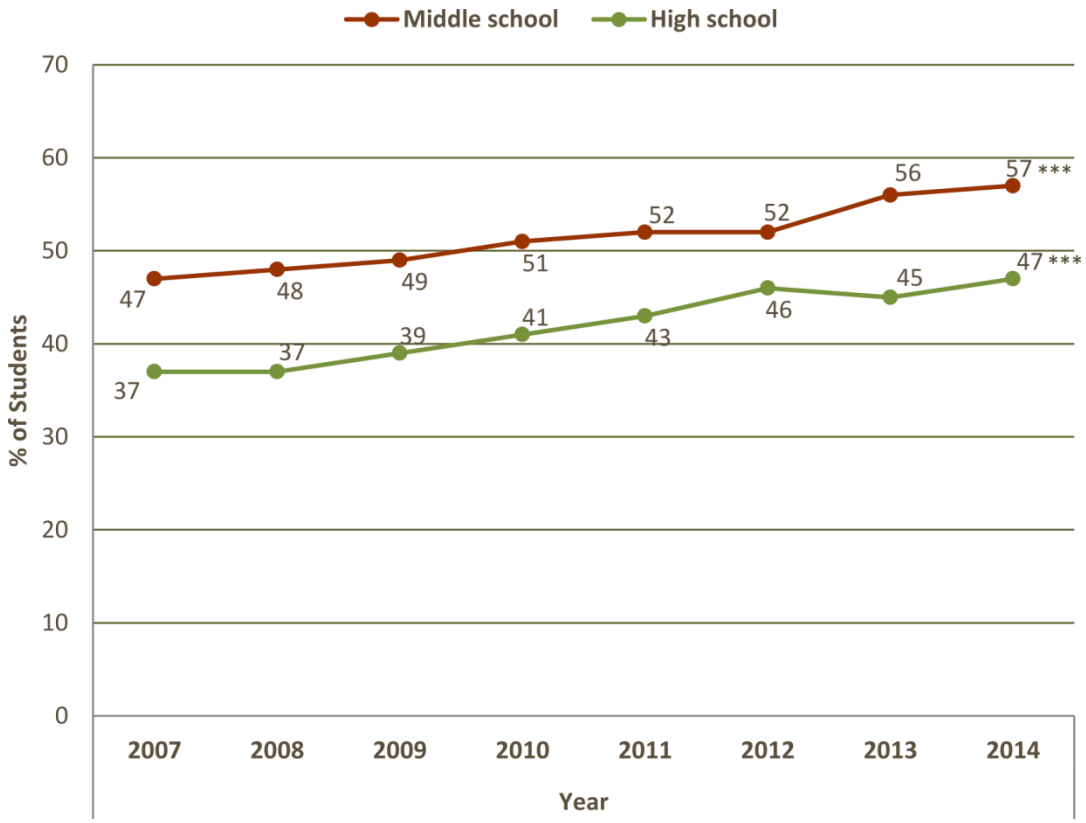
Student Eligibility to Receive Free and Reduced Price Lunch

- As shown in Figure 1, reports from participating secondary school administrators show that the percentage of students eligible toreceive free and reduced price lunch (FRPL) gradually increased from 47 percent in 2007 to 57 percent in 2014 for middle school, and from 37 percent to 47 percent for high school. These increases were significant for the total samples ($p<.001$) as well as all SES tertiles or thirds.[b] The percentage of students eligible for FRPL in 2014 was significantly higher at the middle school level than high school ($p<.001$).

- At the middle school level, the percentage of FRLP-eligible students significantly increased in predominately White schools (where 66% or more of the student population was White) and majority Latino schools. The increase in predominately White schools was from 28 percent in 2007 to 39 percent in 2014 ($p<.001$); the increase in majority Latino schools was from 76% in 2007 to 84% in 2014 ($p<.05$). No significant increase was observed in majority Black schools. At the high school level, the percentage of students eligible for FRPL significantly increased in both predominately White schools (from 25% in 2007 to 34% in 2014; $p<.001$) and majority Black schools (from 63% in 2007 to 85% in 2014; $p<.001$). This increased eligibility and reliance on free and reduced price foods in the schools likely derives in large part from the deep recession that occurred during the study. Since 2007, the percentage of students eligible for FRPL has been significantly higher in majority Black and Latino schools than in predominately White schools at both the middle and high school levels ($p<.001$). The nutritional impact of foods and beverages available in schools is also likely to be greater for the students eligible for FRLP.

[b] SES tertiles for both middle and high school are calculated yearly and are based on school administrator-reported percentages of students eligible for free and reduced price lunch (FRPL). Each tertile represents one-third of the students ranked by this percentage for their school.

FIGURE 1 **Trends in the Percentage of U.S. Public Middle and High School Students Eligible for Free and Reduced Price Lunch, 2007-2014**



***p<.001 (significance level of differences between first and most recent year of data reported).
Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

The percentage of students reported to be eligible for free and reduced price lunch in U.S. public middle and high schools has been significantly increasing since 2007.

Eating Breakfast and Lunch at School

- Approximately 80 percent of middle and high school students attended a school that participated in the School Breakfast Program in 2014 (80% of middle and 79% of high school students), and approximately 85 percent of students attended schools participating in the National School Lunch Program (84% of middle school and 86% of high school students).

- The percentage of students eating breakfast at school increased significantly from 25 percent in 2007 to 35 percent in 2014 (p<.001) at the middle school level, and from 20 percent to 27 percent (p<.01) at the high school level. Significantly more middle school students than high school students were reported to eat breakfast at school (p<.001). Eating breakfast at school continued to be significantly related to school SES and student race/ethnicity for both middle and high school students, with participation significantly and inversely associated with school SES (p<.01), and significantly more likely for students in majority Black and Latino schools than for students in predominately White schools (p<.001).

- In 2014, free breakfast for any student, regardless of ability to pay, was available to 32 percent of middle school students (a significant increase from 22% in 2009; p<.01) and 19 percent of high school students. Such availability was much higher in low-SES schools than mid- or high-SES schools: 66 percent versus 25 percent and 4 percent for middle school students (p<.001), and 41 percent versus 13 percent and 1 percent for high school students (p<.01). Free breakfast regardless of ability to pay was significantly less likely for White students than for Black or Latino students (16% vs. 50% and 49%, respectively, for middle school students; 8% vs. 40% and 33% for high school students; p<.001).

- The 2014 average full price[c] charged for a School Breakfast Program meal was $1.33 for middle school students and $1.40 for high school students. Average National School Lunch Program prices were $2.22 for both middle and high school students.

- Figure 2 shows that about one-fifth of students (22% of middle and 20% of high school students) were reported to bring their own lunch in 2014. These percentages were stable in comparison with 2012 and 2013, but were a significant increase since 2007 for both middle and high school students (from 16% in 2007 for middle school students and from 15% in 2007 for high school students; p<.001). Seventy percent of middle school students and over half (56%) of high school students ate the lunch meal offered by the school in 2014. (Middle school participation in school lunch was significantly higher than for high school; p<.001.) The percentage of students reported to be eating the school lunch meal was significantly and negatively associated with school SES for both middle and high school students (p<.05); that is, as school SES decreased, significantly more students ate the school lunch meal.

- Figure 2 also shows that 5 percent of middle school and 8 percent of high school students were reported to not eat any lunch in 2014 (high school rates were significantly higher; p<.001). The estimated percentage of students who did not each lunch was significantly higher in low-SES middle schools than in high-SES middle schools (6% vs. 3%, p<.05).

- In 2014, 6 percent of high school students went off-campus at lunch, a significantly higher percentage (p<.001) than middle school, where 4% of students were reported to go off-campus (Figure 2).

- Finally, very few students in 2014 (2% of middle school and 6% of high school students) were reported to typically purchase lunch from vending machines or stores, snack bars, or carts. High school students were significantly more likely to do so than middle school students (p<.001). The percentages of both middle and high school students obtaining lunch from competitive venues was significantly lower in 2014 than in 2007, when rates were 4 percent for middle school and 8 percent for high school students (p<.05).

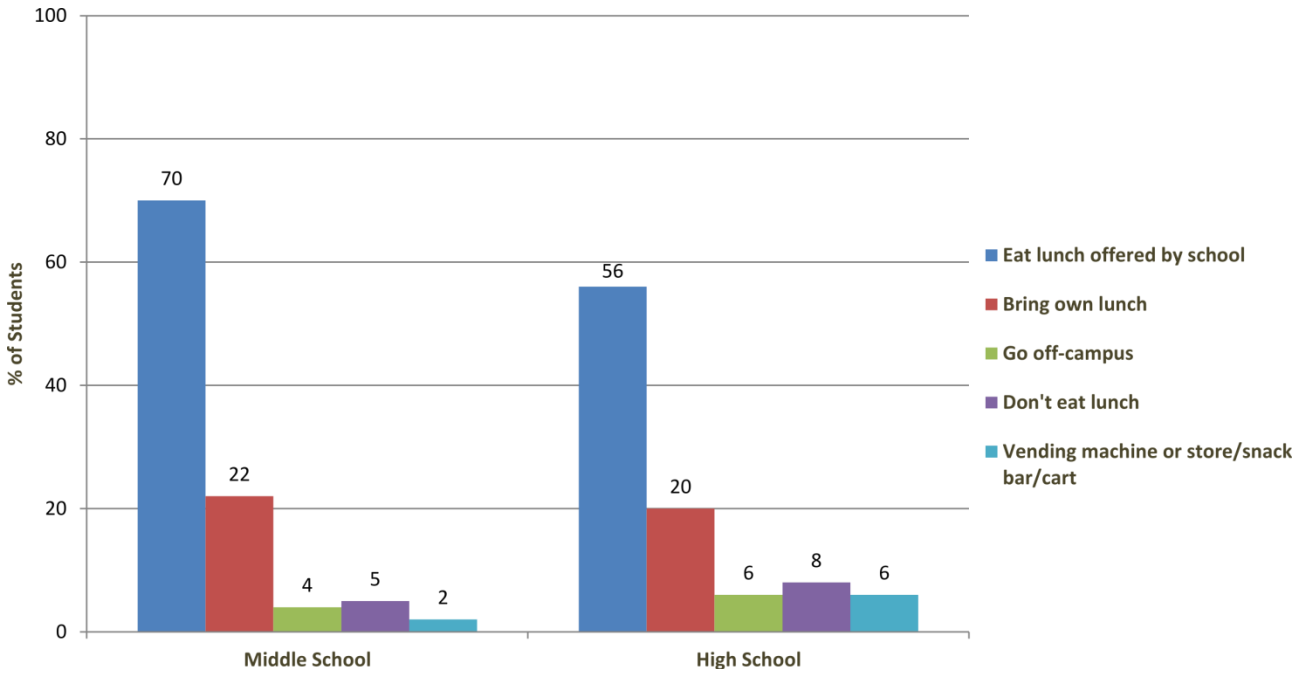
Response to New USDA School Lunch Meal Standards

As noted previously, the 2013-14 school year was the second year during which the majority of new USDA standards had been implemented for meals served through the National School Lunch Program.[19]

- In 2014, at least 85 percent of students (85% of middle school and 87% of high school students) attended schools that reported being certified to be in full compliance with USDA meal standards for the target grade surveyed. An additional 3 percent of middle school and 2 percent of high school students attended schools that were in the process of being certified. Approximately 10 percent of students attended schools in which the administrator was not sure of the school's compliance certification status.

[c] Price data are reported here for students attending schools that a) participated in the respective program (School Breakfast Program or National School Lunch Program) and b) did *not* provide a free meal to all students.

FIGURE 2 Source of Lunch on Typical School Day, 2014



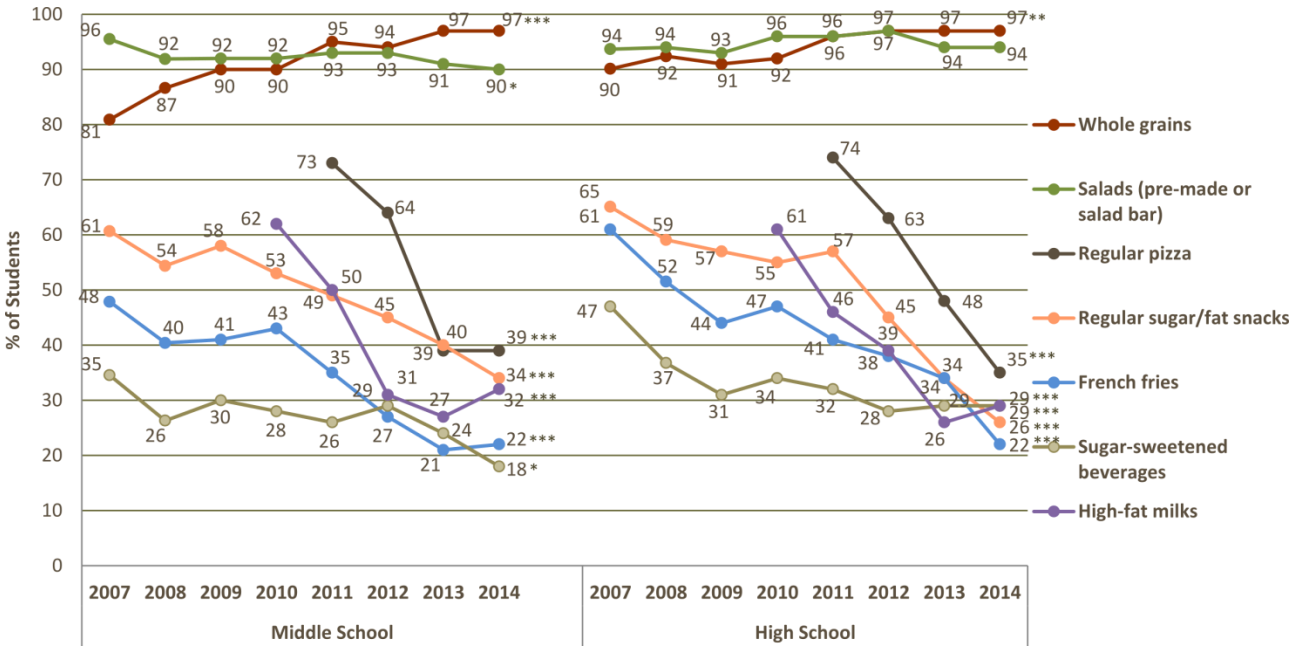
Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

Schools remained the primary lunch source for students, but while 70 percent of middle school students ate the lunch offered by the school, the rate was significantly lower (56%) among high school students in 2014 (p<.001).

A series of questions were posed to school administrators about changes resulting from the new standards. The overwhelming majority of students attended schools where administrators reported that lunch meals had changed as a result of the new standards (90% of both middle and high school students). Where the school lunch meal had changed as a result of the new standards:

- Approximately half of students (52% of middle school and 55% of high school students) attended schools where administrators reported that students had complained to a great or very great extent about the new meals at first. Yet, only 18 percent of both middle and high school students attended schools where administrators reported continued strong complaints at the time of survey (Spring 2014).
- Sixty-six percent of middle and 61 percent of high school students attended schools where administrators reported that students generally seemed to like the new meals at least to some extent.
- Compared to the previous school year (2012-13), approximately 20 percent of both middle and high school students attended schools where administrators reported less plate waste (students throwing away uneaten food; 23% for middle school and 20% for high school students). Plate waste was reported to be about the same during the previous year at schools attended by 46% of middle school and 43% of high school students. Somewhat more plate waste than prior year's was reported at schools attended by 23 percent of middle school and 21 percent of high school students.

FIGURE 3 Trends in the Percentage of Students with Selected Items Available at Lunch Meals, 2007-2014



Data reported only for students whose schools participated in the National School Lunch Program.
*p<.05; **p<.01; ***p<.001 (significance level of differences between first and most recent year of data reported).
Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

The availability of regular pizza, regular sugar/fat snacks, french fries, sugar-sweetened beverages, and high-fat milks significantly decreased between 2007 and 2014 for both middle and high school students.

Much more plate waste was reported at schools attended by only 8 percent of middle and 16 percent of high school students. Compared to 2012-13, significantly more middle students attended schools with less waste (p<.05), and significantly fewer students attended schools with much more waste (p<.01).

- The majority of students attended schools where administrators reported that the 2014 National School Lunch Program meal offered (1) a greater *variety* of fruits and vegetables compared to the previous school year (61% of middle school students and 62% of high school students; (2) a greater *amount* of fruits and vegetables 55% of middle and 60% of high school students) and (3) more whole grain options (64% of middle school and 68% of high school students). Approximately 40 percent of students attended schools where administrators reported that, compared to 2012-13, National School Lunch Program meals in 2014 offered more low fat dairy products (41% of middle school and 44% of high school students). Similar percentages of middle and high school students attended schools reported to have a greater variety of entrée options (39% and 45%).

- A variety of strategies were used to promote healthier school lunch meals, the most common of which were promotion signage/events in the cafeteria (reported in schools attended by 47% of middle school and 56% of high school students), followed by newsletters and student taste tests (30% and 26% of middle school students; 32% and 39% of high school students, respectively). Student advisory groups were used to promote healthier meals in schools attended by 19 percent of middle

school and 29 percent of high school students. Use of promotional signage/events, student taste tests, and student advisory groups was significantly higher for students attending high schools than middle schools ($p<.05$). Engagement with PTA or parent groups to promote healthier school lunch meals was reported in schools attended by approximately 20 percent of students, and use of social media was reported in schools attended by only about 14% of students.

Beverages and Foods Available Through the National School Lunch Program Meal

Significant improvements have taken place in the mix of beverages available to students at school through the National School Lunch Program meal. Availability of beverages and foods is defined as availability on some days or most/every day.

- Healthy beverages—those recommended by the IOM, including water, 100% fruit or vegetable juice, and non-fat or 1% milk—were available to virtually all secondary school students (97% of middle school and 99% of high school students in 2014).

- The Healthy, Hunger-Free Kids Act of 2010 required that by the beginning of the 2011-12 school year, schools participating in the National School Lunch Program make potable water available at no charge in the place lunch is served during meal service.[23] In 2014, the great majority of students attended schools with such access. However, potable drinking water was *not* available in the cafeteria at lunchtime for 4 percent of middle and high school students attending schools participating in the National School Lunch Program. (This actually represents a welcome and statistically significant increase in cafeteria water availability since 2012 levels of 10% for middle school and 9% for high school students; $p<.05$.) In schools that did *not* participate in the National School Lunch Program, potable drinking water was unavailable in the cafeteria for 7 percent of middle and 9 percent of high school students.

- In 2014, 18 percent of middle school students had sugar-sweetened beverages available—down significantly from 35 percent in 2007 ($p<.05$). The availability of sugar-sweetened beverages also decreased significantly for high school students from 47 percent in 2007 to 29 percent in 2014 ($p<.001$). Sugar sweetened beverages include regular soft drinks, sports drinks, and high calorie fruit drinks that are not 100% fruit juice.

- In 2014, the availability of energy drinks was measured for the first time in this survey. Results indicated that no middle school students had energy drinks offered through the National School Lunch Program meal; only 1 percent of high school students had such access.

- Availability of *high-fat* milks (flavored or unflavored) decreased by about half from 2010 (the first year availability was measured) to 2014: from 62 percent to 32 percent for middle school students ($p<.001$), and from 61 percent to 29 percent for high school students ($p<.001$). High-fat milk was significantly more available for high school students in low-SES versus high-SES schools (38% vs. 20%; $p<.01$)—a difference that could be easily eliminated to the benefit of students in low-SES schools.

- *Low-fat* (1%) milks (flavored or unflavored) were available to 86 percent of middle school and 89 percent of high school students in 2014. Percentages for any flavored or unflavored *non-fat* milks were 79 percent for middle school and 85 percent for high school students.

- *Flavored* low- or non-fat milks were available to approximately three-fifths of secondary students, with higher non-fat than low-fat flavored milk availability. Specifically, flavored *low-fat* milk was available to 59 percent of middle school and 62 percent of high school students in 2014 (rates had significantly decreased since 2012 for both middle and high schools; $p<.001$). Flavored *non-fat* milk was

available to 67 percent of middle school and 77 percent of high school students.

- In 2014, availability of some form of fruit or vegetable was essentially universal through the National School Lunch Program meal. Ninety-eight percent of middle school students and 99 percent of high school students were able to access fresh fruits, while 88 percent and 93 percent, respectively, could access dried or canned fruit. Vegetables were available for 99 percent of students at both middle and high schools in 2014.

- Availability of whole grains increased to almost universal availability, from 2007 to 2014 for middle school students (81% to 97%; p<.001) and high school students (90% to 97%; p<.01).

- At least 80 percent of secondary school students were able to access pre-made main course salads in 2014 (81% of middle school and 84% of high school students). Only 42 percent of middle school and 48 percent of high school students had a salad bar available, however, and salad bars have the potential to increase students' fruit and vegetable consumption.

- Low-fat snacks[d] were available to 86 percent of middle school and 83 percent of high school students in 2014 (a significant increase from 2013 levels of 70% and 69% of middle and high school students, respectively; p<.001).

- Foods with lower nutritional value that were served as part of the National School Lunch Program meal continued to be available to some middle and high school students, but substantial decreases were found. Availability of french fries[e] decreased by more than half, from 48 percent in 2007 to 22 percent in 2014 for middle school students (p<.001) and from 61 percent to 22 percent for high school students (p<.001).

- The availability of regular fat and sugary snacks[f] also decreased substantially from 2007 to 2014 for both middle school students (from 61% to 34%; p<.001) and high school students (from 65% to 26%; p<.001). Note that in 2014 middle school students had significantly higher availability of regular fat and sugary snacks than did high school students (p<.05).

- Pizza remained almost universally available for secondary students in 2014 (99% of middle school and 97% of high school students). However, the types of pizza available showed significant changes over time. *Healthier pizza* (e.g., whole wheat crust, lower-fat versions) was available for 89 percent of middle and 91 percent of high school students in 2014 (a significant increase for both grades since 2011 when data were first collected; p<.001). In contrast, *regular pizza* was available to 39 percent of middle school and 35 percent of high school students in 2014, down from 73 and 74 percent in 2011 for middle and high school students, respectively (a significant decrease for both grades; p<.001).

School Food Policy Environment

- The Alliance for a Healthier Generation has developed a framework for improving the total school health environment, known as the Healthy Schools Program.[24] Areas of focus include policy and systems; school meals; competitive food and beverage options; health education; employee wellness; physical education; and student wellness. The Healthy Schools Program provides a variety of resources and tools to support and encourage changes designed to improve school health. In 2014, 24 percent of middle school students and 27 percent of high school students attended schools that were participating[g] in the program.

[d] Any one or more of low-fat salty snacks (e.g., pretzels, baked chips, other low-fat chips); low-fat cookies, crackers, cakes, pastries, or other low-fat baked goods; low-fat or non-fat ice cream, frozen yogurt, sherbet, or yogurt.

[e] The full wording of the questionnaire item was "deep-fried fries (including fries that are just reheated)."

[f] Any one or more of candy; salty snacks that are not low in fat, such as regular potato chips; cookies, crackers, cakes or other baked goods that are not low in fat; ice cream or frozen yogurt that is not low in fat.

- The USDA initiative Team Nutrition offers a wide variety of resources to schools to improve nutrition choices available on school grounds and to improve nutrition education, ranging from fact sheets and education materials for students, to classroom and school-wide events, to competitive grant initiatives at the state level.[25] The percentage of students attending high schools that reported participation in Team Nutrition[g] did not change significantly from 2007 to 2014 (at 36% in 2014). However, the percentage of students attending middle schools participating in Team Nutrition significantly decreased from 40 percent in 2007 to 23 percent in 2014 ($p<.001$).

- The percentage of students who were in schools that had the school system as the food service provider remained stable (76% for middle school and 78% for high school students). Also remaining statistically stable was the percentage of students attending schools where food service was provided by a food service management company (22% for both middle and high school students).

- Decisions about menus and food service issues continued to be made primarily at the district level. In 2014, 79 percent of both middle and high school students attended schools with primarily district-level decision-making.

- There has been a clear trend toward schools sharing information regarding school menus with parents and students. The percentage of middle and high school students attending schools that provided menus to students significantly increased over time: from 90 percent in 2007 to 96 percent in 2014 for middle schools ($p<.01$), and from 85 percent to 94 percent for high schools ($p<.001$). Providing menus to parents increased for middle school students from 83 percent in 2007 to 95 percent in 2014 ($p<.001$). The rate for high school students increased from 80 percent in 2007 to 91 percent in 2014 ($p<.001$).

- Providing nutrition information to students also significantly increased over time. Such provision rose from 56 percent in 2007 for both middle and high school students to 68 percent in 2014 for middle school students ($p<.05$) and 72 percent for high school students ($p<.001$). The percentage of students attending schools that provided nutrition information to parents also significantly increased for both middle and high school students (from 50% for both middle and high school students in 2007 to 66% for middle school and 70% for high school students in 2014; $p<.001$).

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[g] For both the Healthy Schools Program and Team Nutrition, administrators were asked, "Does your school participate in [program name]?" without specific detail on type of participation. Readers should be aware that participation can mean different things for different schools.

Nutrition: Competitive Foods and Beverages

Competitive foods are so-designated because with the School Breakfast Program and the National School Lunch Program, though students must pay to obtain them. There can be a number of possible venues for competitive foods on school grounds, including vending machines, school or student-run stores and snack bars/carts. School cafeterias can also provide a venue for competitive foods when individual items are available for à la carte sale.

In June 2013, the USDA published the interim final rule governing school competitive venue nutrition environments as authorized by The Healthy, Hunger-Free Kids Act of 2010.[20] This rule, known as Smart Snacks, provided standards for all foods and beverages served and sold in schools participating in the National School Lunch Program and School Breakfast Program, including items sold in vending machines, school stores and as à la carte purchases. Smart Snacks standards were to be fully implemented by the beginning of the 2014-15 school year, meaning that schools had approximately 3-6 months to implement them past the period covered in this volume.

The results presented below indicate that as of 2014, competitive foods and beverages remained widely available in both middle and high schools. While the availability of some less healthy competitive items (such as regular soft drinks, high-fat milks, and french fries) decreased significantly for both middle and high school students, the availability of healthier competitive items (such as salad bars and whole grains) had not significantly increased.

Key Findings

Here are the key findings on competitive foods in the nation's public secondary schools from 2007 to 2014.

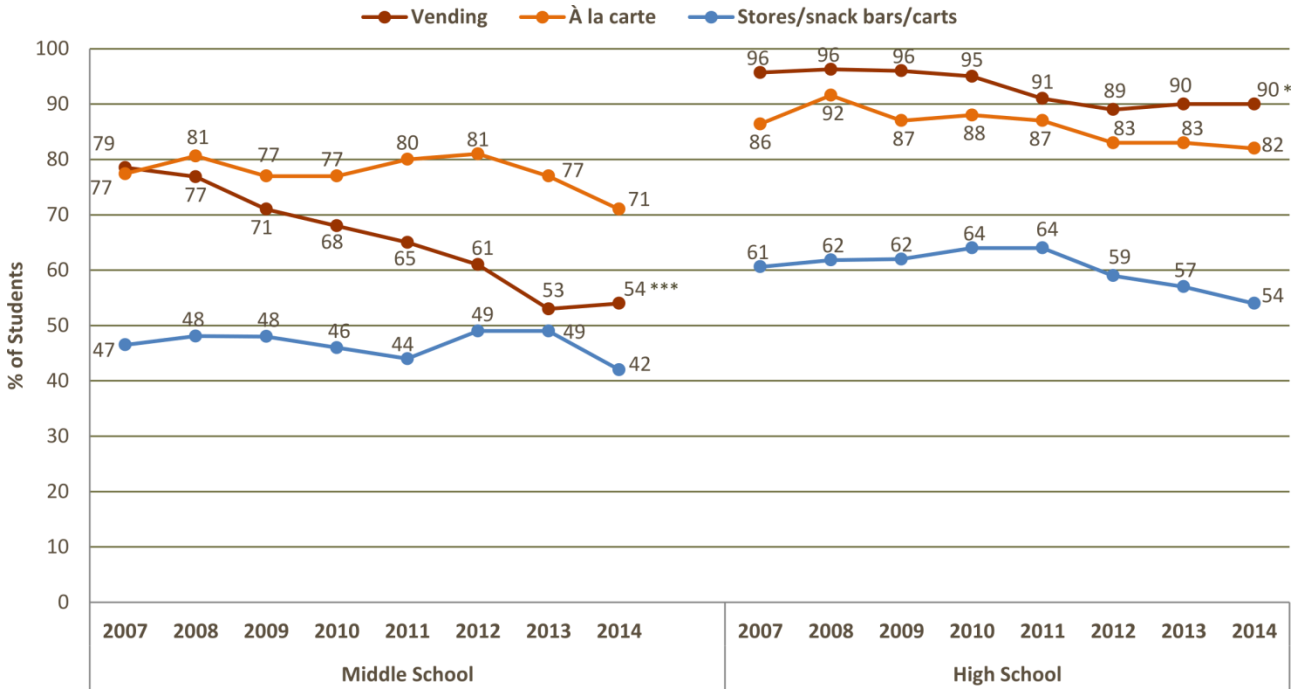
Competitive Food and Beverage Venue Availability

- As shown in Figure 4, the most common competitive food and beverage venue for middle school students was à la carte sales in the cafeteria, available to 71 percent of middle school students in 2014 (statistically unchanged from 2007 levels). The availability of stores or snack bars/carts for middle school students also remained statistically unchanged (42% in 2014). The availability of vending machines in middle schools decreased quite substantially from 79 percent in 2007 to 54 percent in 2014 ($p<.001$).

- In 2014, the most common competitive venue for high school students was vending machines. Vending machine availability for high school students decreased significantly from 96 percent in 2007 to 90 percent in 2014 ($p<.05$). Availability of à la carte sales in the cafeteria for high school students remained stable at 82 percent. Availability of stores/snack bars/carts for high school students was at 54 percent in 2014—not significantly down from the 61% level observed in 2007; but as Figure 4 shows, there does appear to be a gradual decline since 2011. Availability of all competitive venues was significantly higher for high school students than for middle school students ($p<.01$).

- Availability of both à la carte and vending machines differed significantly by school SES in 2014 ($p<.05$). À la carte sales were available to 58 percent of students in low-SES middle schools vs. 80 percent in high-SES middle schools. In high schools, à la carte sales were available to 65 percent of students in low-SES schools vs. 93 percent in high-SES schools. Vending machines were available to 45 percent of middle school students in low-SES schools vs. 61 percent in high-SES middle schools. In high schools, vending machines were available to 86 percent of students in low-SES schools vs. 94 percent of students in high-SES schools.

FIGURE 4 Trends in the Percentage of Students Attending Schools with Competitive Venues, 2007-2014



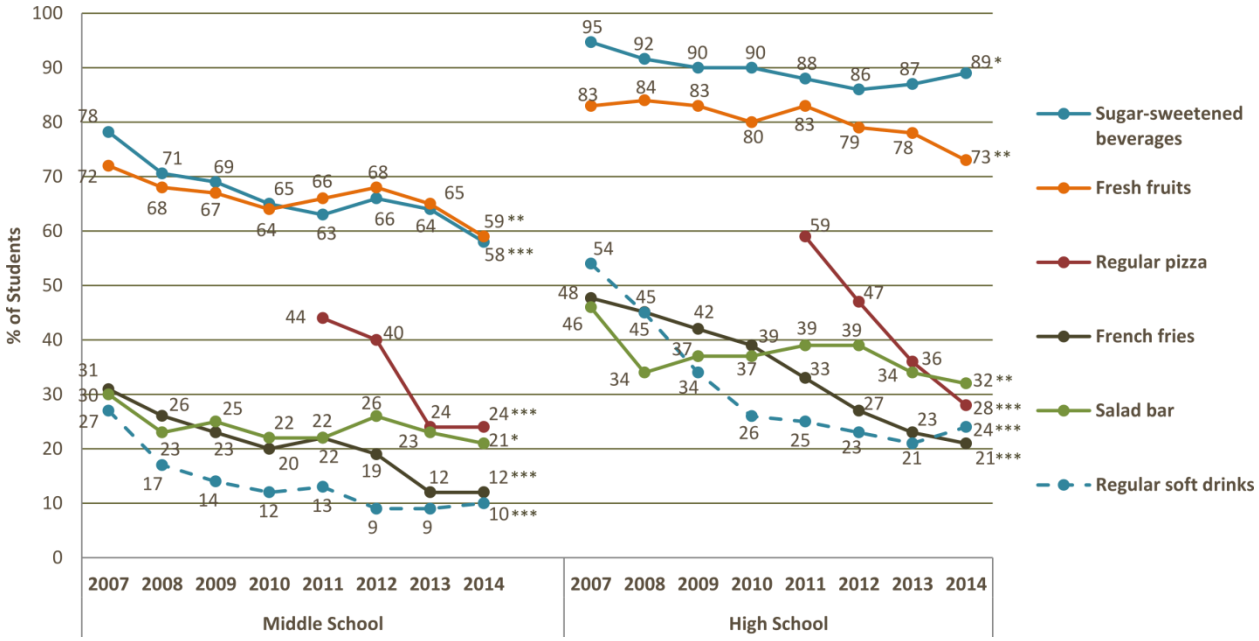
*p<.05; ***p<.001 (significance level of differences between 2007 and 2014).
Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

Availability of vending machines decreased significantly between 2007 and 2014 for both middle and high school students. However, the availability of all types of competitive venues remained high, particularly for high school students.

- Both à la carte and vending machine availability were significantly higher in 2014 for students in predominately White than majority Black middle and high schools. À la carte sales were available to 79 percent of students in predominately White vs. 45 percent of students in majority Black middle schools (p<.001); respective percentages for high school students were 88 percent vs. 59 percent (p<.01). Vending machines were available to 69 percent of students in predominately White vs. 43 percent of students in majority Black middle schools (p<.01); respective high school level percentages were 95 percent vs. 79 percent (p<.01).

- A wide variety of food and beverage availability measures will be discussed below; trends for selected items are presented in Figure 5. For most measures (excluding high-fat milks, regular soft drinks in stores/snack bars/carts, and regular pizza), availability was significantly higher for high school students than for middle school students (p<.05). Such differences are not surprising given the findings above showing that overall competitive venue availability was significantly higher for high school students than middle school students.

FIGURE 5 Trends in the Percentage of Students having Selected Items Available in Any Competitive Venue in the School, 2007-2014



Competitive venues include vending machines, school/student store or snack bars/carts, and à la carte sales at lunch.
**p<.01; ***p<.001 (significance level of differences between first and most recent year of data reported).
Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

Encouraging decreases between 2007 and 2014 were observed in competitive venue availability of regular soft drinks, regular pizza, and french fries for both middle and high school students. Decreases to a considerably lesser degree were also observed for overall sugary drinks.

Beverage Availability in Competitive Venues

- The availability of most beverage categories decreased significantly over time for both middle and high school students. The wide-spread decreases were likely related to the observed decrease in vending machine availability, particularly in middle schools.

- The 2014 availability of IOM-approved beverages (water, 100% fruit or vegetable juice, and non-fat or 1% milk) in competitive venues was very high for middle school (86%) and high school students (98%). Although these levels remained high, they actually had decreased significantly from 2007 levels of 96 and 100 percent for middle and high school students, respectively (p<.05).

- In 2014, 95 percent of middle school and 96 percent of high school students had access to free, potable drinking water at lunchtime when à la carte sales would occur. Drinking fountains in other school locations were reported as follows: approximately 80 percent of students had access to drinking fountains in gymnasium/locker rooms; approximately 95 percent had drinking fountain access in hallways near classroom areas. Fountain availability in other non-cafeteria school locations was 39 percent for middle school students and 51 percent for high school students.

- Availability of all sugar-sweetened beverages, including regular soft drinks, sports drinks and high-calorie fruit drinks that are not 100% juice, decreased from 78 percent in 2007 to 58 percent in 2014 for middle school students ($p<.001$) and considerably less—from 95 percent to 89 percent—for high school students ($p<.05$).

- Importantly, the availability of regular soft drinks in any competitive venue decreased dramatically among both middle and high school students: from 27 percent in 2007 to 10 percent in 2014 for middle school students, and from 54 percent to 24 percent for high school students ($p<.001$).

- Decreases in regular soft drink availability occurred across different types of competitive venues for high school students for whom availability via à la carte sales in the cafeteria dropped 6 percentage points to 4 percent in 2014 ($p<.01$), availability via stores or snack bars/carts dropped 8 percentage points to 9 percent ($p<.01$), and availability via vending machines dropped 32 percentage points to 19 percent ($p<.001$).

- Substantial decreases in the availability of any competitive venue milks (regardless of fat level) were seen across the secondary school environment. Availability of high-fat milks (flavored or unflavored) decreased by half—from 48 percent in 2010 (the first year data were available) to 24 percent in 2014 for middle school students, and from 57 percent to 28 percent for high school students; $p<.001$).

- In 2014, any low-fat milks (flavored or unflavored) were available in at least one competitive venue for 58 percent of middle school and 71 percent of high school students (comparative 2010 levels were 69% and 79%; $p<.05$).

- In 2014, flavored or unflavored non-fat milk availability levels were similar to those for low-fat milks at 51 percent for middle school and 67 percent for high school students (a significant decrease for middle school only, dropping from 63% in 2010; $p<.01$).
- Between two-fifths and two-thirds of secondary students had *flavored* low- or non-fat milks available in 2014: 43 percent of middle school students had low-fat flavored milks available and 46 percent had non-fat flavored milks. At the high school level, the percentage of students with low- and non-fat flavored milks was 54 percent and 63 percent, respectively. Availability of both low-fat and non-fat flavored milk had decreased significantly for middle school students ($p<.05$); availability of low-fat flavored milk also decreased significantly for high school students ($p<.01$).

Food Availability in Competitive Venues

- The availability of fresh fruit in competitive venues decreased significantly ($p<.01$) from 2007 to 2014 for both middle school and high school students—a change in the wrong direction. In 2007, 72 percent of middle school and 83 percent of high schools students could obtain fresh fruit from at least one competitive venue. By 2014, only 59 percent of middle school and 73 percent of high school students could do so.

- Availability of vegetables and whole grains in competitive venues did not change significantly from 2007 to 2014. In 2014, 56 percent of middle school and 67 percent of high school students had vegetables available in competitive venues; at least 55 percent of middle school and 68 percent of high school students had whole grains available. (The availability of whole grains was measured only in à la carte sales.)

- In 2014, 52 percent of middle school and 61 percent of high school students had pre-made salads available; but only 21 percent of middle school and 32 percent of high school students had salad bars available. Availability of both pre-made salads and salad bars had significantly decreased since 2007; $p<.05$)—

another change in the wrong direction. (The availability of salad bars was measured only in à la carte sales.)

- Competitive venue fresh fruits and vegetables were predominately offered through à la carte sales in the cafeteria in 2014. While 56 percent of middle school and 71 percent of high school students had fresh fruits available through à la carte cafeteria sales in 2014, only 13 percent of middle school and 20 percent of high school students had fresh fruits available through stores or snack bars/carts; and only 3 percent of middle school and 5 percent of high school students had access to fresh fruits in vending machines.

- Fifty-three percent of middle school and 66 percent of high school students had vegetables available through à la carte cafeteria sales. In contrast, only 11 percent of middle school and 15 percent of high school students had vegetables available through stores or snack bars/carts. Only 2 percent of middle school and 5 percent of high school students had access to vegetables in vending machines.

- By 2014, the availability of competitive venue low-fat snacks[h] remained quite high for both middle and high school students, although rates had significantly decreased from 2007 to 2014 ($p<.05$): from 85 percent to 76 percent for middle school students, and from 95 percent to 90 percent for high school students.

- Less healthy foods continued to be available to students in competitive venues, although some improvements were observed. The availability of french fries decreased significantly from 31 percent in 2007 to 12 percent in 2014 for middle school students ($p<.001$), and from 48 percent to 21 percent for high school students ($p<.001$). The availability of regular fat and sugary snacks[i] also significantly decreased from 71 percent in 2007 to 46 percent in 2014 for middle school students ($p<.001$), and from 83 percent in 2007 to 64 percent in 2014 for high school students ($p<.001$). The availability of regular pizza (vs. healthier pizza, such as whole wheat crust or low-fat pizza) decreased substantially, dropping from 44 percent in 2011 to 24 percent in 2014 for middle school students ($p<.001$) and from 59 percent to 28 percent for high school students ($p<.001$). In contrast, the availability of healthier pizza remained stable for middle school students at 51 percent, and increased for high school students from 55 percent in 2011 to 64 percent in 2014 ($p<.05$). ----

- There are important disparities in the availability of more healthy foods in competitive venues related to school socioeconomic status. For both middle and high school students, the availability of fresh fruits, vegetables, salads and whole grains was significantly lower for students in low-SES schools than for students in high-SES schools ($p<.001$). However, some less healthy foods (french fries for both middle and high school students, and regular pizza for high school students) were also less likely to be available to students in low-SES schools than those in high-SES schools ($p<.05$). These differences are likely due to the previously discussed differences in overall competitive venue availability associated with school SES.

- Commercial fast foods[j] in either competitive venues or the lunch meal were available to 18 percent of middle school and 29 percent of high school students in 2014 (reflecting a significant decrease for middle school students from 27% in 2009, the first year these data were collected; $p<.01$).

[h] Any one or more of low-fat salty snacks (e.g., pretzels, baked chips, other low-fat chips); low-fat cookies, crackers, cakes, pastries, or other low-fat baked goods; low-fat or non-fat ice cream, frozen yogurt, sherbet, or yogurt.

[i] Any one or more of candy; salty snacks that are not low in fat, such as regular potato chips; cookies, crackers, cakes or other baked goods that are not low in fat; ice cream or frozen yogurt that is not low in fat.

[j] Any availability of food from pizza places, sandwich or sub shops, or fast food chains during a typical week.

School Policies on Competitive Foods and Beverages

- Approximately 60 percent of both middle and high school students attended schools where competitive venue prices were reported to be set to encourage consumption of healthier beverages and foods[k] in 2014. These rates were generally stable over time.

- School administrators were asked if their school district had any restrictions on items sold to students as fundraisers. Approximately one-third of students (31% of middle school and 39% of high school students) attended schools where policy was reported to follow state or district wellness guidelines. Only 17 percent of middle school students and 25 percent of high school students attended schools where the policy prohibited "foods of minimal nutritional value (soft drinks, candy, and gum)." Further, only 19 percent of middle school and 24 percent of high school students attended schools prohibiting sales of soft drinks for fundraisers. Schools with a policy specifying "only healthy foods allowed" were attended by just 10 percent of middle school and 12 percent of high school students (a significant decrease for middle school students from 17% in 2010; $p<.05$).

- School administrators were also asked if mobile vendors (like those operating hot dog carts or ice cream trucks) were prohibited from selling food or beverages on school grounds during school hours. Responses indicated that 64 percent of middle school and 69 percent of high school students attended schools with such restrictions in 2014, a significant decrease at the middle school level from 78 percent in 2010 ($p<.01$).

[k] School administrators were asked "To what extent has your school or school district set food prices (in vending machines, stores, à la carte) with the intent of encouraging students to eat healthier foods (e.g., fruits, vegetables, low-fat foods)?" A similar question asked to what extent the school or district set beverage prices (e.g., for bottled water, low-fat milk, sugar-free beverages) to encourage students to drink healthier beverages.

Awareness and Preparation for New Competitive Venue Nutrition Standards

As noted previously, USDA Smart Snacks nutrition standards for foods and beverages sold through competitive venues in schools participating in federal reimbursable meal programs were not implemented until approximately 3-6 months following the collection of data reported in this volume. During the time of 2014 data collection, however, many schools were in the process of either preparing to implement, or actually implementing the forthcoming standards.

- Ninety-eight percent of both middle and high school students attended schools that participated in either the National School Lunch Program or the School Breakfast Program, making the schools subject to the forthcoming standards. Further, almost all students attended schools with at least one competitive venue (91% of middle school and 99% of high school students). Thus, Smart Snacks standards will affect the foods and beverages sold in competitive venues for the overwhelming majority of U.S. secondary students.

- Approximately one-third of both middle and high school students attended schools that reported having either no or only a little familiarity with the Smart Snacks nutrition standards.

- Some changes had already been made to comply with the Smart Snacks nutrition standards in schools attended by 54 percent of middle school and 48 percent of high school students. In schools that had not made any changes at the time of data collection, changes for the 2014-15 school year were being planned in schools attended by an additional 14 percent of middle school and 23 percent of high school students.

- Ten percent of middle school students and 4 percent of high school students attended schools that incorrectly reported they would

not be subject to Smart Snacks nutrition standards. These schools did participate in either the National School Lunch Program or School Breakfast Program, and sold foods or beverages to students in competitive venues (thus making them subject to the new standards).

* * *

Nutrition standards for competitive beverages vary based on grade level.[26] All schools are allowed to sell plain water, unflavored low-fat milk, flavored or unflavored non-fat milks, and fruit or vegetable juices with no added sweeteners. At the middle school level, beverages must be caffeine free and contain no more than 12 ounces as packaged. At the high school level, calorie-free beverages can be sold in up to 20-ounce portions; lower-calorie beverages can be sold containing up to 40 calories per 8 ounces or 60 calories per 12 ounces (sold in 12-ounce portions). In 2014 (3-6 months prior to Smart Snacks standards implementation):

- Forty-seven percent of middle school students attended schools where all competitive venue beverages were caffeine free (41% of high school students also did so, although caffeinated beverages would be allowed at the high school level).

- Almost half (48%) of middle school students attended schools meeting the middle school 12-ounce beverage portion size restriction (37% of high school students attended schools meeting this restriction).

- One-third (33%) of high school students attended schools where beverages met the additional high school lower-calorie beverage requirement option for calories per ounce and portion size.

* * *

Nutrition standards for competitive foods are the same for all grade levels.[27] In 2014 (3-6 months prior to standard implementation):

- Approximately half of all middle and high school students attended schools that met the following standards for both competitive snack and à la carte entrée items: 1) All foods must be a fruit, vegetable, whole grain, protein or dairy food (53% of middle school and 49% of high school students). 2) Foods may contain no transfats (48% of middle school and 51% of high school students). 3) Foods may contain no more than 35 percent total calories from fat (50% of middle school and 49% of high school students. 4) Foods may contain no more than 10 percent total calories from saturated fat (46% of both middle and high school students).

- Approximately one-third (34%) of middle school students and two-fifths (40%) of high school students attended schools where competitive *snack* items met the standards specifying less than 230mg of sodium, and less than 200 calories.

- Slightly higher percentages of middle and high school students attended schools that met the following standards specific to *à la carte entrée* items: contain less than 480mg of sodium and less than 350 calories (36% and 35% of middle school students, respectively; 46% and 44% of high school students).

In-School Marketing, Including Exclusive Contracts

- Exclusive beverage contracts are typically multiyear contracts that grant a supplier sole rights to sell beverages on school grounds and, in turn, generate revenue for schools. Among middle schools, the percentage of students attending schools with exclusive beverage contracts declined from 67 percent in 2007 to 47 percent in 2014 ($p<.001$). A corresponding decline occurred in the percentage of middle school students who attended schools that received a percentage of contract sales, from 54 percent in 2007 to 32 percent in 2014 ($p<.001$).

- The percentage of high school students attending schools with an exclusive beverage contract also decreased significantly from 74

percent in 2007 to 63 percent in 2014 ($p<.05$), and the percentage of high school students attending schools that reported receiving a specified percentage of sales from the existing contract decreased from 64 percent to 49 percent ($p<.01$). Exclusive beverage contracts and all related outcomes were significantly more likely for high school than middle school students ($p<.05$).

- In 2014, regular soft drinks were sold under an existing exclusive beverage contract in schools attended by 10 percent of middle school and 17 percent of high school students. At the high school level, the percentage had decreased by about half from the 2008 rate of 37 percent ($p<.001$). (The first year this item was included in the study was 2008.)

- For food vending revenue, school administrators first confirmed if food vending machines were available to students and if a company such as a vending company or soft drink/beverage supplier sold food items in vending machines. The percentage of students attending schools that received revenue from food vending machines decreased significantly at the high school level from 46 percent in 2007 to 36 percent in 2014 ($p<.05$). Similar decreases (although not significant) were observed at the middle school level (from 21% of students in 2007 to 16% in 2014). Rates were significantly higher for high school than middle school students ($p<.001$).

- The percentages of middle and high school students exposed to advertising and promotion of soft drinks and/or items from fast-food restaurants remained generally stable. Rates for middle school students ranged from 0 percent for textbook covers/menus and posters to 14 percent for sponsorships. Rates for high school students ranged from 1 percent for textbook covers/menus to 25 percent for sponsorships. Over time, significant decreases were observed among high school students in exposure to exclusive beverage contract ads, dropping from 17 percent in 2007 to 9 percent in 2014 ($p<.05$). The percentages of high school students exposed to sponsorships and posters were significantly higher than for middle school students ($p<.05$).

Physical Activity and Physical Education

Schools have historically played an important role in facilitating physical activity for their students during the school day.[28] However, physical education and other opportunities for activity, such as walking or biking to school, have been increasingly difficult to sustain due to competing demands for school time and resources as well as school siting choices that have been made. The importance of maintaining and improving support for these activities has been repeatedly emphasized.[29-33]

Our results show little change from 2007 to 2014 in participation in physical education, intramural and varsity sports, and walking or biking to school. In contrast, significant *increases* were observed in areas of physical fitness testing and body mass index (BMI) assessment relative to when data were first collected in 2007. Important differences remain evident by school SES and predominant race/ethnicity of the student body.

Key Findings

The following section describes key findings from 2007 to 2014. Trends for selected measures are presented in Figure 6.

Physical Education Requirements and Participation

- Overall, the percentage of secondary students attending schools that *required* physical education (PE) at their grade level did not change significantly from 2007 to 2014. In addition, the percentage of students who *participated* in PE overall did not change significantly since 2007. Requirements and participation rates were markedly different for middle and high school students. In 2014, PE was required for 79 percent of students in middle schools but only 36 percent of students in high schools (p<.001). Following suit, 87 percent of middle school students were reported to take PE in 2014, whereas only 52 percent of high school students were reported to have done so (p<.001).

- Students attending high-SES secondary schools were more likely to attend schools that required PE compared to students in mid-SES and low-SES secondary schools. The percentage of students attending high schools that required PE was 51, 30 and 27 in high-, mid- and low-SES schools, respectively (p<.01). Percentages in middle school students were 89, 74, and 75 in high- mid- and low-SES schools, respectively (p<.05).

- While overall requirements and participation levels generally did not change significantly from 2007 to 2014, the percentage of students attending low-SES high schools that *required* PE decreased significantly (42% in 2007 vs. 27% in 2014; p<.05).

- Reported *participation* in PE also was significantly lower for students attending low-SES high schools compared to high-SES high schools. In 2014, 45 percent of high school students in low-SES schools participated in PE compared with 61 percent of high school students at high-SES schools (p<.01).

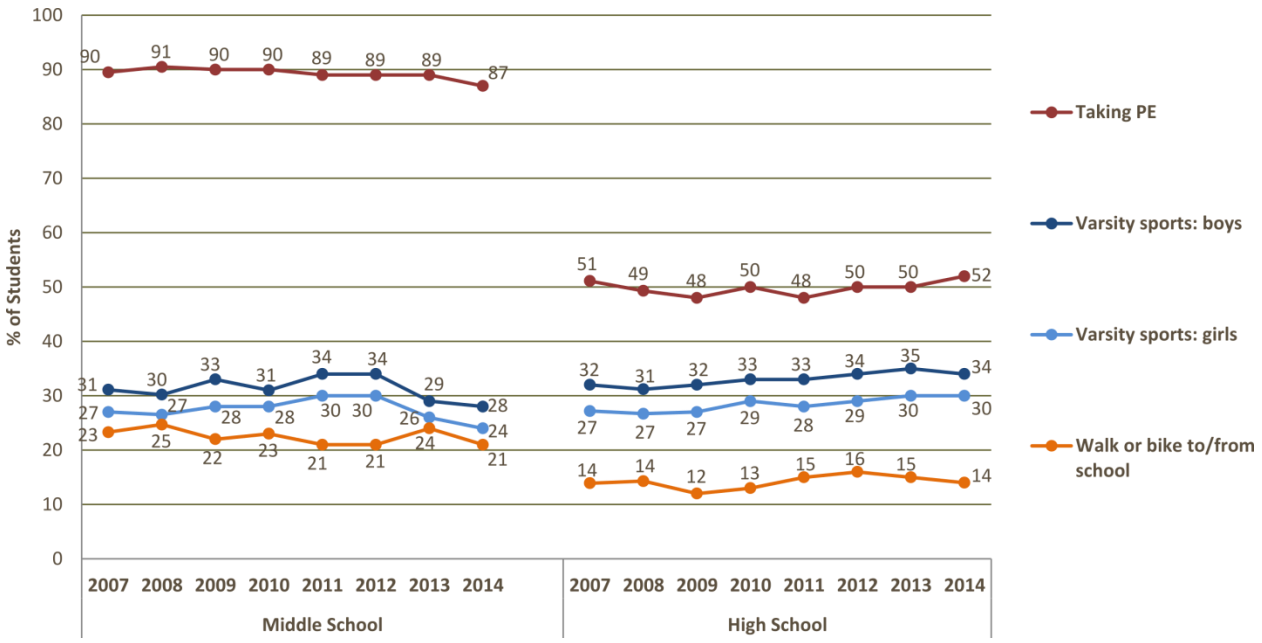
- Participation in PE in middle school was also significantly lower for students in majority Latino schools compared to students in predominantly White middle schools. Ninety percent of students attending predominately White middle schools took PE versus 81 percent of students at majority Latino middle schools (p<.05).

- Participation in PE at the high school level was also significantly lower for students in majority Black high schools (41%) compared to students in predominantly White high schools (58%; p<.05).

Minutes and Weeks of PE

- There were dramatically different levels of PE participation time between middle and high school. During the 2014 school year, the average number of minutes of PE per week was 139 minutes for middle school students and 92 minutes for high school students (p<.001). (This average represents the mean number of minutes across all target grade students and all weeks during the school year, regardless of whether any particular student took PE for part or all of the school year.) The average number of weeks of PE during the school year was 25 weeks for middle school students and 15 weeks for high school students, again a significant difference (p<.001). These estimates were similar to the estimates in 2011, the first year these estimates were calculated.

FIGURE 6 **Trends in the Percentage of Students Participating in Various Forms of Physical Activity, 2007-2014**



Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

Participation rates for both middle and high school students in various forms of physical activity remained essentially flat and quite low over the 2007 to 2014 time interval.

Participation in Sports Programs

- Reported participation in *interscholastic or varsity sports* remained statistically unchanged compared with rates seen in 2007 for both boys and girls. In 2014, 28 percent of boys and 24 percent of girls in middle school were reported to participate in interscholastic/varsity sports. Varsity sports participation rates in high school were significantly *greater* than those in middle school ($p<.01$): 34 percent for boys and 30 percent for girls in 2014). While not statistically significant, both boys' and girls' participation in varsity sports appears to have trended up slightly at high school level; but not at middle school level, where participation of both genders appears to be down some since 2012.

- Reported participation in *intramural sports or physical activity clubs* in 2014 also remained statistically unchanged when compared with rates seen in 2007 for both girls and boys. In 2014, 23 percent of middle school boys and 19 percent of middle school girls were reported to participate in intramural sports or physical activity clubs. Participation in intramural sports or physical activity clubs was significantly lower in high school than in middle school for both boys and girls ($p<.001$). In high school, only 13 percent of boys and 11 percent of girls were reported to participate in intramural sports or physical activity clubs in 2014.

- In both middle schools and high schools, students attending low-SES schools were significantly less likely than students in mid- and high-SES schools to participate in interscholastic or varsity sports ($p<.05$). This held true for both boys and girls.

- In predominantly White middle schools, the percentage of boys and girls reported to participate in interscholastic or varsity sports was higher compared with students in majority Latino schools ($p<.001$); and generally the percentage of boys in majority Black middle schools has been lower than in predominantly White middle schools, though the difference was not statistically significant in 2014.

- The percentage of girls participating in interscholastic or varsity sports was higher in predominately White middle schools than in majority Black middle schools ($p<.001$).Also, the percentage of boys participating in interscholastic or varsity in majority Black middle schools was higher compared to boys in majority Latino middle schools ($p<.05$).

- At the high school level, students at predominantly White schools had higher rates of interscholastic or varsity sports participation compared with students at either majority Black or majority Latino schools; this was true for both boys and girls ($p<.001$). For example, in 2014 the percent of boys participating in varsity sports was 39% in predominantly White schools vs. 23% in majority Black schools ($p>.001$) and 27% in majority Hispanic schools ($p<.001$).

- Low-SES schools had lower rates of participation in intramural sports or physical activity clubs compared to high-SES schools for middle school girls only ($p<.05$). Predominately White middle schools had higher rates of participation in intramural sports or physical activity clubs compared with majority Latino middle schools for both boys and girls ($p<.01$).

Fees for Participation in Interscholastic or Varsity Sports

- In some schools students need to pay fees in order to participate in interscholastic or varsity sports. We added questions about such fees to see if they might help to explain some of the appreciable SES and racial/ethnic differences in sports participation just discussed. In 2014, 11 percent of middle school students attended schools that required an athletic participation fee for most of the varsity sports offered; an additional 19 percent of middle school students attended schools that required an athletic participation fee but the fee could be waived or

reduced if the student could not afford to pay. The percentage of students attending high schools in 2014 with a required participation fee with no option for a waiver was similar to that observed at the middle school level (14%), and an additional 23 percent attended high schools with required fees but with the potential for waiver/reductions.

- Some schools charged team fees instead of or in addition to athletic participation fees. The percentage of students who attended schools that required additional team fees in 2014 was 6 percent in middle school and 10 percent in high school. In 2014, an additional 12 percent of middle school students attended schools that charged team fees but waived or reduced those fees if the student couldn't afford to pay. About one in five or six high school students (18%) attended schools in 2014 that charged additional team fees with waivers/reductions for financial need.

- Some schools required fees for items such as uniforms and equipment. The percentage of students who attended schools that required such fees was 8 percent in middle school and 9 percent in high school in 2014. An additional 20 percent of middle school and 21 percent of high school students attended schools in 2014 that required uniform/equipment fees but provided waivers/reductions based on ability to pay.

- In 2014, 10 percent of high school students and 6 percent of middle school students attended schools where administrators reported reduced student participation in varsity sports—to at least some extent—due to costs.

- These costs associated with athletic participation may well help to explain the disparities in participation rates that we observed with the SES and racial/ethnic composition of the schools. (We have only two years of data on whether fees are charged and the two years give somewhat conflicting results regarding whether fees are charged or can be waived in schools with different racial/ethnic or SES compositions.)

Walking or Bicycling to School

- The percentage of students who walked or bicycled to school remained unchanged and very low. In 2014, less than a quarter (21%) of middle school students and 14 percent of high school students walked or biked to school. Rates of walking or biking to school were significantly higher among middle school students compared to high school students ($p<.001$).

- Students in low-SES schools were significantly more likely to walk or bike to school than students in mid- or high-SES schools (31% versus 16% and 15% in middle school, and 24% versus 9% and 8% in high school; $p<.001$). More students in majority Black (26%) and majority Latino (42%) middle schools walked or biked to school than did students in predominately White middle schools (11%) ($p<.01$). In high schools the same pattern emerged: a greater percentage of students in majority Latino schools and majority Black schools walked or biked to school compared with students in predominately White schools (42% and 19% vs 6%; $p<.01$).

Physical Fitness Testing and Body Mass Index Assessment

- The percentage of students attending schools that gave any physical fitness tests increased significantly from 2007 to 2014. In 2014, 87 percent of middle school students were in schools that gave any fitness tests (up from 73 percent in 2007; $p<.001$). The corresponding figures for high school were 60 percent in 2014 compared with just 36 percent in 2007 ($p<.001$). Students attending middle schools were significantly more likely to be given fitness tests relative to students in high schools ($p<.001$).

- Students in low- and mid-SES high schools were less likely to attend a school that gave

fitness tests to any students than students who attended high-SES high schools (p<.05). Fifty-six percent of students in low-SES and 54 percent of students in mid-SES high schools attended a school that gave fitness tests to any students compared with 70 percent at high-SES high schools. However, there have been significant increases since 2007 in the percentage of students in low-SES and mid-SES middle and high schools who attended schools that provided testing (p<.01)

- There also was an increase in the percentage of secondary school students who attended schools that measured student body mass index (BMI). For middle school students, 45 percent attended schools in 2014 where at least some students were measured compared to 33 percent in 2007 (p<.01). For high school students, the percentage of students in schools that measured BMI on any students increased from 27 percent in 2007 to 40 percent in 2014 (p<.01). There also was a significant increase in the percentage of students in high schools where *all* students were measured. Relative to 2007, there was more than twice as many high school students in schools where *all* students were measured (from 6% in 2007 to 14% in 2014; p<.01). Rates for middle school students where all students were measured were 30 percent in 2014. The percentage of students attending schools with BMI testing of all students was significantly higher at the middle versus high school level (p<.001). Still, the majority of secondary students were in schools that did not conduct BMI measurements on any students in 2014.

- The percentage of middle and high school students who attended schools that sent the results of fitness and BMI assessments to parents also increased significantly compared to 2007 (p<.01), likely due to the increase in the percentage of students who underwent the tests.

- More than half (58%) of middle school students were at schools that sent *fitness test results* to parents in 2014 compared with 40 percent of high school students (a significant difference; p<.001). More than one-third (35%) of middle school students and about one-fourth (27%) of high school students were at schools that sent *BMI results* to parents (significantly higher at the middle school level; p<.05).

Shared Use of School Facilities: Joint Use Agreements

- The vast majority of middle and high school students (93% and 94%, respectively) attended schools that allowed external organizations and/or individuals to use school grounds or facilities for physical activity or sports programs outside of school hours. These rates were similar to those seen in 2010, when such joint use arrangements were first measured. Although the majority of students attended schools that shared their facilities, students in low-SES schools were significantly less likely to be in schools that allowed this access compared with students in high-SES schools (88% vs. 98% for middle school students and 90% vs. 99% for high school students; p<.01). Students in predominately White middle schools were more likely to be in schools that allowed this access compared with middle school students in majority Black schools (97% vs. 76%) and the same was true in high schools (96% vs. 84%; p<.05)

- The most common time to allow outside groups to use the school's *indoor facilities* was on weekends. About three-quarters (74%) of middle school students attended schools that allowed indoor use on weekends in 2014 while 80 percent of high school students attended such schools. The least common time to allow access was before the school day. Only 10 percent of middle school students attended schools that allowed indoor use before the school day in 2014 while 14 percent of high school students attended schools that allowed this access.

- Similarly for *outdoor facilities and school grounds,* 78 percent and 85 percent of middle and high school students, respectively,

attended schools that allowed access to outside groups on the weekend in 2014. Only 11 percent and 21 percent of middle and high school students, respectively, attended schools that allowed access to outside groups to outdoor facilities and school grounds before school during the week in 2014.

- A number of barriers to shared use have been identified. The greatest barrier cited for students in high school was conflicting demands. Forty percent of high school students attended a school where an administrator reported conflicting demands as a 'great or very great' barrier to shared use in 2014. Liability or legal concerns were the most frequently cited barrier for students in middle school: 26 percent of middle school students attended a school that cited liability or legal concerns as a 'great or very great' barrier in 2014.

- In sum, there was considerable evidence of important disparities in school practices related to student physical activity levels along both racial/ethnic and SES lines. As a result, some of the segments of the student population with the greatest problem of overweight were receiving the least opportunity to increase their levels of physical activity.

Wellness Policies

The Child Nutrition and WIC (Women, Infants, and Children) Reauthorization Act of 2004 required school districts or local education agencies that participate in federally subsidized child nutrition programs (such as the National School Lunch Program and School Breakfast Program) to establish and implement a local school wellness policy by the start of the 2006–07 school year. Our survey found that in 2014, 98 percent of both middle and high school students were in schools that participated in either the National School Lunch or School Breakfast Programs, so the great majority of districts represented in our sample were obliged to establish a wellness policy.

Key Findings

The following section describes key findings in public schools from 2007 to 2014.

Establishing and Implementing a Wellness Policy

In 2014, 75 percent of both middle and high school students attended a school where a wellness policy had been established by either the school or school district. Slightly more than half of secondary students attended schools where an individual had been designated as responsible for wellness policy implementation (56% of middle school and 59% of high school students). However, only 34 percent of both middle and high school students attended schools with a fully developed plan for implementing the wellness policy in 2014.

Specific Goals in the Wellness Policy

- The percentage of students attending schools with explicit wellness goals for physical activity, nutrition education, and foods and beverages available to students remained generally unchanged. Physical activity goals were in place in schools serving 53 percent of middle school and 50 percent of high school students in 2014; nutrition education goals were in place for 48 percent of middle school and 52 percent of high school students. Goals for foods and beverages available to students were in place for 53 percent of middle school and 59 percent of high school students (a significant decrease for middle school students from 67% in 2009; $p<.01$).

- More than two-thirds of both middle and high school students attended schools with specific nutrition guidelines for all foods in 2014: 72 percent of middle and 68% of high school students (representing a significant increase at the high school level compared with 59% in 2007; $p<.05$)

Formal Classroom Instruction in Physical Activity and Nutrition

- Ninety percent of middle school and 95 percent of high school students were offered formal classroom instruction in physical activity, exercise and fitness in 2014 (middle school rates had decreased significantly from 96 percent in 2007; $p<.01$).

- Formal classroom instruction in nutrition and dietary behavior did not change significantly between 2007 and 2014. In 2014, 75 percent of middle school and 87 percent of high school students were offered such instruction.

- Students with the greatest need to improve their exercise levels and diets were the least likely to receive relevant instruction in middle schools. Those in low-SES schools were significantly less likely to receive formal classroom instruction on physical activity, exercise and fitness, than their peers in high-SES schools in 2014 (86% vs. 97%; p<. 01). The findings were similar for instruction on nutrition and dietary behavior (67% in low-SES middle schools vs. 85% in high-SES middle schools; p<.01).

- Availability of formal instruction in physical activity, exercise and fitness, as well as nutrition and dietary behavior, was significantly higher for high school students than for middle school students (p<.05).

Healthy School Recognition

- In 2014, only 4 percent of middle school and 6 percent of high school students attended a school that was certified as a USDA HealthierUS school. Only 3 percent of middle school and 4 percent of high school students attended a school designated as having an Alliance for a Healthier Generation Healthy School Program, according to administrator reports. It should be noted, however, that two-fifths of secondary school students attended schools where the responding administrator did not know if the school had received such certifications or designations.

Concerns and Perceptions of School Administrators

School administrators were asked about their levels of concern for student nutrition, physical activity, and overweight, as well as for the perceived extent of effort directed towards addressing student nutrition and physical activity on the part of both the school and its school district. In general, the levels of concern about student nutrition, physical activity and overweight expressed by school administrators decreased from 2007 through 2014. Levels of concern about student overweight, nutrition and physical activity differed by school SES as is described below.

Key Findings

The following section describes key findings in public schools from 2007 to 2014.

Concern for Student Overweight, Nutrition and Physical Activity

- Less than half of both middle and high school students attended schools where administrators reported that schools should be involved to a "great" or "very great" extent in addressing the problem of childhood obesity (47% of middle school and 42% of high school students). The data for middle school students represent a significant ($p<.01$) decrease from 61 percent in 2011 (the first year such data were collected).

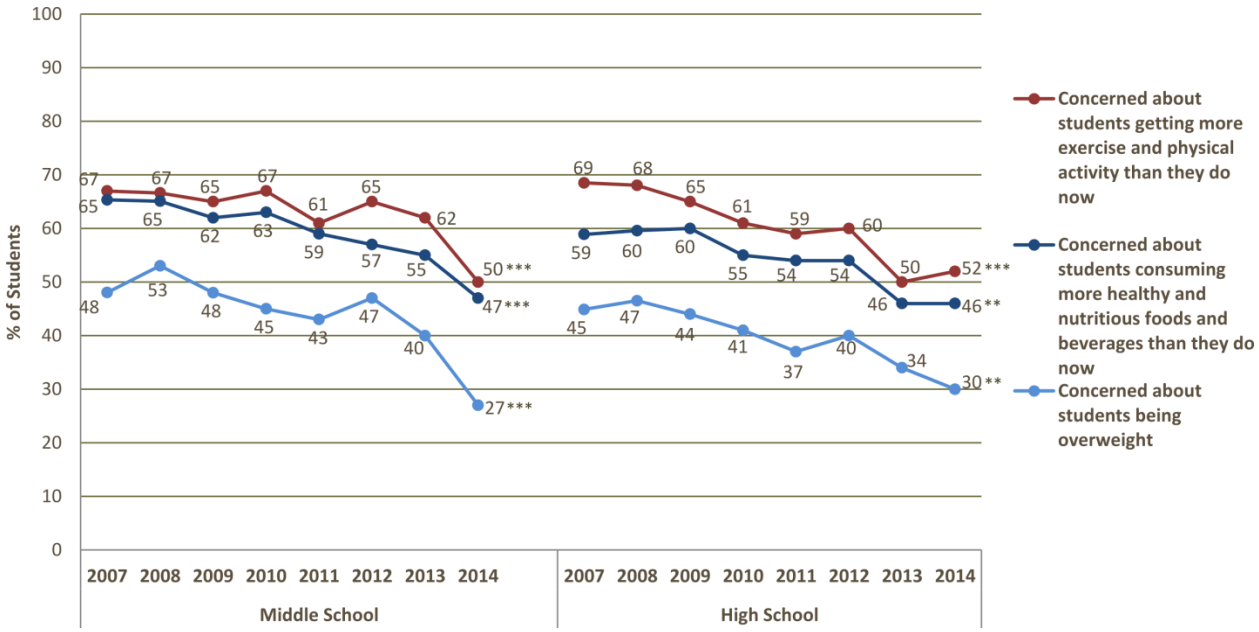
- As shown in Figure 7, administrators reported less concern about students being overweight than about nutrition and physical activity, but reported concern for all three issues significantly decreased since 2007 in schools attended by both middle and high school students ($p<.01$). In 2014, 50 percent of middle school students attended schools where the administrator expressed great or very great concern about student physical activity levels; the corresponding percentage for nutrition was 47 percent; only 27 percent attended schools where the administrator expressed concern about students being overweight. Percentages for high school students were similar at 52 percent, 46 percent and 30 percent for physical activity, nutrition, and overweight, respectively.

- In 2014, middle and high school students attending low-SES schools were significantly more likely than their peers in high-SES schools to have school administrators expressing great or very great concern about student overweight (34% vs. 17% at the middle school level; 35% vs. 19% at the high school level; $p<.01$), as well as concern about student nutrition (61% vs. 38% for middle school; 55% vs. 38% for high school; $p<.05$). At the middle school level, students attending low-SES schools were also significantly more likely than those in high-SES schools to have administrators express great or very great concern about student physical activity levels (66% vs. 37%; $p<.001$). These differences correspond to known differences in the prevalence of student overweight and obesity.

School and School District Efforts to Improve Student Nutrition and Physical Activity

Reported school or school district efforts to improve student nutrition and physical activity remained fairly stable from 2007 to 2014. Approximately half of all middle and high school students attended schools where the school administrator reported efforts being made to improve student nutrition to a great or very great extent at the school district or school level. Roughly half of all middle school students attended schools where such efforts to improve student physical activity at either the school district or school level were reported. Such efforts at the high school level were significantly lower, averaging about 40 percent ($p<.01$). Thus, at the level of schooling where there is the greatest need to increase student physical activity, the least effort seems to have been made.

FIGURE 7 Trends in the Percentage of Students Attending Schools with Principals Who Were Concerned to a "Great Extent" or "Very Great Extent" About Student Overweight, Nutrition, and Physical Activity, 2007-2014



*p<.05; **p<.01; ***p<.001 (significance level of differences between 2007 and 2014).
Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

School administrators consistently showed higher concern for student exercise and physical activity and nutrition than for student overweight, but concern for all outcomes decreased significantly over time.

Next Steps

Since 2007, a number of public secondary schools in the U.S. have made an effort to make healthier foods and drinks more available, but foods that are high in fat, sugar and/or sodium are still readily available in many schools. Clearly, there has been insufficient progress in helping students be active during and after the school day. This report also highlights a number of conditions in middle and high schools that may contribute to disparities in childhood obesity. Our data identify specific policies and practices that, if changed, may help address these disparities and create a healthier school environment for all students.

This will be the last monograph published in this series, because the Foundation's support for the Bridging the Gap program ends in 2015.

Data on Health-Related Policies and Practices

Table 1 summarizes data from 2007 through 2014. All data are weighted to reflect the percentages of public secondary school students nationwide (separately for middle schools and high schools) who were impacted by these practices. Data for additional survey topics and demographic sub-sample comparisons are available at *www.bridgingthegapresearch.org/research/secondary_school_survey*. The statistical significance of the differences observed between years, and of differences between middle schools and high schools in 2014, are provided in the three right hand columns.

TABLE 1 Summary of Health-Related Policies and Practices in Secondary Schools

School Meals	Responses	Grade Level	Year								First v. Last[a]	Next to Last v. Last[b]	MS v. HS 2014[c]
			2007	2008	2009	2010	2011	2012	2013	2014			
Eating breakfast and lunch at school													
Eligibility for free and reduced price lunch	[Average %]	Middle School	47%	48%	49%	51%	52%	52%	56%	57%	***		
		High School	37%	37%	39%	41%	43%	46%	45%	47%	***		***
Students ate breakfast offered by school	[Average %]	Middle School	25%	26%	30%	30%	31%	31%	32%	35%	***		
		High School	20%	18%	20%	23%	22%	23%	25%	27%	**		***
Type of breakfast offered to students:													
…U.S.D.A. School Breakfast Program	Yes	Middle School	79%	82%	84%	80%	78%	77%	78%	80%			
		High School	77%	86%	82%	83%	82%	80%	80%	79%			
…any breakfast	Yes	Middle School	90%	89%	90%	91%	90%	93%	94%	96%	*		
		High School	93%	94%	92%	93%	93%	94%	94%	95%			
School offered breakfast free to all students	Yes	Middle School	--	--	22%	20%	19%	20%	19%	32%	**	***	
		High School	--	--	18%	18%	16%	17%	16%	19%			***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$
[a] Significance of change from first year of data available to the most recent year of data available (2013-14).
[b] Significance of change from 2012-13 to the most recent year of data available (2013-14).
[c] Significance of differences between middle and high school in 2013-14.

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Average full price charged for School Breakfast Program meal													
...as reported	[Average price]	Middle School	$1.10	$1.11	$1.20	$1.27	$1.23	$1.26	$1.30	$1.33	***		
		High School	$1.20	$1.20	$1.24	$1.32	$1.32	$1.39	$1.40	$1.40	***		
...in constant 2014 dollars	[Average price]	Middle School	$1.25	$1.23	$1.32	$1.38	$1.30	$1.30	$1.33	$1.33			
		High School	$1.37	$1.32	$1.37	$1.44	$1.39	$1.43	$1.43	$1.40			
Students allowed to go off-campus at lunch	Yes	Middle School	--	--	--	1%	1%	1%	1%	1%			
		High School	--	--	--	19%	23%	18%	20%	16%			***
On a typical day for lunch, students:													
...each lunch offered by school	Yes	Middle School	73%	72%	73%	74%	73%	72%	70%	70%			
		High School	57%	55%	54%	58%	54%	55%	56%	56%			***
...bring their own lunch	Yes	Middle School	16%	18%	17%	18%	19%	19%	22%	22%	***		
		High School	15%	14%	16%	16%	17%	19%	20%	20%	***		
...go off campus to buy lunch	Yes	Middle School	0%	0%	0%	0%	0%	0%	0%	4%			
		High School	10%	11%	9%	9%	10%	8%	8%	6%			***
...don't eat lunch	Yes	Middle School	6%	6%	5%	5%	5%	5%	6%	5%			
		High School	8%	9%	10%	9%	9%	8%	8%	8%			***
...buy lunch from vending machine or store/snack bar/cart	Yes	Middle School	4%	4%	4%	3%	2%	3%	2%	2%	*		
		High School	8%	9%	8%	6%	6%	6%	5%	6%	*		***
School offered U.S.D.A. National School Lunch Program	Yes	Middle School	90%	92%	93%	90%	87%	86%	82%	84%			
		High School	89%	95%	92%	92%	88%	85%	87%	86%			
School offered lunch free to all students	Yes	Middle School	--	--	10%	9%	6%	6%	7%	12%		*	
		High School	--	--	9%	8%	4%	3%	5%	7%			*
Average full price charged for National School Lunch Program meal													
...as reported	[Average price]	Middle School	$1.84	$1.93	$2.08	$2.05	$1.99	$2.06	$2.14	$2.22	***		
		High School	$2.00	$2.04	$2.17	$2.03	$2.01	$2.08	$2.13	$2.22	**		
...in constant 2014 dollars	[Average price]	Middle School	$2.11	$2.12	$2.29	$2.22	$2.09	$2.12	$2.18	$2.22			
		High School	$2.28	$2.24	$2.39	$2.20	$2.12	$2.15	$2.17	$2.22			
Average length of lunch period	[Time in minutes]	Middle School	31	31	30	31	31	31	32	32			
		High School	34	34	33	34	34	33	34	33	*		

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Response to new USDA school meal standards													
School lunch meal offerings changed as a result of the new standards	Yes	Middle School	--	--	--	--	--	--	93%	90%			
		High School	--	--	--	--	--	--	89%	90%			
If school lunch meal did change, extent to which:													
...students generally seemed to like the new meals	Some, great or very great	Middle School	--	--	--	--	--	--	70%	66%			
		High School	--	--	--	--	--	--	63%	61%			
...students complained at first	Great/very great	Middle School	--	--	--	--	--	--	44%	52%	*	*	
		High School	--	--	--	--	--	--	53%	55%			
...students complained at time of survey	Great/very great	Middle School	--	--	--	--	--	--	11%	18%	*	*	
		High School	--	--	--	--	--	--	18%	18%			
...lunch meals modified in response to student complaints	Great/very great	Middle School	--	--	--	--	--	--	9%	10%			
		High School	--	--	--	--	--	--	12%	13%			
...compared to prior year, students throw away more or less food from school lunch meals	Much less/little less	Middle School	--	--	--	--	--	--	15%	23%	*	*	
		High School	--	--	--	--	--	--	14%	20%			
	About the same	Middle School	--	--	--	--	--	--	44%	46%			
		High School	--	--	--	--	--	--	41%	43%			
	Little more	Middle School	--	--	--	--	--	--	25%	23%			
		High School	--	--	--	--	--	--	24%	21%			
	Much more	Middle School	--	--	--	--	--	--	16%	8%	**	**	
		High School	--	--	--	--	--	--	20%	16%			**
School certified as in compliance with USDA meal standards for target grade surveyed													
	Yes	Middle School	--	--	--	--	--	--	--	85%			
		High School	--	--	--	--	--	--	--	87%			
	In process	Middle School	--	--	--	--	--	--	--	3%			
		High School	--	--	--	--	--	--	--	2%			
	No	Middle School	--	--	--	--	--	--	--	0%			
		High School	--	--	--	--	--	--	--	0%			
	Don't know	Middle School	--	--	--	--	--	--	--	12%			
		High School	--	--	--	--	--	--	--	10%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Compared to last year, NSLP lunches offer a little more or much more…													
…**variety** of fruits and vegetables	Yes	Middle School	--	--	--	--	--	--	--	61%			
		High School	--	--	--	--	--	--	--	62%			
…**amount** of fruits and vegetables	Yes	Middle School	--	--	--	--	--	--	--	55%			
		High School	--	--	--	--	--	--	--	60%			
…whole grain options	Yes	Middle School	--	--	--	--	--	--	--	64%			
		High School	--	--	--	--	--	--	--	68%			
…low-fat dairy products	Yes	Middle School	--	--	--	--	--	--	--	41%			
		High School	--	--	--	--	--	--	--	44%			
…variety of entrée options	Yes	Middle School	--	--	--	--	--	--	--	39%			
		High School	--	--	--	--	--	--	--	45%			
Extent to which the following strategies were used to promote healthier lunch meals:													
…student taste tests	Some, great or	Middle School	--	--	--	--	--	--	--	26%			
	very great	High School	--	--	--	--	--	--	--	39%			**
…student advisory groups	Some, great or	Middle School	--	--	--	--	--	--	--	19%			
	very great	High School	--	--	--	--	--	--	--	29%			**
…promotional signage/events in cafeteria	Some, great or	Middle School	--	--	--	--	--	--	--	47%			
	very great	High School	--	--	--	--	--	--	--	56%			*
…social media (Facebook, Twitter, etc.)	Some, great or	Middle School	--	--	--	--	--	--	--	12%			
	very great	High School	--	--	--	--	--	--	--	16%			
…engagement with PTA or parent groups	Some, great or	Middle School	--	--	--	--	--	--	--	21%			
	very great	High School	--	--	--	--	--	--	--	20%			
…newsletters	Some, great or	Middle School	--	--	--	--	--	--	--	30%			
	very great	High School	--	--	--	--	--	--	--	32%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Beverages and food available through the National School Lunch Program meal													
Sources of free, potable drinking water at lunchtime:													
…existing drinking fountains in cafeteria	Yes	Middle School	--	--	--	--	--	70%	53%	56%	***		
		High School	--	--	--	--	--	75%	60%	58%	***		
…existing drinking fountains near cafeteria	Yes	Middle School	--	--	--	--	--	--	62%	68%			
		High School	--	--	--	--	--	--	69%	70%			
…installed new drinking fountains in cafeteria	Yes	Middle School	--	--	--	--	--	3%	4%	4%			
		High School	--	--	--	--	--	7%	3%	5%			
…water dispenser/pitcher and cups in food line	Yes	Middle School	--	--	--	--	--	11%	12%	12%			
		High School	--	--	--	--	--	15%	13%	16%			
…water dispenser/pitcher and cups elsewhere in cafeteria	Yes	Middle School	--	--	--	--	--	15%	20%	19%			
		High School	--	--	--	--	--	15%	15%	18%			
…water dispenser/pitcher but no cups (students bring bottles)	Yes	Middle School	--	--	--	--	--	2%	3%	2%			
		High School	--	--	--	--	--	3%	3%	3%			
…free, potable drinking water is *not* available in cafeteria	Yes	Middle School	--	--	--	--	--	11%	7%	5%	**		
		High School	--	--	--	--	--	10%	5%	4%	**		
…in schools participating in the National School Lunch Program	Yes	Middle School	--	--	--	--	--	10%	7%	4%	*		
		High School	--	--	--	--	--	9%	4%	4%	*		
…in schools *not* participating in the National School Lunch Program	Yes	Middle School	--	--	--	--	--	16%	8%	7%			
		High School	--	--	--	--	--	21%	9%	9%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Beverages available in National School Lunch Program meals[d]:													
…healthy beverages, including low-/non-fat milks[e]	Some days/	Middle School	98%	98%	96%	96%	97%	98%	98%	97%			
	most or every day	High School	99%	98%	95%	98%	99%	96%	99%	99%			*
…healthier milk types													
…any low-fat milks (flavored or unflavored)	Some days/	Middle School	--	--	--	92%	92%	88%	88%	86%			
	most or every day	High School	--	--	--	92%	94%	89%	89%	89%			
…any non-fat milks (flavored or unflavored)	Some days/	Middle School	--	--	--	73%	76%	79%	83%	79%			
	most or every day	High School	--	--	--	81%	79%	83%	84%	85%			
…any flavored low-fat milks	Some days/	Middle School	--	--	--	88%	86%	70%	58%	59%	***		
	most or every day	High School	--	--	--	87%	86%	69%	62%	62%	***		
…any flavored non-fat milks	Some days/	Middle School	--	--	--	--	--	68%	75%	67%			
	most or every day	High School	--	--	--	--	--	73%	78%	77%			*
…any low- or non-fat milks (flavored or unflavored)	Some days/	Middle School	95%	94%	92%	94%	96%	97%	96%	93%			
	most or every day	High School	93%	94%	92%	95%	97%	95%	97%	97%			*
…sugar-sweetened beverages[f]	Some days/	Middle School	35%	26%	30%	28%	26%	29%	24%	18%	*		
	most or every day	High School	47%	37%	31%	34%	32%	28%	29%	29%	***		**
…sugar-sweetened beverages, revised[g]	Some days/	Middle School	--	--	--	--	--	29%	25%	19%	**		
	most or every day	High School	--	--	--	--	--	31%	32%	30%			**
…whole or 2% milk (flavored or unflavored)	Some days/	Middle School	--	--	--	62%	50%	31%	27%	32%	***		
	most or every day	High School	--	--	--	61%	46%	39%	26%	29%	***		
…other beverages[h]	Some days/	Middle School	39%	33%	32%	32%	30%	21%	22%	15%	***		
	most or every day	High School	50%	39%	35%	39%	30%	21%	28%	27%	***		**
…other beverages, revised[i]	Some days/	Middle School	--	--	--	--	--	31%	33%	24%		*	
	most or every day	High School	--	--	--	--	--	33%	39%	35%			**
…energy drinks	Some days/	Middle School	--	--	--	--	--	--	--	0%			
	most or every day	High School	--	--	--	--	--	--	--	1%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

* $p < .05$; ** $p < .01$; *** $p < .001$

[d] Data reported only for students whose schools participated in the National School Lunch Program.

[e] Any one or more of beverages that have been defined by the Institute of Medicine as healthy beverages for students in all grades: bottled water; 100% fruit or vegetable juice with no added sweeteners; low-fat (1%) or non-fat (skim) milk.

[f] Any one or more of regular soft drinks; sports drinks; and fruit drinks that are not 100% fruit juice and that are high in calories.

[g] Any one or more of regular soft drinks; high-calorie sports drinks; high-calorie flavored waters; and fruit drinks that are not 100% fruit juice and that are high in calories.

[h] Any one or more of diet soft drinks; other no-calorie or very low-calorie beverages; "light" juices.

[i] Any one or more of diet soft drinks; low-calorie (10 calories or less per 8 ounces) sports drinks; other no-calorie or very low-calorie beverages; "light" juices.

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Healthier foods available in National School Lunch Program meals[d]:													
...fruits and vegetables	Some days/	Middle School	99%	100%	100%	99%	100%	99%	100%	99%			
	most or every day	High School	100%	100%	99%	100%	100%	100%	100%	99%			
...fresh fruits	Some days/	Middle School	99%	100%	99%	99%	100%	99%	100%	98%			
	most or every day	High School	98%	99%	98%	99%	100%	99%	99%	99%			
...other fruits (e.g., dried or canned fruits)	Some days/	Middle School	89%	91%	91%	92%	93%	90%	92%	88%			
	most or every day	High School	92%	95%	93%	92%	93%	93%	91%	93%			
...vegetables (e.g., carrot sticks or celery sticks)	Some days/	Middle School	96%	99%	98%	99%	100%	98%	99%	99%			
	most or every day	High School	99%	100%	98%	99%	100%	100%	99%	99%			
...salads	Some days/	Middle School	96%	92%	92%	92%	93%	93%	91%	90%	*		
	most or every day	High School	94%	94%	93%	96%	96%	97%	94%	94%			
...pre-made, main course salads	Some days/	Middle School	86%	83%	83%	79%	82%	82%	80%	81%			
	most or every day	High School	84%	87%	85%	87%	86%	88%	88%	84%			
...salad bar	Some days/	Middle School	48%	41%	44%	43%	40%	41%	41%	42%			
	most or every day	High School	55%	43%	45%	48%	56%	56%	47%	48%			
...whole grains	Some days/	Middle School	81%	87%	90%	90%	95%	94%	97%	97%	***		
	most or every day	High School	90%	92%	91%	92%	96%	97%	97%	97%	**		
...low-fat snacks[j]	Some days/	Middle School	81%	84%	82%	83%	82%	75%	70%	86%		***	
	most or every day	High School	81%	75%	79%	78%	78%	73%	69%	83%		***	
Less healthy foods available in National School Lunch Program meals[d]:													
...french fries	Some days/	Middle School	48%	40%	41%	43%	35%	27%	21%	22%	***		
	most or every day	High School	61%	52%	44%	47%	41%	38%	34%	22%	***	**	
...pizza	Some days/	Middle School	97%	98%	99%	98%	99%	98%	99%	99%			
	most or every day	High School	98%	98%	98%	98%	99%	99%	98%	97%			
...regular pizza	Some days/	Middle School	--	--	--	--	73%	64%	39%	39%	***		
	most or every day	High School	--	--	--	--	74%	63%	48%	35%	***	**	
..."healthier" pizza[k]	Some days/	Middle School	--	--	--	--	75%	74%	92%	89%	***		
	most or every day	High School	--	--	--	--	73%	80%	85%	91%	***	*	

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

* $p < .05$; ** $p < .01$; *** $p < .001$

[d] Data reported only for students whose schools participated in the National School Lunch Program.

[j] Any one or more of low-fat salty snacks (e.g., pretzels, baked chips, other low-fat chips); low-fat cookies, crackers, cakes, pastries, or other low-fat baked goods; low-fat or non-fat yogurt, ice cream, frozen yogurt, sherbet.

[k] For example, pizza with whole wheat crust, lower-fat versions.

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
...regular fat and sugary snacks[l]	Some days/	Middle School	61%	54%	58%	53%	49%	45%	40%	34%	***		
	most or every day	High School	65%	59%	57%	55%	57%	45%	34%	26%	***	*	*
...regular fat and sugary snacks including cheese sticks	Some days/	Middle School	61%	54%	58%	53%	49%	45%	40%	39%	***		
	most or every day	High School	65%	59%	57%	54%	57%	45%	34%	31%	***		*
School food policy environment													
School participated in Team Nutrition	Yes	Middle School	40%	44%	41%	35%	36%	36%	37%	23%	***	***	
		High School	35%	45%	34%	37%	33%	33%	38%	36%			***
	No	Middle School	18%	24%	26%	25%	29%	29%	26%	33%	***	*	
		High School	23%	28%	31%	33%	32%	27%	29%	29%			
	Don't know	Middle School	42%	32%	34%	40%	35%	36%	38%	44%			
		High School	42%	27%	34%	30%	34%	40%	33%	35%			*
School participated in Healthy School Program	Yes	Middle School	--	--	--	--	--	27%	28%	24%			
		High School	--	--	--	--	--	25%	28%	27%			
	No	Middle School	--	--	--	--	--	30%	32%	35%			
		High School	--	--	--	--	--	39%	34%	37%			
	Don't know	Middle School	--	--	--	--	--	43%	41%	41%			
		High School	--	--	--	--	--	37%	38%	36%			
School food service was provided by:													
...school system	Yes	Middle School	81%	79%	79%	79%	79%	81%	76%	76%			
		High School	76%	81%	81%	78%	82%	77%	76%	78%			
...food service management	Yes	Middle School	18%	20%	19%	18%	20%	18%	23%	22%			
		High School	22%	16%	18%	22%	17%	23%	22%	22%			
...other	Yes	Middle School	1%	3%	3%	3%	3%	4%	2%	3%			
		High School	5%	5%	3%	2%	2%	2%	4%	1%	**	**	*

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

* $p < .05$; ** $p < .01$; *** $p < .001$

[l] Any one or more of candy; salty snacks that are not low in fat, such as regular potato chips; cookies, crackers, cakes or other baked goods that are not low in fat; ice cream or frozen yogurt that is not low in fat.

School Meals, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Decisions about menus and food service issues were made by:													
…district	Yes	Middle School	85%	82%	80%	82%	84%	81%	81%	79%			
		High School	84%	79%	81%	81%	76%	79%	75%	79%			
…school	Yes	Middle School	19%	20%	18%	18%	16%	17%	12%	17%			
		High School	24%	31%	23%	23%	26%	21%	18%	21%			
…contractor	Yes	Middle School	12%	14%	14%	13%	13%	13%	14%	11%			
		High School	13%	10%	10%	12%	14%	13%	15%	15%			
…other	Yes	Middle School	3%	6%	4%	5%	4%	3%	3%	5%			
		High School	3%	3%	4%	3%	2%	5%	5%	5%			
School provided menus to:													
…students	Yes	Middle School	90%	92%	91%	96%	95%	96%	95%	96%	**		
		High School	85%	87%	87%	93%	91%	94%	92%	94%	***		
…parents	Yes	Middle School	83%	88%	89%	92%	93%	94%	93%	95%	***		
		High School	80%	81%	82%	86%	86%	90%	90%	91%	***		
School provided nutrition information to:													
…students	Yes	Middle School	56%	64%	61%	58%	58%	64%	70%	68%	*		
		High School	56%	64%	64%	59%	64%	67%	70%	72%	***		
…parents	Yes	Middle School	50%	60%	55%	58%	59%	61%	67%	66%	***		
		High School	50%	57%	53%	56%	59%	59%	67%	70%	***		
Competitive Foods and Beverages	**Responses**	**Grade Level**	**Year**								**First v. Last**	**Next to Last v. Last**	**MS v. HS 2014**
			2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**			
Competitive food and beverage venue availability													
School offered foods or beverages in the following competitive venues:													
…à la carte sales in the cafeteria	Yes	Middle School	77%	81%	77%	77%	80%	81%	77%	71%		*	
		High School	86%	92%	87%	88%	87%	83%	83%	82%			**
…stores or snack bars/carts	Yes	Middle School	47%	48%	48%	46%	44%	49%	49%	42%			
		High School	61%	62%	62%	64%	64%	59%	57%	54%			**
…vending machines	Yes	Middle School	79%	77%	71%	68%	65%	61%	53%	54%	***		
		High School	96%	96%	96%	95%	91%	89%	90%	90%	*		***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Competitive food and beverage availability													
Students have access to drinking fountains in:													
…gymnasium/locker rooms	Yes	Middle School	--	--	--	83%	83%	81%	83%	79%			
		High School	--	--	--	82%	85%	86%	84%	81%			
…hallways near classroom areas	Yes	Middle School	--	--	--	99%	98%	98%	95%	96%			
		High School	--	--	--	97%	97%	97%	94%	93%			
…other non-cafeteria locations at school	Yes	Middle School	--	--	--	47%	45%	39%	40%	39%	*		
		High School	--	--	--	51%	42%	43%	48%	51%			**
Beverages available in competitive venues:													
…healthy beverages, including low-/non-fat milks	Yes	Middle School	96%	96%	93%	95%	89%	90%	89%	86%	***		
		High School	100%	99%	98%	99%	98%	97%	98%	98%	*		***
…healthier milk types													
…any low-fat milks (flavored or unflavored)	Yes	Middle School	--	--	--	--	--	69%	65%	58%	**	*	
		High School	--	--	--	--	--	79%	75%	71%	*		**
…any non-fat milks (flavored or unflavored)	Yes	Middle School	--	--	--	--	--	63%	61%	51%	**	**	
		High School	--	--	--	--	--	72%	72%	67%			***
…any flavored low-fat milks	Yes	Middle School	--	--	--	--	--	58%	49%	43%	***		
		High School	--	--	--	--	--	66%	58%	54%	**		**
…any flavored non-fat milks	Yes	Middle School	--	--	--	--	--	55%	55%	46%	*	*	
		High School	--	--	--	--	--	63%	65%	63%			***
…sugar-sweetened beverages (including regular soft drinks)	Yes	Middle School	78%	71%	69%	65%	63%	66%	64%	58%	***		
		High School	95%	92%	90%	90%	88%	86%	87%	89%	*		***
…sugar-sweetened beverages, revised	Yes	Middle School	--	--	--	--	--	67%	66%	59%	*	*	
		High School	--	--	--	--	--	89%	85%	86%			***
…regular soft drinks	Yes	Middle School	27%	17%	14%	12%	13%	9%	9%	10%	***		
		High School	54%	45%	34%	26%	25%	23%	21%	24%	***		***
…whole or 2% milk (flavored or unflavored)	Yes	Middle School	--	--	--	48%	36%	30%	22%	24%	***		
		High School	--	--	--	57%	48%	39%	30%	28%	***		ns
…other beverages	Yes	Middle School	74%	69%	65%	62%	60%	51%	47%	44%	*		
		High School	94%	88%	87%	87%	84%	77%	78%	82%	***		***
…other beverages, revised	Yes	Middle School	--	--	--	--	--	59%	58%	52%			
		High School	--	--	--	--	--	85%	84%	86%			***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Beverages available in competitive venues, cont.:													
…energy drinks	Yes	Middle School	--	--	--	--	--	--	--	1%			
		High School	--	--	--	--	--	--	--	4%			*
Regular soft drinks available in:													
…à la carte sales in the cafeteria	Yes	Middle School	0%	1%	0%	0%	0%	0%	0%	0%			
		High School	10%	5%	3%	2%	2%	2%	2%	4%	**		**
…stores or snack bars/carts	Yes	Middle School	6%	4%	3%	2%	4%	3%	3%	5%			
		High School	17%	12%	10%	8%	9%	7%	8%	9%	**		
…vending machines	Yes	Middle School	24%	15%	13%	10%	9%	7%	6%	6%	***		
		High School	51%	43%	32%	23%	21%	21%	17%	19%	***		***
Healthier foods available in competitive venues:													
…fruits and vegetables	Yes	Middle School	74%	70%	69%	67%	68%	70%	69%	62%	**		
		High School	84%	86%	85%	83%	85%	81%	80%	75%	*		**
…fresh fruits	Yes	Middle School	72%	68%	67%	64%	66%	68%	65%	59%	**		
		High School	83%	84%	83%	80%	83%	79%	78%	73%	**		***
…other fruits (e.g., dried or canned fruits)	Yes	Middle School	64%	60%	61%	57%	58%	58%	59%	55%	*		
		High School	72%	79%	74%	72%	73%	71%	67%	67%			**
…vegetables (e.g., carrot sticks or celery sticks)	Yes	Middle School	64%	62%	62%	58%	61%	64%	61%	56%			
		High School	73%	78%	77%	74%	77%	73%	74%	67%		*	**
…salads	Yes	Middle School	68%	62%	64%	59%	62%	62%	61%	56%	**		
		High School	78%	78%	78%	76%	77%	73%	73%	66%	**	*	**
…pre-made, main course salads	Yes	Middle School	63%	59%	60%	54%	58%	55%	55%	52%	*		
		High School	72%	75%	73%	70%	74%	68%	68%	61%	*		*
…salad bar	Yes	Middle School	30%	23%	25%	22%	22%	26%	23%	21%	*		
		High School	46%	34%	37%	37%	39%	39%	34%	32%	**		**
…whole grains	Yes	Middle School	53%	54%	53%	50%	54%	56%	55%	55%			
		High School	61%	72%	69%	67%	69%	66%	63%	68%			**
…low-fat snacks	Yes	Middle School	85%	83%	83%	81%	79%	81%	78%	76%	*		
		High School	95%	96%	95%	93%	94%	91%	91%	90%	*		***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Less healthy foods available in competitive venues:													
…french fries	Yes	Middle School	31%	26%	23%	20%	22%	19%	12%	12%	***		
		High School	48%	45%	42%	39%	33%	27%	23%	21%	***		**
…pizza	Yes	Middle School	65%	64%	62%	57%	62%	63%	62%	60%			
		High School	76%	79%	77%	74%	77%	73%	71%	68%	*		*
…regular pizza	Yes	Middle School	--	--	--	--	44%	40%	24%	24%	***		
		High School	--	--	--	--	59%	47%	36%	28%	***	*	
…"healthier" pizza	Yes	Middle School	--	--	--	--	47%	51%	55%	51%			
		High School	--	--	--	--	55%	58%	60%	64%	*		**
…regular fat and sugared snacks	Yes	Middle School	71%	61%	61%	63%	57%	57%	54%	46%	***	*	
		High School	83%	77%	78%	76%	77%	68%	65%	64%	***		***
…regular fat and sugared snacks including cheese sticks	Yes	Middle School	71%	61%	61%	63%	57%	57%	54%	46%	***	*	
		High School	82%	77%	78%	76%	77%	68%	65%	64%	***		***
Commercial fast foods available in competitive venues and/or lunch meals[m]	Yes	Middle School	--	--	27%	27%	21%	19%	17%	18%	**		
		High School	--	--	29%	28%	25%	28%	24%	29%			**
School policies on competitive food and beverages													
Competitive venue prices were set to encourage consumption of healthier:													
…beverages	Some or a lot	Middle School	54%	55%	58%	54%	52%	55%	61%	55%			
		High School	55%	57%	62%	63%	60%	60%	59%	56%			
…foods	Some or a lot	Middle School	48%	51%	56%	52%	54%	56%	63%	57%			
		High School	52%	58%	62%	64%	60%	61%	60%	60%			
School district had restrictions on items sold to students as fundraisers:													
…no soft drinks allowed	Yes	Middle School	--	--	--	21%	19%	19%	21%	19%			
		High School	--	--	--	23%	23%	19%	26%	24%			
…no food products	Yes	Middle School	--	--	--	3%	3%	3%	4%	3%			
		High School	--	--	--	4%	2%	2%	1%	3%			
…no foods of minimal nutritional value (soft drinks, candy, gum)	Yes	Middle School	--	--	--	23%	18%	21%	21%	17%			
		High School	--	--	--	28%	25%	19%	24%	25%			*

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$
[m] Any availability of food from pizza places, sandwich or sub shops, or fast food chains during a typical week.

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
School district had restrictions on items sold to students as fundraisers, cont.:													
…only healthy foods allowed	Yes	Middle School	--	--	--	17%	13%	11%	17%	10%	*	**	
		High School	--	--	--	14%	10%	11%	14%	12%			
…follow state or district wellness guidelines	Yes	Middle School	--	--	--	--	29%	29%	34%	31%			
		High School	--	--	--	--	37%	29%	37%	39%			
Mobile vendors:													
...prohibited from selling on school grounds during school hours	Yes	Middle School	--	--	--	78%	65%	65%	69%	64%	**		
		High School	--	--	--	76%	73%	69%	74%	69%			
…sell foods or beverages near school grounds during school hours	Yes	Middle School	--	--	--	--	6%	7%	9%	10%			
		High School	--	--	--	--	6%	9%	7%	8%			
Forthcoming USDA Smart Snacks competitive venue food and beverage standards													
School subject to USDA Smart Snacks standards for competitive venues via SBP[n] or NSLP[o] participation													
	Yes	Middle School	--	--	--	--	--	--	98%	98%			
		High School	--	--	--	--	--	--	99%	98%			
School has at least one competitive venue	Yes	Middle School	--	--	--	--	--	--	--	91%			
		High School								99%			***
Extent of familiarity with USDA Smart Snacks standards for competitive venues													
	Not at all/a little	Middle School	--	--	--	--	--	--	--	34%			
		High School	--	--	--	--	--	--	--	35%			
	Great/very great	Middle School	--	--	--	--	--	--	--	27%			
		High School	--	--	--	--	--	--	--	32%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$
[n] SBP = School Breakfast Program.
[o] NSLP = National School Lunch Program.

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Extent to which school had started to change practices to comply with USDA Smart Snacks standards for competitive venues:													
...not at all	Yes	Middle School	--	--	--	--	--	--	--	7%			
		High School	--	--	--	--	--	--	--	6%			
...have started to discuss	Yes	Middle School	--	--	--	--	--	--	--	7%			
		High School	--	--	--	--	--	--	--	9%			
...planning changes for next year	Yes	Middle School	--	--	--	--	--	--	--	14%			
		High School	--	--	--	--	--	--	--	23%			*
...have already made changes	Yes	Middle School	--	--	--	--	--	--	--	54%			
		High School	--	--	--	--	--	--	--	48%			
...don't know	Yes	Middle School	--	--	--	--	--	--	--	8%			
		High School	--	--	--	--	--	--	--	9%			
...responded not applicable, but would be subject to standards[p]	Yes	Middle School	--	--	--	--	--	--	--	10%			
		High School	--	--	--	--	--	--	--	4%			*
Among schools that will be subject to USDA Smart Snacks standards and that currently sell competitive items:													
...all competitive venue **beverages** currently meet the following requirements:													
...be caffeine free (required for middle school only)	Yes	Middle School	--	--	--	--	--	--	--	47%			
		High School	--	--	--	--	--	--	--	41%			
...contain no more than 12oz as packaged (required for middle school only)	Yes	Middle School	--	--	--	--	--	--	--	48%			
		High School	--	--	--	--	--	--	--	37%			*
...contain less than 40 calories/8oz serving (or 60 calories/12 oz serving) (allowed for high school only)	Yes	Middle School	--	--	--	--	--	--	--	37%			
		High School	--	--	--	--	--	--	--	33%			
...all competitive venue **foods** currently meet the following requirements:													
...be a fruit, vegetable, whole grain, protein, or dairy food	Yes	Middle School	--	--	--	--	--	--	--	53%			
		High School	--	--	--	--	--	--	--	49%			
...be transfat free	Yes	Middle School	--	--	--	--	--	--	--	48%			
		High School	--	--	--	--	--	--	--	51%			
...contain no more than 35% total calories from fat	Yes	Middle School	--	--	--	--	--	--	--	50%			
		High School	--	--	--	--	--	--	--	49%			
...contain no more than 10% total calories from saturated fat	Yes	Middle School	--	--	--	--	--	--	--	46%			
		High School	--	--	--	--	--	--	--	46%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.

* $p < .05$; ** $p < .01$; *** $p < .001$

[p] Schools are subject to USDA Smart Snacks standards if the school participates in one or more federally-reimbursable meal programs (SBP or NSLP), and sells foods or beverages to students through competitive venues.

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Among schools that will be subject to USDA Smart Snacks standards and that currently sell competitive items, cont.:													
…all competitive venue **snack foods** currently meet the following requirements:													
…contain less than 230mg sodium	Yes	Middle School	--	--	--	--	--	--	--	34%			
		High School	--	--	--	--	--	--	--	40%			
…contain less than 200 calories	Yes	Middle School	--	--	--	--	--	--	--	34%			
		High School	--	--	--	--	--	--	--	40%			
…all à la carte entrees currently meet the following requirements:													
…contain less than 480mg sodium	Yes	Middle School	--	--	--	--	--	--	--	36%			
		High School	--	--	--	--	--	--	--	46%			
…contain less than 350 calories	Yes	Middle School	--	--	--	--	--	--	--	35%			
		High School	--	--	--	--	--	--	--	44%			
In-school marketing, including exclusive contracts													
District or school had existing exclusive beverage contract in place	Yes	Middle School	67%	65%	63%	55%	49%	49%	47%	47%	***		
		High School	74%	79%	74%	71%	65%	69%	66%	63%	*		***
School received specified percentage of sales from exclusive beverage contract	Yes	Middle School	54%	55%	53%	45%	37%	33%	33%	32%	***		
		High School	64%	68%	62%	61%	53%	55%	53%	49%	**		***
Regular soft drinks sold to students under exclusive beverage contract	Yes	Middle School	--	14%	13%	12%	7%	6%	8%	10%			
		High School	--	37%	28%	19%	18%	20%	16%	17%	***		*
School received specified percentage of sales from food vending machines	Yes	Middle School	21%	19%	19%	20%	20%	17%	14%	16%			
		High School	46%	44%	43%	44%	42%	39%	38%	36%	*		***
Soft drinks and/or fast-food restaurants were promoted by:													
…sponsorships	Yes	Middle School	11%	13%	9%	12%	13%	11%	11%	14%			
		High School	29%	21%	21%	17%	19%	22%	20%	25%			***
…coupons	Yes	Middle School	10%	11%	8%	7%	7%	7%	7%	9%			
		High School	8%	6%	9%	8%	8%	7%	9%	10%			
…textbook covers or menus	Yes	Middle School	2%	3%	0%	1%	0%	0%	1%	0%			
		High School	1%	2%	2%	2%	1%	1%	1%	1%			
…exclusive beverage contract ads (excluding vending machine ads)	Yes	Middle School	7%	9%	9%	6%	5%	5%	4%	5%			
		High School	17%	19%	12%	14%	14%	14%	12%	9%	*		

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Competitive Foods and Beverages, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Soft drinks and/or fast-food restaurants were promoted by, cont.:													
…posters	Yes	Middle School	2%	3%	4%	1%	1%	2%	1%	2%			
		High School	7%	4%	2%	3%	3%	2%	3%	5%			*
…posters in the school or on school grounds	Yes	Middle School	--	--	--	--	--	--	--	2%			
		High School	--	--	--	--	--	--	--	5%			*
…posters on interior or exterior of school buses	Yes	Middle School	--	--	--	--	--	--	--	0%			
		High School	--	--	--	--	--	--	--	0%			
Physical Activity and Physical Education	**Responses**	**Grade Level**	**Year**								**First v. Last**	**Next to Last v. Last**	**MS v. HS 2014**
			2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**			
School required physical education for student's grade level	Yes	Middle School	83%	83%	82%	83%	80%	82%	79%	79%			
		High School	37%	35%	32%	34%	33%	34%	29%	36%		*	***
Physical education participation:													
…students took physical education	[Average %]	Middle School	90%	91%	90%	90%	89%	89%	89%	87%			
		High School	51%	49%	48%	50%	48%	50%	50%	52%			***
…weighted number of weeks of physical education taken per year	[Average # weeks]	Middle School	--	--	--	--	26	27	26	25			
		High School	--	--	--	--	14	14	15	14			***
…minutes of physical education per student per week	[Average # minutes]	Middle School	--	--	--	--	148	147	150	139		*	
		High School	--	--	--	--	88	89	94	92		*	***
Students participated in interscholastic or varsity sports:													
…boys (no participation in school=0%)	[Average %]	Middle School	31%	30%	33%	31%	34%	34%	29%	28%			
		High School	32%	31%	32%	33%	33%	34%	35%	34%			**
…girls (no participation in school=0%)	[Average %]	Middle School	27%	27%	28%	28%	30%	30%	26%	24%			
		High School	27%	27%	27%	29%	28%	29%	30%	30%			***
…boys (in schools with any participation)	[Average %]	Middle School	35%	33%	35%	34%	37%	36%	33%	34%			
		High School	33%	32%	33%	33%	34%	34%	35%	35%			
…girls (in schools with any participation)	[Average %]	Middle School	30%	30%	31%	30%	33%	31%	30%	30%			
		High School	28%	27%	29%	29%	29%	29%	30%	32%	*		
…school did not offer interscholastic or varsity sports	Yes	Middle School	--	--	--	--	--	--	--	19%			
		High School	--	--	--	--	--	--	--	4%			***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Physical Activity and Physical Education, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
To participate in interscholastic or varsity sports, payment must be made for:													
…school athletic participation fee													
…fee required, no financial assistance	Yes	Middle School	--	--	--	--	--	--	10%	11%			
		High School	--	--	--	--	--	--	11%	14%			
…fee waived/reduced if student cannot afford it	Yes	Middle School	--	--	--	--	--	--	18%	19%			
		High School	--	--	--	--	--	--	25%	23%			
…no fee	Yes	Middle School							66%	51%	***	***	
		High School							62%	59%			
…additional team fees													
…fee required, no financial assistance	Yes	Middle School	--	--	--	--	--	--	6%	6%			
		High School	--	--	--	--	--	--	11%	10%			
…fee waived/reduced if student cannot afford it	Yes	Middle School	--	--	--	--	--	--	12%	12%			
		High School	--	--	--	--	--	--	17%	18%			*
…no fee	Yes	Middle School							75%	62%	***	***	
		High School							68%	64%			
…additional costs for uniforms, equipment, etc.													
…costs required, no financial assistance	Yes	Middle School	--	--	--	--	--	--	6%	8%			
		High School	--	--	--	--	--	--	11%	9%			
…school helps if student cannot afford it	Yes	Middle School	--	--	--	--	--	--	11%	20%	**	**	
		High School	--	--	--	--	--	--	25%	21%			
…no fee	Yes	Middle School							75%	51%	***	***	
		High School							61%	64%			**
…any required fees	Yes	Middle School	--	--	--	--	--	--	16%	18%			
		High School	--	--	--	--	--	--	21%	21%			
…no required fees	Yes	Middle School	--	--	--	--	--	--	53%	33%	***	***	
		High School	--	--	--	--	--	--	39%	40%			
Extent to which students do not participate in varsity sports due to cost	Some, great, or very great	Middle School	--	--	--	--	--	--	11%	6%	*	*	
		High School	--	--	--	--	--	--	13%	10%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Physical Activity and Physical Education, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Students participated in intramural sports or physical activity clubs:													
…boys (no participation in school=0%)	[Average %]	Middle School	26%	24%	23%	23%	25%	27%	22%	23%			
		High School	12%	13%	12%	13%	12%	13%	14%	13%			***
…girls (no participation in school=0%)	[Average %]	Middle School	23%	21%	20%	19%	22%	23%	20%	19%			
		High School	11%	10%	11%	12%	10%	12%	12%	11%			***
…boys (in schools with any participation)	[Average %]	Middle School	30%	31%	30%	30%	32%	32%	30%	35%		*	
		High School	19%	19%	20%	19%	21%	22%	21%	28%	***	*	**
…girls (in schools with any participation)	[Average %]	Middle School	27%	27%	26%	26%	27%	28%	27%	30%			
		High School	17%	16%	17%	17%	19%	19%	19%	25%	***	*	*
…school did not offer intramural sports or physical activity clubs	Yes	Middle School	--	--	--	--	--	--	--	34%			
		High School	--	--	--	--	--	--	--	52%			***
Students walked or bicycled from home to school	[Average %]	Middle School	23%	25%	22%	23%	21%	21%	24%	21%			
		High School	14%	14%	12%	13%	15%	16%	15%	14%			***
School gave students physical fitness tests:													
…had any testing	Yes	Middle School	73%	76%	83%	86%	84%	84%	85%	87%	***		
		High School	36%	41%	58%	63%	57%	58%	62%	60%	***		***
…all students were tested	Yes	Middle School	53%	54%	61%	62%	62%	65%	59%	58%			
		High School	12%	16%	27%	29%	24%	23%	20%	19%	*		***
…only students taking physical education were tested	Yes	Middle School	20%	20%	22%	24%	21%	19%	24%	27%			
		High School	23%	23%	29%	32%	31%	31%	37%	36%	**		*
Parents or guardians provided with results of physical fitness tests	Yes	Middle School	44%	52%	53%	56%	58%	53%	56%	58%	**		
		High School	15%	21%	29%	32%	30%	35%	32%	40%	***	*	***
School measured students' body mass index (BMI):													
…had any assessments	Yes	Middle School	33%	37%	47%	45%	45%	49%	47%	45%	**		
		High School	27%	32%	42%	40%	38%	37%	35%	40%	**		
…all students were assessed	Yes	Middle School	24%	26%	34%	33%	36%	38%	35%	30%			
		High School	6%	11%	20%	18%	18%	15%	15%	14%	**		***
…only students taking physical education were assessed	Yes	Middle School	7%	8%	11%	9%	8%	10%	10%	13%	*		
		High School	17%	15%	17%	17%	16%	18%	16%	20%			*
Parents or guardians provided with results of BMI measurement	Yes	Middle School	20%	24%	33%	35%	36%	38%	35%	35%	***		
		High School	11%	17%	25%	23%	20%	22%	21%	27%	***		*

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Physical Activity and Physical Education, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
School had activities in place to promote physical activity	Yes	Middle School	61%	65%	56%	48%	41%	45%	47%	43%	***		
		High School	46%	51%	41%	36%	36%	33%	29%	31%	**		**
Outside organizations/individuals allowed to use school facilities for physical activity or sports programs outside of school hours	Yes	Middle School	--	--	--	93%	91%	93%	94%	93%			
		High School	--	--	--	94%	93%	94%	90%	94%		*	
Indoor facilities allowed to be used:													
…weekdays after school	Yes	Middle School	--	--	--	--	--	--	--	54%			
		High School	--	--	--	--	--	--	--	49%			
…weekday evenings	Yes	Middle School	--	--	--	--	--	--	--	71%			
		High School	--	--	--	--	--	--	--	64%			
…weekdays before school	Yes	Middle School	--	--	--	--	--	--	--	10%			
		High School	--	--	--	--	--	--	--	14%			
…weekends	Yes	Middle School	--	--	--	--	--	--	--	74%			
		High School	--	--	--	--	--	--	--	80%			
…summer vacations/school breaks	Yes	Middle School	--	--	--	--	--	--	--	61%			
		High School	--	--	--	--	--	--	--	73%			**
Outdoor facilities/school grounds allowed to be used:													
…weekdays after school	Yes	Middle School	--	--	--	--	--	--	--	59%			
		High School	--	--	--	--	--	--	--	55%			
…weekday evenings	Yes	Middle School	--	--	--	--	--	--	--	71%			
		High School	--	--	--	--	--	--	--	68%			
…weekdays before school	Yes	Middle School	--	--	--	--	--	--	--	11%			
		High School	--	--	--	--	--	--	--	21%			**
…weekends	Yes	Middle School	--	--	--	--	--	--	--	78%			
		High School	--	--	--	--	--	--	--	85%			*
…summer vacations/school breaks	Yes	Middle School	--	--	--	--	--	--	--	64%			
		High School	--	--	--	--	--	--	--	81%			***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Physical Activity and Physical Education, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Extent to which the following have been barriers to shared use:													
…liability or legal concerns	Not at all/a little	Middle School	--	--	--	--	--	--	--	59%			
		High School	--	--	--	--	--	--	--	68%			*
	Great/very great	Middle School	--	--	--	--	--	--	--	26%			
		High School	--	--	--	--	--	--	--	38%			**
…lack of adequate facilities	Not at all/a little	Middle School	--	--	--	--	--	--	--	40%			
		High School	--	--	--	--	--	--	--	50%			*
	Great/very great	Middle School	--	--	--	--	--	--	--	16%			
		High School	--	--	--	--	--	--	--	25%			**
…staffing expenses	Not at all/a little	Middle School	--	--	--	--	--	--	--	44%			
		High School	--	--	--	--	--	--	--	54%			*
	Great/very great	Middle School	--	--	--	--	--	--	--	20%			
		High School	--	--	--	--	--	--	--	31%			**
…crime/safety/possible damage to facilities	Not at all/a little	Middle School	--	--	--	--	--	--	--	42%			
		High School	--	--	--	--	--	--	--	52%			*
	Great/very great	Middle School	--	--	--	--	--	--	--	19%			
		High School	--	--	--	--	--	--	--	23%			
…lack of community interest/demand	Not at all/a little	Middle School	--	--	--	--	--	--	--	24%			
		High School	--	--	--	--	--	--	--	28%			
	Great/very great	Middle School	--	--	--	--	--	--	--	8%			
		High School	--	--	--	--	--	--	--	6%			
…facilities not available due to conflicting demands	Not at all/a little	Middle School	--	--	--	--	--	--	--	55%			
		High School	--	--	--	--	--	--	--	63%			*
	Great/very great	Middle School	--	--	--	--	--	--	--	20%			
		High School	--	--	--	--	--	--	--	40%			***

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Wellness Policies	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
District or school had established a wellness policy	Yes	Middle School	73%	78%	81%	81%	82%	80%	76%	75%			
		High School	80%	84%	76%	77%	78%	73%	70%	75%			
Implementation plan for wellness policy:													
…district or school had developed plan	Yes	Middle School	33%	33%	33%	34%	30%	28%	30%	34%			
		High School	33%	36%	35%	35%	32%	34%	31%	34%			
…district or school was currently developing plan	Yes	Middle School	23%	20%	20%	18%	18%	18%	14%	15%	*		
		High School	26%	26%	19%	16%	16%	15%	15%	16%	**		
…district or school had not developed plan	Yes	Middle School	20%	23%	22%	24%	27%	30%	28%	26%			
		High School	25%	22%	24%	26%	27%	26%	29%	25%			
…district or school had no wellness policy	Yes	Middle School	8%	7%	5%	4%	5%	6%	7%	2%	**	**	
		High School	4%	4%	5%	7%	7%	8%	5%	7%			**
…administrator did not know if plan existed	Yes	Middle School	17%	17%	20%	21%	20%	18%	21%	23%			
		High School	11%	12%	16%	16%	18%	17%	20%	18%	*		
Designated individual was responsible for implementing school wellness policy	Yes	Middle School	55%	54%	60%	58%	56%	53%	53%	56%			
		High School	61%	66%	63%	59%	53%	50%	52%	59%			
Explicit student wellness goals had been developed for:													
…physical activity	Yes	Middle School	55%	58%	60%	63%	61%	56%	54%	53%			
		High School	54%	53%	55%	55%	55%	55%	52%	50%			
…nutrition education	Yes	Middle School	45%	50%	55%	56%	51%	51%	50%	48%			
		High School	57%	60%	51%	56%	51%	58%	51%	52%			
…food and beverages available to students	Yes	Middle School	--	--	67%	59%	62%	60%	57%	53%	**		
		High School	--	--	60%	59%	61%	61%	58%	59%			
If have explicit goals, have some or more implemented activities to achieve goals for[q]:													
…physical activity	Yes	Middle School	--	--	--	--	--	99%	97%	97%			
		High School	--	--	--	--	--	96%	92%	98%		*	
…nutrition education	Yes	Middle School	--	--	--	--	--	97%	96%	96%			
		High School	--	--	--	--	--	95%	94%	93%			
…food and beverages available to students	Yes	Middle School	--	--	--	--	--	96%	93%	93%			
		High School	--	--	--	--	--	95%	92%	94%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$
[q] Only for those that report having explicit goals.

Wellness Policies, cont.	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Significant activities underway to promote healthier eating and drinking practices	Yes	Middle School	60%	63%	50%	49%	41%	46%	45%	40%	***		
		High School	58%	55%	42%	45%	43%	39%	36%	38.6	***		
District or school had nutrition guidelines for all foods	Yes	Middle School	66%	67%	70%	68%	68%	68%	72%	72%			
		High School	59%	68%	68%	69%	67%	67%	70%	68%	*		
Had advisory body for nutrition and/or exercise recommendations:													
…at district level only	Yes	Middle School	36%	44%	43%	39%	38%	42%	43%	40%			
		High School	37%	44%	45%	44%	43%	43%	36%	39%			
…at school level only	Yes	Middle School	6%	7%	5%	7%	8%	9%	6%	5%			
		High School	6%	6%	5%	7%	7%	4%	6%	7%			
…at both district and school level	Yes	Middle School	19%	17%	13%	12%	12%	12%	15%	17%			
		High School	18%	15%	12%	11%	11%	14%	13%	17%			
District offered formal classroom instruction on:													
…physical activity, exercise and fitness	Yes	Middle School	96%	94%	94%	91%	89%	91%	89%	90%	**		
		High School	98%	97%	95%	96%	95%	94%	94%	95%			*
…nutrition and dietary behavior	Yes	Middle School	78%	83%	81%	83%	80%	77%	77%	75%			
		High School	91%	95%	91%	90%	89%	89%	90%	87%			***
School was certified as a USDA HealthierUS School	Yes	Middle School	--	--	--	3%	2%	4%	7%	4%			
		High School	--	--	--	4%	3%	8%	9%	6%			
	No	Middle School	--	--	--	50%	51%	51%	38%	53%		***	
		High School	--	--	--	53%	55%	46%	43%	51%		*	
	Don't know	Middle School	--	--	--	47%	47%	45%	55%	43%		**	
		High School	--	--	--	43%	42%	47%	48%	43%			
School designated as an Alliance for a Healthier Generation Healthy School Program	Yes	Middle School	--	--	--	1%	0%	4%	6%	3%		**	
		High School	--	--	--	3%	2%	5%	5%	4%			
	No	Middle School	--	--	--	51%	52%	50%	37%	51%		***	
		High School	--	--	--	54%	55%	47%	45%	51%			
	Don't know	Middle School	--	--	--	48%	48%	46%	57%	46%		*	
		High School	--	--	--	43%	43%	48%	50%	45%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Principals' Perceptions	Responses	Grade Level	Year								First v. Last	Next to Last v. Last	MS v. HS 2014
			2007	2008	2009	2010	2011	2012	2013	2014			
Extent of concern about student overweight	Great/very great	Middle School	48%	53%	48%	45%	43%	47%	40%	27%	***	***	
		High School	45%	47%	44%	41%	37%	40%	34%	30%	**		
Extent of concern about student nutrition	Great/very great	Middle School	65%	65%	62%	63%	59%	57%	55%	47%	***	*	
		High School	59%	60%	60%	55%	54%	54%	46%	46%	**		
Extent of concern about student physical activity levels	Great/very great	Middle School	67%	67%	65%	67%	61%	65%	62%	50%	***	**	
		High School	69%	68%	65%	61%	59%	60%	50%	52%	***		
Extent of *school* effort to improve student nutrition	Great/very great	Middle School	55%	59%	56%	51%	49%	50%	56%	48%		*	
		High School	45%	49%	46%	48%	49%	48%	51%	44%			
Extent of *school district* effort to improve student nutrition	Great/very great	Middle School	52%	62%	54%	52%	49%	52%	56%	53%			
		High School	48%	52%	48%	47%	48%	50%	55%	48%			
Extent of *school* effort to improve student physical activity	Great/very great	Middle School	56%	59%	58%	51%	51%	51%	51%	50%			
		High School	38%	43%	38%	38%	38%	35%	38%	37%			**
Extent of *school district* effort to improve student physical activity	Great/very great	Middle School	46%	47%	50%	43%	40%	43%	41%	43%			
		High School	36%	38%	33%	36%	34%	33%	39%	36%			
Extent schools should play a role in addressing childhood obesity	Great/very great	Middle School	--	--	--	--	61%	58%	51%	47%	**		
		High School	--	--	--	--	48%	49%	45%	42%			

Source: Bridging the Gap, Institute for Social Research, University of Michigan, 2015.
* $p < .05$; ** $p < .01$; *** $p < .001$

Study Methods

The results presented here are derived from surveys of school administrators—mostly school principals—in a sample of schools chosen to be representative of secondary schools in the coterminous United States. Separate subsamples are used to represent middle schools and high schools, and the results for each are reported separately. A full description of the study can be found elsewhere.[17,34]

Samples

The Bridging the Gap (BTG) initiative began in the 1996-1997 school year. Schools for the Bridging the Gap study were drawn each year from the half-sample of schools that had participated in the Monitoring the Future study, and were cycling out of that study after two years of having their students in a chosen grade surveyed in their classrooms. The annual Monitoring the Future samples consisted of three nationally representative subsamples—one each of schools containing 8th, 10th and 12th grade students. However, only about 200 schools participate each year in the BTG sample in total (including both public and private schools)—not enough to make reliable estimates of changes occurring in the conditions in U.S. schools. Therefore, as the focus of the Bridging the Gap shifted toward childhood obesity, a supplementary nationally representative sample of almost 600 public secondary schools was added, and their principals were invited to complete a questionnaire each year beginning in 2007. These samples were defined in a way consistent with the Monitoring the Future design, in that three separate subsamples of schools are surveyed each year—selected because they contained students in 8th, 10th or 12th grade. Many of the questions asked of principals refer to the specific grade upon which the school was selected.

For the years 2007 and 2008, the data presented here are taken from the supplementary nationally representative sample of public schools described above. Beginning in 2009, the annual Monitoring the Future samples were asked the full complement of questionnaire items related to childhood obesity. Thus, for 2009 and later, this monograph combines data from both the annual Monitoring the Future samples (public schools only) and the supplementary sample of public schools. Those selected in the 8th grade samples are here defined as middle schools, while those selected in the 10th or 12th grade samples are defined as high schools, and the 10th and 12th grade results have been combined here.

Response Rates and Sample Sizes

Sample sizes vary from year to year primarily as a result of slightly shifting response rates. Table 2 provides sample sizes and response rates for both the Monitoring the Future (MTF) and Supplementary samples.

TABLE 2 Response Rates, 2007-2014

	Monitoring the Future Sample		Supplementary Sample		
Year	Schools Responding	Response Rate	Schools Responding	Response Rate--Original	Response Rate--With Replacement
2007	N/A	N/A	446	76%	N/A
2008	N/A	N/A	527	77%	89%
2009	141	83%	566	76%	91%
2010	136	85%	569	73%	90%
2011	138	79%	529	65%	86%
2012	139	86%	528	66%	86%
2013	145	83%	507	60%	82%
2014	133	83%	479	57%	77%

Notes: Monitoring the Future schools were first combined with the larger supplement sample of schools in 2009. Replacement schools were first introduced into the supplement sample in 2008.

Presentation of Findings

This report contains results of two types. The first describes conditions in U.S. secondary schools as measured in the national school survey conducted that year. Results are reported separately for middle schools and high schools; and within each of those levels of schooling, are reported for the entire national sample of schools as well as for selected subgroups of schools and types of students they serve. The second type of reporting deals with the amount of change that has been observed between the first year and the most recent data collection year (spanning up to eight survey years from 2007–2014). Indications of change in the policies and practices of schools are of particular importance, and provision of accurate change estimates is one of the major goals of Bridging the Gap. As additional years are added, we should have an even better understanding of changing conditions and of the rates of change in U.S. secondary schools.

All results reported here reflect the percentage of *students* enrolled rather than the percentage of *schools*. Thus, the answers describing conditions in the schools given by principals of large schools weigh in more heavily by virtue of the fact that their schools serve more students than do smaller schools. For example, if one school has 100 students in the target grade (8th, 10th or 12th) and a second school has 500 students in the same target grade, then the larger school will weigh into the results at a rate five times greater than the first. Put another way, when percentages are calculated for the answers to questions, each principal's answers are weighted by the number of students enrolled in the target grade in that school.

The results presented in this report have been drawn from *Bridging the Gap: Complete Descriptive Statistics on Secondary Schools, School Years 2006-07 to 2011-14*, which provides a complete compilation of the findings from the 2007–2014 surveys (see *www.bridgingthegap research.org/research/secondary_school_survey*). In that report, results are provided separately and side-by-side to facilitate comparisons for:

~ all middle schools and all high schools;
~ three levels of socioeconomic status of the student body (separately for both middle schools and high schools);
~ middle schools and high schools weighted by the number of White, Black and Latino students attending each one; and

~ middle schools and high schools with student bodies that are predominately White (>66%), majority Black (>50%), and majority Latino (>50%).

Note that there are two methods for comparing across diverse racial and ethnic populations. One looks at whole schools that are majority (or predominantly in the case of Whites) one race or ethnic group. Quite a number of schools do not fit into any of these three categories. Thus, the other method of comparison uses individual students as the unit of analysis. It looks at all schools and weighs each school into its calculations by how many students in each racial/ethnic group attend it in the grade of interest. So, for example, if one school serves 50 out of 1,000 Latino students in the entire 8th grade national sample, the characteristics of that school will account for 5 percent of the total value for Latino students on any school characteristic of interest, because 5 percent of all Latino students are exposed to the conditions in that particular school. A school that serves many Latino students will weigh into the estimates for those students more than a school that serves only a few, but all schools that serve Latino students will weigh into the calculation. The resulting statistics from such a weighting scheme are estimates of the conditions faced by a national sample of Latino students, in this case.

All differences between years and between groups are tested for statistical significance, and significant results are identified as such in the document *Bridging the Gap: Complete Descriptive Statistics on Secondary Schools, School Years 2006–07 to 2011–14*, as well as in this report. A guide to using that document has been carefully designed to be readable and understandable to the non-scientist to guide and facilitate its easy use. It can be accessed on the same link.

The questionnaires used to gather the national data each year are included on the same page as the complete statistics document. See: *www.bridgingthegapresearch.org/research/secondary_school_survey*). They are annotated to facilitate the look-up of the results for each question in the complete statistics document.

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