



Results on School Policies and Programs
Overview of Key Findings

2011

A Study Supported by the Robert Wood Johnson Foundation

YOUTH, EDUCATION, AND SOCIETY
RESULTS ON SCHOOL POLICIES AND PROGRAMS

Overview of Key Findings, 2011

by

**Lloyd D. Johnston
Patrick M. O'Malley
Jerald G. Bachman
John E. Schulenberg**

**The University of Michigan
Institute for Social Research**

A Study Supported by the Robert Wood Johnson Foundation

2012

Acknowledgments

Funding for the Youth, Education, and Society (YES) project is provided by the Robert Wood Johnson Foundation. It is part of a larger research initiative of the Foundation, entitled Bridging the Gap.

Several staff members on the YES project provided valuable assistance in the preparation of this report: Jonathon Brenner carried out the analyses, assisted with the writing, and oversaw the production; Ginny Laetz assisted with the writing; Carola Carlier provided editorial assistance.

Contents

Acknowledgments	ii
Executive Summary	v
What School Factors Are Associated With Fewer ATOD Problems?.....	v
How Common Is School Drug Testing of Students?.....	v
Physical Education in Schools: What Are Schools Doing?.....	v
What Are the Most Common Nutritional Policies and Practices in Schools?.....	v
Project Description	1
The Purpose of the Project.....	1
A Description of the Questionnaire	1
A Description of Participating Schools.....	1
Alcohol, Tobacco, and Other Drug Use: Challenges in Today’s Schools	2
Ratings of School Problems	2
Comparison of Public and Private Schools.....	3
Comparison of Middle Schools and High Schools	3
Meeting the Challenge of ATOD Use in Schools	4
School Factors Related to ATOD Problems	4
1. School Services.....	4
2. Professional Care Providers.....	4
3. Racial Composition	4
4. Staff Smoking	4
5. School Uniforms.....	5
6. Parental Involvement.....	5
Resources Available to Address ATOD Problems	5
Counseling Staff and Services	5
School Programs and Services.....	6
Tobacco Cessation Services.....	7
ATOD Prevention Programs.....	7
School Drug-Testing Policies and Procedures	8
Actions Taken When a Student Tests Positive on Random Drug Test.....	8
ATOD Summary.....	9
Student Participation in Physical Education	10
Promoting Physical Activity and Fitness	10
School Facilities Available for Student Physical Activity.....	11
Physical Education Summary	12
Food and Nutrition Policies and Programs in Schools.....	13
School Meal Planning	13
School Lunch Options.....	13
Vending Machines, Snack Bars/Carts, School Store	14

Food Vending Provided by a Company14

Food and Beverage Vending Decisions and Profits.....15

Exclusive Beverage Contracts17

Efforts to Improve Student Nutrition18

School Wellness Policies19

Effectiveness of School Wellness Policies20

Food and Nutrition Summary20

Conclusions.....21

Executive Summary

Today's school administrators face multiple challenges, from raising accountability and achievement standards to creating safe, drug-free learning environments and, more recently, to attending to the growing problem of obesity among youth. This report provides key findings from the Youth, Education, and Society (YES) study of school policies concerning physical education (PE) and nutrition as well as alcohol, tobacco, and other drug (ATOD) prevention programs and school activities. The following are highlights from the 2011 nationwide survey of *School Administrators*:

What school factors are associated with fewer ATOD problems?

- Analyses of the data show that less staff smoking is associated with fewer reported ATOD problems.
- Schools in which African-American students are in the majority showed lower than average ATOD use.

How common is school drug testing of students?

- In 2011, one in five schools (20%) conducted some type of drug testing of students.
- Suspicion or cause was the most common reason for drug testing, followed by athletic team membership.

Physical education in schools: What are schools doing?

- About half of schools (47%) require PE for the surveyed grade (8, 10, or 12), but the percentage varied considerably depending on grade level, with PE much less likely to be required in higher grades.
- Two of three schools (66%) reported that they give physical fitness tests to the students in their surveyed grade.

What are the most common nutritional policies and practices in schools?

- Most schools (83%) participate in the USDA reimbursable National School Lunch Program, but one in three (34%) participate in the USDA-sponsored Team Nutrition program.
- High schools are more likely than middle schools to have vending machines and school stores, and middle schools are more likely than high schools to restrict access to soft drink vending machines.

Project Description

The Purpose of the Project

One major goal of this project is to determine which policies and programs are most effective in reducing students' obesity levels and ATOD use and to inform policymakers and school administrators of the results. Another major goal is to track the changes taking place in American school practices and policies that are likely to affect student ATOD and overweight. The School Policies and Programs Questionnaire is administered in a national sample of schools in order to collect information about how school policies and prevention programs affect young people's behavior and attitudes regarding alcohol, tobacco, and other drug (ATOD) use. Questions about school activities and policies regarding physical education (PE) and nutrition were added in 2003 and 2004, respectively.

A Description of the Questionnaire

The School Policies and Programs Questionnaire was mailed in the spring and summer of 2011. The project has collected information on ATOD since 1998, PE since 2003, and nutrition since 2004. The information presented in this report reflects responses to the 2011 survey. On some occasions, comparisons over the 14-year period are drawn for the ATOD data.

The questionnaire asked about the following:

- General characteristics of the school, teaching staff, and students
- Resources available to students in the school and local community
- PE programs
- School nutrition policies and programs
- School policies regarding alcohol, tobacco, and other drug use
- Types of ATOD prevention programs taught in the school (and/or its feeder schools)

A Description of Participating Schools

A total of 164 secondary schools across the nation participated in the YES study in 2011, reflecting a response rate of 79%. The schools selected to be surveyed came from a national sample of schools that recently completed two years of participation in the Monitoring the Future (MTF) student survey study (i.e., in 2010 and 2011). At each grade (8, 10, and 12), an independent sample of schools was selected to participate in the MTF study. They were drawn originally with probability proportionate to estimated school size. The 2011 YES survey of school administrators contained:

- 138 public and 26 private schools
- 51 junior high/middle schools and 113 high schools
- 38 schools from the Northeast region, 41 schools from the Midwest, 51 schools from the South, and 34 schools from the West

The primary respondents to the questionnaire were school principals (66%), followed by counselors, teachers, and other school administrators. In most cases, the primary respondents at schools relied on additional school staff to help gather information to complete the questionnaire.

Alcohol, Tobacco, and Other Drug Use: Challenges in Today’s Schools

Ratings of School Problems

We asked respondents to rate the severity of various problems in their school on a scale of 1 (“not a problem”) to 5 (“a serious problem”).

The Percentage and Average Ratings on School Problems

Type of Problem	Not a Problem		Somewhat of a Problem		A Serious Problem	Average Rating (1–5)
	1	2	3	4	5	
Academic underachievement	4%	29%	48%	12%	7%	2.9
Student disrespect of teachers	19%	42%	28%	9%	2%	2.3
ATOD use	27%	40%	26%	7%	0%	2.1
School violence	49%	39%	10%	1%	0%	1.6
Gang activity	65%	21%	10%	4%	0%	1.5
Racial tension among students	56%	37%	6%	1%	0%	1.5

Of the six types of problems, respondents reported that academic underachievement, student disrespect of teachers, and ATOD use by students were the most serious problems in their schools. In eight of the fourteen years of the survey, the ATOD problem ranked second only to academic underachievement.

In 2011, respondents were asked to rate separately the severity of the alcohol, tobacco, and illicit drug use problems that their school faced:

- 36% of schools reported that **illicit drug** use was at least somewhat of a problem.
- 32% of schools reported that **alcohol** use was at least somewhat of a problem;
- 29% of schools reported that **tobacco** use was at least somewhat of a problem;

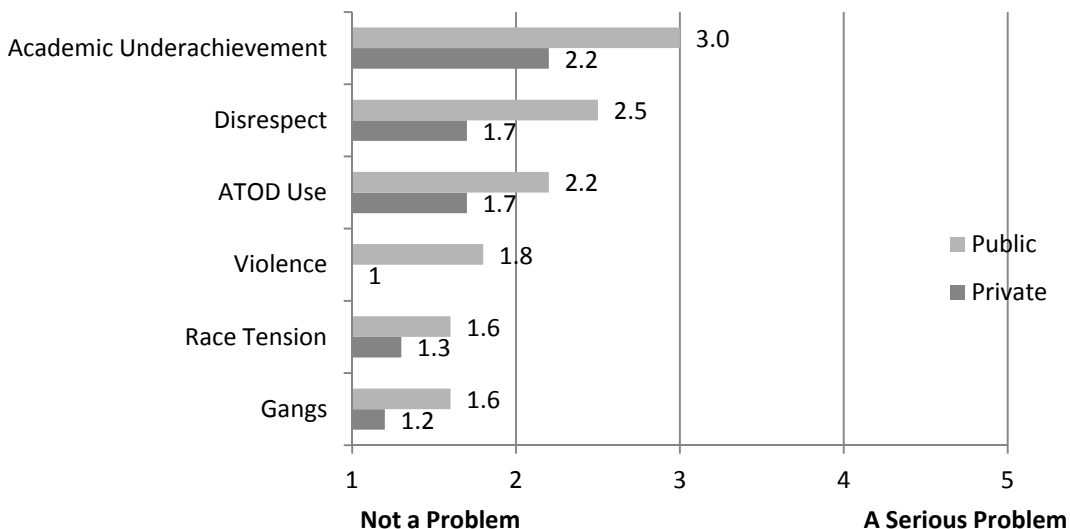
According to administrators’ ratings, alcohol use was the most serious ATOD problem in private schools, while illicit drug use was the most serious problem in public schools.

Gang activity and racial tension and were considered somewhat of a problem in 10% and 6% of schools, respectively.

Comparison of Public and Private Schools

In the figure below, we compare the average rating of each problem for public and private schools. Administrators in public schools reported **significantly more** challenges than administrators in private schools for all problems listed.

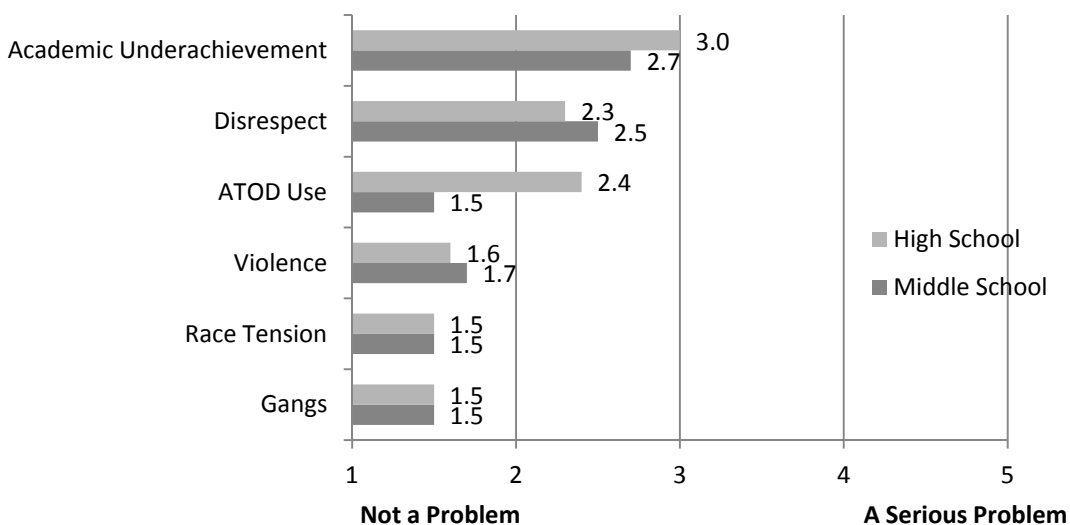
Average Rating on Various School Problems for Public and Private Secondary Schools



Comparison of Middle Schools and High Schools

We also compared how administrators in middle schools and high schools rated each of these problems. One problem that differed **significantly** between middle and high schools was reported ATOD use—respondents from high schools rated this as a more serious problem than did respondents from middle schools.

Average Rating on Various School Problems for High Schools and Middle Schools



Meeting the Challenge of ATOD Use in Schools

School Factors Related to ATOD Problems

We asked respondents about many school resources and practices, and we examined whether any of these resources and practices are **related** to the school ATOD problems. Note that the relationships are associations, which do not prove causation. When looking at all 14 years of survey data, we found the following associations:

1. School Services

Initially, we found a positive relationship between reported ATOD problems and the total number of counseling and prevention services available. (The full list of school services is illustrated in the figure on page 6.) Schools that reported **more ATOD problems** offered **more counseling and prevention services**. The services in some schools may have exposed existing problems or may have been established in reaction to drug use or other student problems. However, in a more detailed analysis, we found little consistent evidence (after controlling for various school and student-body characteristics) that counseling and prevention service availability or use was associated with substance abuse among students.¹

2. Professional Care Providers

Respondents were asked to indicate which professional care providers were employed in their school. (The full list of care providers is illustrated in the figure on page 5.) The ratio of professional, full-time care providers to students is related to the severity of the ATOD problem in schools, although it is a very weak relationship. The **more care providers**, the **higher** the reported ATOD problem in schools, suggesting that more care providers are made available in schools with the most pressing need.

3. Racial Composition

There is a strong relationship between racial composition and reported ATOD problems in all types of schools. Schools that had **more African-American students** were **much less** likely to report problems with student ATOD use than schools with primarily White students. This relationship is consistent with findings from the Monitoring the Future study that African-American students have far lower rates of smoking, drinking, and drug use on average than White students.²

We also found that **poorer race relations** are strongly correlated with **higher** reported ATOD problems in all types of schools.

4. Staff Smoking

We asked respondents if there was a location in their school or on school grounds where staff members are permitted to smoke, and what percentage of staff smoke regularly. When all 14 years of data were combined, we found that private schools are more likely than public schools to allow staff smoking at school. In private schools where staff members were permitted to smoke on school property, respondents were more likely to report student ATOD problems than in private schools where staff members were not permitted to smoke. There were no differences in public schools.

When asked what percent of staff smoked regularly, public schools that had a **higher percentage of staff smokers** also reported **greater** tobacco use problems among students.

¹ Terry-McElrath, Y. M., Johnston, L. D., O'Malley, P. M., & Yamaguchi, R. (2005). Substance abuse counseling services in secondary schools: A national study of schools and students, 1999-2003. *Journal of School Health, 75*(9): 334-341.

² Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2011). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2010*. Ann Arbor: Institute for Social Research, The University of Michigan.

5. School Uniforms

Respondents were asked if students in the school were required to wear specific school uniforms. In 2011, one in four schools (25%) required school uniforms (14% of public schools and 81% of private schools). Middle schools (31%) were more likely than high schools (22%) to require uniforms. We found that schools that required school uniforms reported a significantly lower ATOD problem than schools that did not require students to wear uniforms. However, this finding was no longer significant after controlling for whether they were middle schools and/or private schools. Hence, the effect of school uniforms on ATOD problems is most likely due to the characteristics of the schools that require uniforms rather than the use of uniforms per se.

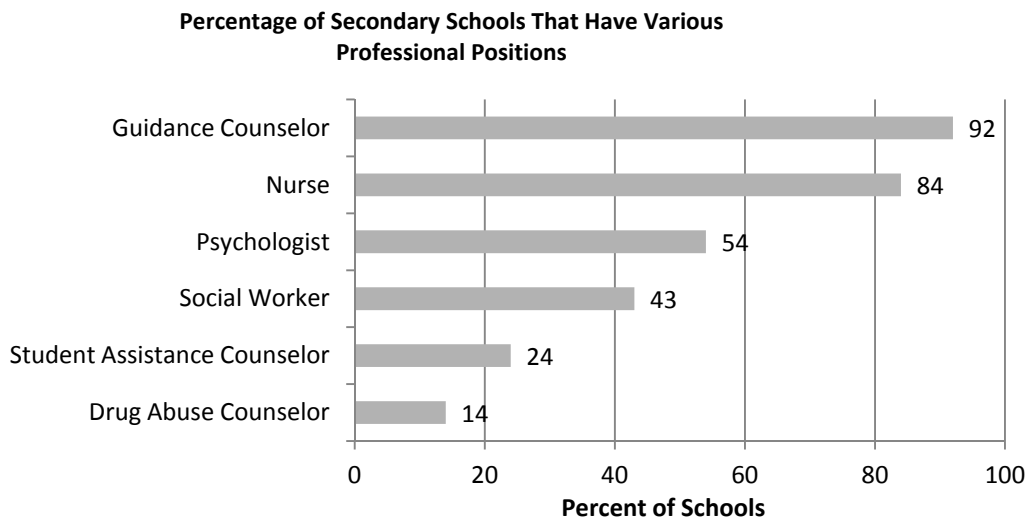
6. Parental Involvement

In previous years of our study we asked respondents about parental involvement in their school. We found that **greater parental involvement** in schools was significantly related to **lower** reported tobacco and illicit drug use problems among students across all 12 years of data. This relationship was particularly significant for middle schools and public schools.

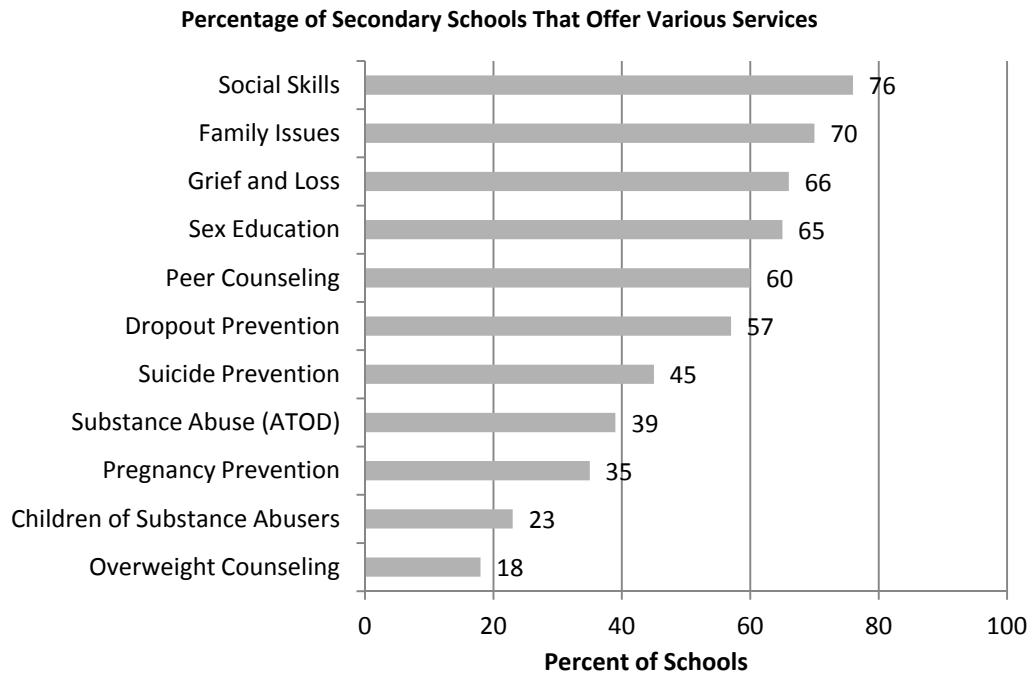
Resources Available to Address ATOD Problems

Counseling Staff and Services

The questionnaire included an item asking which **health care providers** and **other professionals** were available to students. While only 14% of schools said they had a drug abuse counselor, 39% of schools reported offering counseling to students who are substance abusers. Where there was no drug abuse counselor, this type of counseling was carried out by the school guidance counselor, other staff members, or outside counseling services.



We also asked whether specific **counseling and prevention services** were offered to students. More than half of schools offered each of the services listed, with the exceptions of suicide prevention, substance abuse counseling, pregnancy prevention, counseling for the children of substance abusers, and overweight student counseling. In 2010, more schools offered substance abuse counseling to



students (52%) and counseling to students whose parents were substance abusers (35%) compared with schools in 2011.

School Programs and Services

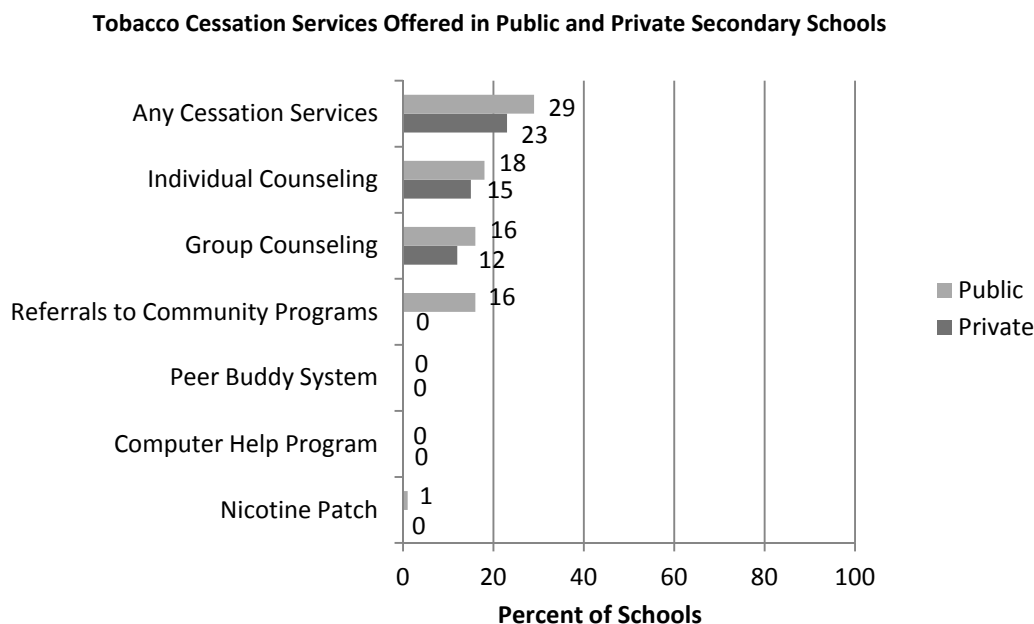
We found that schools in our sample have a variety of ways to deal with their ATOD problems. Responses included the following:

- Personalized ATOD intervention counseling services offered in the school and referrals to services outside the school
- School-sponsored extracurricular activities and groups to divert students from drug use
- Community-sponsored groups and activities
- Commercially and locally developed prevention programs taught in the classroom on a regular basis to all or most students

Some of these measures and their relation to other school issues are described next.

Tobacco Cessation Services

We asked respondents about the specific types of tobacco cessation services available to students. Although the majority of schools surveyed in 2011 offered no services, public schools were more likely than private schools to offer some kind of tobacco cessation service to their students. The graph below illustrates the percentage of schools that offered each service.



ATOD Prevention Programs

Commercially and locally developed prevention programs were taught in the classroom on a regular basis to all or most students. Many schools used locally or state-developed curriculum materials in teaching ATOD prevention to their students rather than packaged, commercially sold programs.

- Most schools (74%) taught ATOD prevention programs in health education classes.
- Less than half of schools (48%) also taught ATOD prevention programs in regular classes other than health education.
- About one in six schools (17%) reported teaching additional ATOD prevention programs aside from those taught in regular classes.

D.A.R.E. was the most popular commercial ATOD prevention program taught in schools. Less than half of 2011 schools (42%) reported that their students were taught the D.A.R.E. program. This percentage has been on the decline since 2002 when the majority of schools (62%) reported that their students were taught D.A.R.E.

School Drug-Testing Policies and Procedures

Drug testing of students is still not a common practice in schools across the country. In 2011, only 20% (33 schools) of the surveyed secondary schools said that they did *any* type of student drug testing. The table below shows the percentage of schools that tested particular student groups. (Some schools tested more than one group of students.) Testing students based on suspicion or cause (13%) was the most common reason for drug testing, followed closely by testing students on an athletic team (9%).

Groups Tested	Percent of Schools
Students based on suspicion or cause	13%
Students on an athletic team (or teams)	9%
Students in other extracurricular activities	7%
Students on school probation	5%
Students who volunteered for testing	4%
Students randomly selected from all students	1%
All students	0%

In 2011, 8% (thirteen schools) reported using **at least one method** for carrying out **random** drug tests on student athletes, students in extracurricular activities, student drivers, or a sample of all students. All of these schools used urine tests (13 schools), one also used a hair test, and one also used an oral swab. Two schools (1%) reported testing student athletes for anabolic steroids.

Actions Taken When a Student Tests Positive on Random Drug Test

We also asked what the usual consequences were for students who tested positive on random drug tests, whether on the first, second, or third infraction. Most schools did not expel or suspend students from school, or contact law enforcement officials as a result of positive random drug tests. Instead most schools suspended the student from athletic teams or extracurricular programs and required the student to participate in education, counseling, or treatment programs.

When A Student Tests Positive On Random Drug Test (on First, Second, or Third infraction)	Percent of (13) Schools That Use Random Drug Tests
Student suspended from one or more athletic teams	92%
Student required to participate in education, counseling, or treatment program	92%
Student suspended from extracurricular activities	92%
A confirmatory test is made	70%

When A Student Tests Positive On Random Drug Test (Continued)	Percent of (13) Schools That Use Random Drug Tests
Law enforcement officials notified	38%
Student suspended from school	31%
Student given detention or in-school suspension	23%
Student expelled from school altogether	15%
Other action	15%
Student sent to an alternative school	15%

Student athletes and students involved in extracurricular activities are groups that are more commonly given random drug tests. In 2011, most schools that conducted tests (70%) retested a student to confirm the positive drug test.

ATOD Summary

While academic underachievement is the most cited problem facing schools, administrators in our study still identified ATOD prevention as an important issue.

School factors correlated with more ATOD problems include more school services and professional care providers, staff smoking, and poorer race relations. Factors correlated with fewer ATOD problems include greater parental involvement, and greater percentages of African-American students. Obviously, these relationships may not all reflect a causal association.

Most schools use locally or state-developed curriculum materials in teaching ATOD prevention to their students rather than packaged, commercially sold programs. In some cases, elements of various commercial programs are combined with locally developed programs. Usually ATOD prevention is taught in health education classes. Less than half (42%) of the schools in 2011 reported their students were taught D.A.R.E., but, as previously mentioned, that percentage has been on the decline since 2002.

In this year's survey, one in five schools (20%) conducted some type of drug testing. While some schools tested more than one group of students, school administrators reported that suspicion or cause was the most common reason for drug testing, followed by athletic team membership.

In 2011, 8% of schools used some method of random drug testing. When students tested positive to random drug tests, schools tended to suspend the students from athletic teams or extracurricular programs, and required the students to participate in education, counseling, or treatment programs.

Very few schools (1%) reported testing for anabolic steroids.

Student Participation in Physical Education

In 2011, school administrators were asked about student participation in physical education (PE) classes at the survey target grade level in their school—8th, 10th, or 12th grade. School administrators were asked whether their school required PE, what percentage of students took PE, how many days per week the students had PE class, the normal length of PE classes, and what percentage of boys and girls were involved in interscholastic/varsity sports or intramural sports/physical activity clubs. Below are average or proportional responses for each of the questions on PE for **middle schools and high schools**:

Physical Education Participation	Middle Schools	High Schools
Percent of schools that required PE to be taken in some grade in their school	94%	96%
Percent of schools that required PE in the target grade (8, 10, or 12)	73%	35%
Average percent of students who took PE in target grade (8, 10, or 12)	89%	53%
Average (mode) number of days of PE class per week	5 days	5 days
Normal length of PE class (minutes)	49 minutes	55 minutes
Normal amount of vigorous activity in PE class (minutes)	36 minutes	38 minutes
Average percent of boys in interscholastic/varsity sports	38%	43%
Average percent of girls in interscholastic/varsity sports	34%	34%
Average percent of boys in intramural sports or physical activity clubs	31%	14%
Average percent of girls in intramural sports or physical activity clubs	26%	11%

Overall, 47% of the schools required PE for the target grade, but the percentage decreased sharply at higher grade levels. Nearly all schools required PE to be taken in some grade in their school.

Promoting Physical Activity and Fitness

In 2011, one in three school administrators (30%) reported that significant activities were underway to promote physical activity among students. These efforts were often part of a comprehensive school wellness policy that was being implemented to promote a lifetime of good health.

Two out of three schools (66%) reported that they gave **physical fitness tests** to students in their sample grade. One in three schools (37%) currently measures student **body mass index (BMI)**. A majority of schools that measured BMI provided the results to parents or guardians. One in four schools (24%) included activity breaks other than PE during the school day.

Middle schools were more likely to report significant activities underway in their schools to promote physical activity, to require PE in the target grade, to offer activity breaks, and to give physical fitness tests than were high schools in the study. Middle schools were also more likely to provide the results of the BMI tests and physical fitness tests to parents or guardians.

School Facilities Available for Student Physical Activity

We also asked what **indoor facilities** schools had for students. The majority of schools had a gymnasium (94%), and a weight room was mentioned for nearly three-quarters of schools (71%). Only four schools (2%) had none of the indoor facilities on our list. With the exception of gymnasiums, high schools generally had more of the indoor facilities than did middle schools.

Schools' Indoor Facilities	Percent of Schools
Gymnasium(s) (courts for basketball, volleyball, etc.)	94%
Weight room	71%
Wrestling room	39%
Multipurpose room(s)	30%
Cardiovascular fitness center	18%
Dance studio	13%
Climbing wall	11%
Indoor pool(s)	9%
Indoor track(s)	4%
Racquetball, squash, or handball court(s)	2%

When asked about **outdoor facilities**, the majority of schools **had** football/soccer fields, baseball/softball fields, outdoor tracks, and general use fields. Only four schools (2%) reported that they had no outdoor facilities on our list. With the exception of outdoor basketball courts and volleyball courts, high schools generally had more of the outdoor facilities on our list than did middle schools.

Schools' Outdoor Facilities	Percent of Schools
Baseball or Softball field(s)	80%
Football or Soccer field(s)	79%
Outdoor tracks for walking, jogging, or running	66%
General use field(s)	62%
Outdoor tennis court(s)	48%
Outdoor basketball court(s)	41%
Cross-country course or trails	27%
Outdoor pool(s)	8%
Outdoor volleyball court(s)	7%

Physical Education Summary

About half of schools (47%) require PE for the target grade; this percentage decreases sharply at higher grade levels. Two of three sample schools reported that they gave physical fitness tests, and one in three reported that they measured students' BMI. In 2011 about one in three sample schools (30%) reported that significant activities were underway to promote physical activity among students.

Food and Nutrition Policies and Programs in Schools

In 2011, school administrators were asked a number of questions about school food and nutrition programs in their school. Principals and food service managers were the primary respondents for this section of the questionnaire. The following are some of the interesting findings to emerge.

School Meal Planning

In 2011 nearly all schools (99%) reported offering lunch to students, while most (88%) offered breakfast. At lunch time, à la carte items were available in three of four schools (74%); high schools were slightly more likely to offer à la carte items than middle schools.

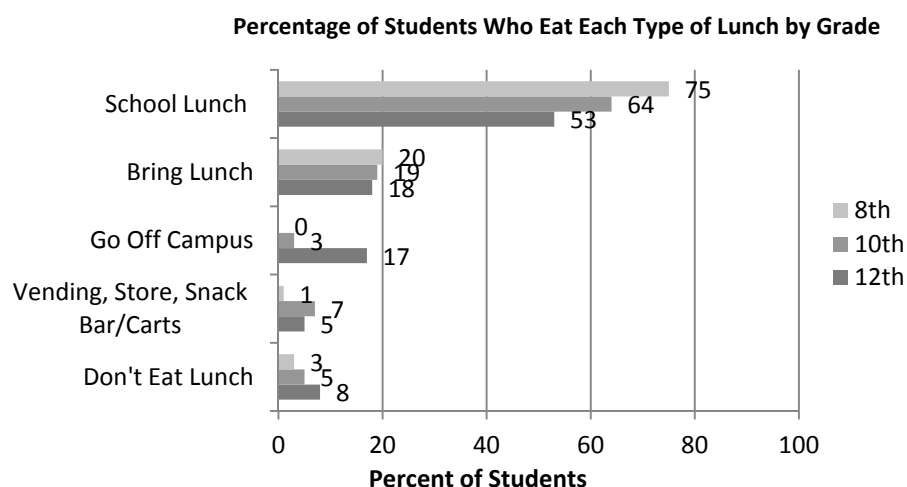
Most schools (83%) participated in the USDA reimbursable National School Lunch Program, and about one in three (34%) participated in the USDA-sponsored Team Nutrition program. Most schools reported that food service menu decisions were made at the district level, while 29% reported that their school was involved in the decision making, and 18% reported that external contractors were involved.

School Lunch Options

School administrators were asked what percentage of students in their target grade—8th, 10th, or 12th—ate lunch offered by the school, brought their lunch, went off campus to buy lunch, did not eat, or ate food from vending machines, a school store, or snack bars/carts. Here are the average responses for all schools in the sample:

- Percent of students who ate the school lunch (including à la carte): 64%
- Percent of students who brought their own lunch: 19%
- Percent of students who went off campus to buy lunch: 7%
- Percent of students who did not eat lunch: 5%
- Percent of students who bought lunch from vending machines, store, or snack bar/carts: 4%

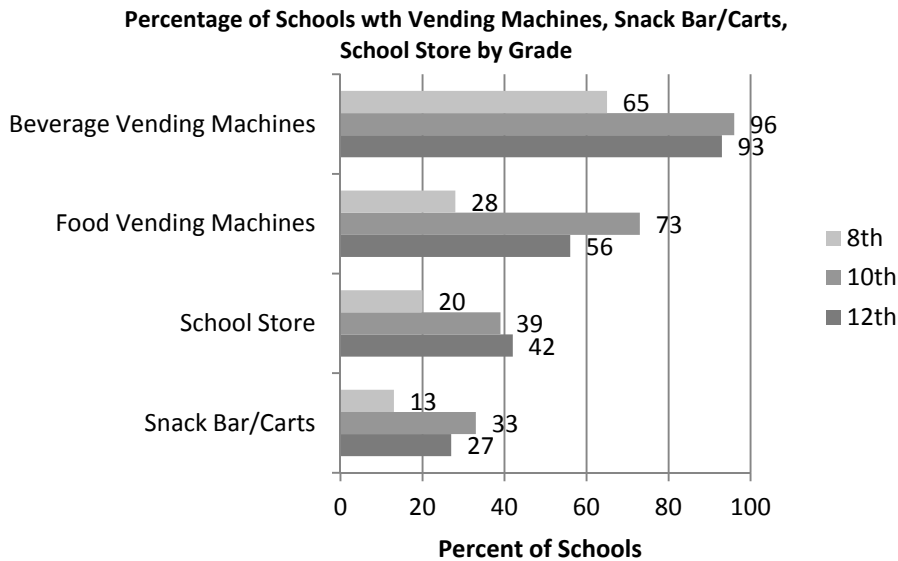
Students in 12th grade were more likely than 8th graders to go off campus to buy lunch, or not to eat, while students in 8th grade were more likely than 12th graders to eat the school lunch.



Vending Machines, Snack Bars/Carts, School Store

Vending machines dispensing beverages were available in five of six schools (84%), and vending machines selling food or snacks were available in half (51%). One in four high schools (24%) and one in seven middle schools (14%) reported selling regular soft drinks from vending machines in 2011—down considerably from earlier years of the study.

High schools were more likely to have vending machines, school stores, and snack bars/carts than were middle schools.

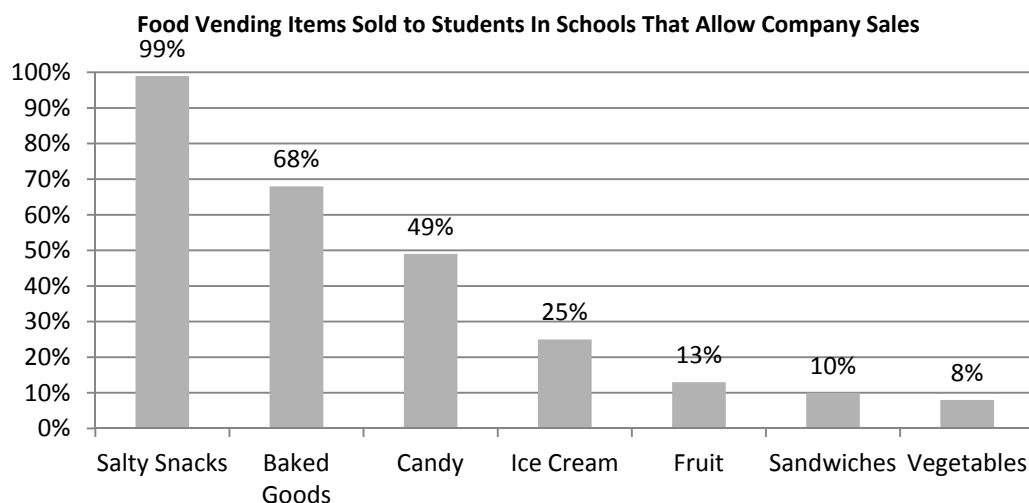


During the school day, middle schools were more likely to restrict access to their soft drink vending machines than were high schools.

Food Vending Provided by a Company

In 2006 about two of three schools (63%) had food vending machines, but by 2011 that percentage had declined to one in two (51%). Among schools with food vending machines in 2011, most schools (88%) allow a vending company or beverage supplier to sell food items in the student vending machines.

We asked the schools that **allow a company to sell items** in their food vending machines what specific items were offered. The following food items (in order of frequency) were offered to students: salty snack items (chips, Fritos, crackers, pretzels, etc.); sweet baked goods (cookies, cakes, etc.); candy; ice cream or frozen yogurt; fruit; sandwiches; vegetables.



Administrators in schools that allow companies to sell food items in student vending machines were also asked who provided the specific items for sale—a beverage supplier, other vending company, or the school itself. Overall, vending companies (rather than beverage suppliers or the school itself) were most often responsible for providing the items that were available in food vending machines. This was especially true for the less-healthy snack items offered in food vending machines in 2011:

- When some kind of salty snack item (chips, Fritos, crackers, pretzels, etc.) was offered, 73% of schools reported that it was provided by vending companies.
- When some kind of sweet baked good (cookies, cakes, or other sweet baked goods) was offered, 71% of schools reported that it was provided by vending companies.
- When candy was offered, 83% of schools reported that it was provided by vending companies.
- When ice cream was offered, 72% of schools reported that it was provided by vending companies.

Healthier items such as vegetables, sandwiches, and fruit were less common in student vending machines and more likely to be provided for vending sale by the school itself.

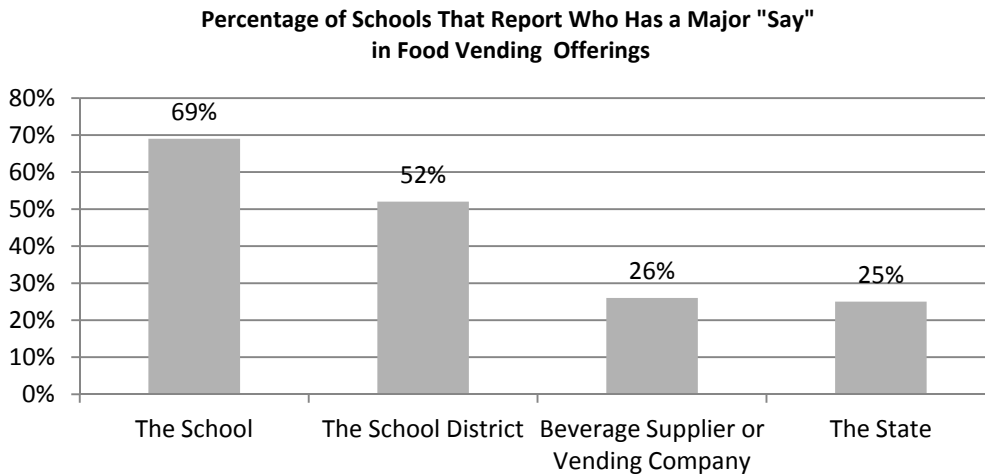
- When fruits were offered, six of eight schools reported that the school provided them.
- When sandwiches were offered, four of six schools reported that the school provided them.
- When vegetables were offered, four of five schools reported that the school provided them.

Thus, schools seemed to be more interested in providing healthier foods in student vending machines, while vending companies usually provided the less healthy snacks.

Food and Beverage Vending Decisions and Profits

School administrators were also asked to report the profit their school made when a company was allowed to sell food items in student vending. In 2011, schools reported that they made on median \$1,000 in profits from food vending machine sales to students. (That means that half made more than \$1,000 and half made less.) This compares to the median of \$1,500 in profits that schools reported in profits from exclusive beverage contracts. (A median is used here, because some schools reported that

they made \$0 from vending and others reported as much as \$15,000 in profits from food vending sales to students.) We also asked school administrators about decisions involving what food items were offered in student vending machines. For those schools that offer food vending to students, we specifically asked who had a major “say” in what was offered in these machines. Many administrators chose more than one category:



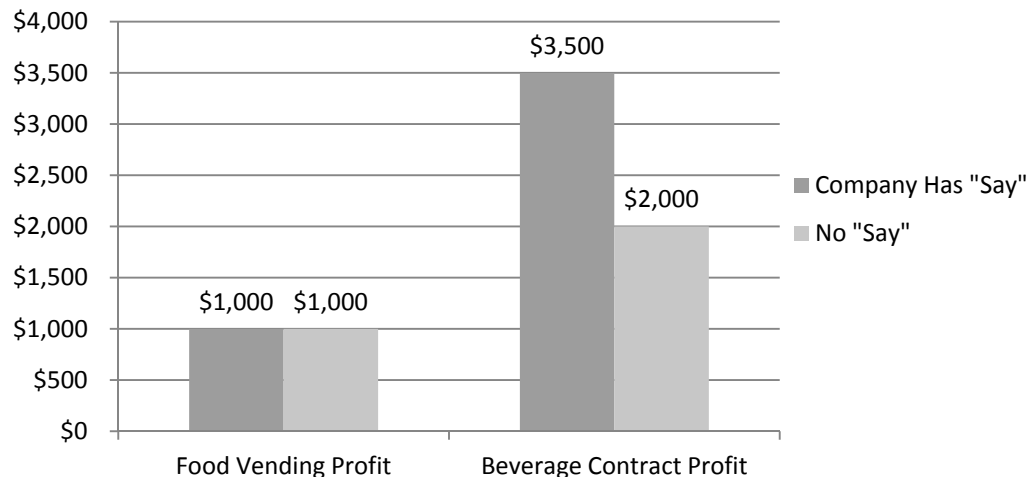
Additionally, 4% of respondents reported some other specific answer such as a wellness committee or other group within the school or district. Overall, the table shows that the beverage supplier or vending company was ranked behind the district and the school itself in having a major say about the food items offered in vending machines.

Administrators were asked a similar question about who had a major say in deciding what **beverages** were offered in student vending machines. For all schools with beverage vending machines, only 19% reported that the beverage supplier or other vending company had a major say in deciding what beverage items were offered in student vending machines at their school. In the case of schools that also had exclusive beverage contracts, only 20% of administrators reported that the beverage supplier or other vending company had a major say in deciding what beverage items were offered. This may reflect the fact that soft drink beverage vending has recently come under scrutiny by parents and schools.

We explored the schools' reported profits from vending sales when a beverage supplier or vending company had a major say in what items were offered in vending machines. When we combined all four years (2008-2011) of available data, the results were inconsistent. The figure below illustrates the median annual profits reported by schools where a company was or was not reported to have a major say in beverage or food vending offerings.

When companies with exclusive beverage contracts had a major say in beverage vending offerings, schools made **more** profit; when a company selling food items in vending machines had a major say in food vending offerings there was no apparent difference in school profits from food vending.

Median School Profits for Food Vending and Beverage Contract Sales When Company Has a Major "Say" in Offerings



Exclusive Beverage Contracts

School administrators were asked whether their school or district had an exclusive contract with a beverage supplier (such as Coca-Cola, PepsiCo, or Cadbury Schweppes/Dr. Pepper Snapple) to sell soft drinks and other beverages to students. In 2011, the majority (53%) reported that their school or district had such a contract. The percentage of schools with exclusive contracts has been on the decline since 2004, when 75% of schools reported such a contract. Interestingly, in 2011 only about one in four schools (28%) sold regular soft drinks under the contract.

- In 2011, 41% of schools reported that the exclusive contract was an agreement between the company and their school only, 36% reported a district-only contract, while 23% reported that the agreement was made with both their school and district.
- Public schools (59%) were more likely than private schools (24%) to have an exclusive contract with a beverage supplier.
- High schools (54%) were about as likely as middle schools (51%) to have an exclusive contract with a beverage supplier.

Administrators were also asked specifics about the terms and incentives of these beverage contracts that encouraged schools and districts to sell more beverages. In 2011 the following terms and incentives were common:

- 71% reported that their school or district received a specified percentage of beverage sales receipts;
- 38% reported that their school or district received incentives, such as cash awards or donations of equipment, supplies, or other donations, once total beverage sales receipts exceeded a specified amount;
- 20% of schools allowed the beverage supplier to advertise (beyond the vending machine itself) in their school building, on school grounds, or in school buses.

How effective were these terms and incentives in increasing sales of beverages to students and increasing school profits? When we combine data for all eight years of the study, the contract terms and incentives designed to increase sales did appear to work:

- Schools that received cash and equipment incentives when beverage sales exceeded a specified amount reported a median profit of \$4,000 from beverage sales, compared to \$3,000 for schools without these incentives.
- Schools that received a specified percentage of the beverage sales receipts reported a median \$4,000 from beverage sales, compared to \$1,500 for schools without this incentive.
- Schools that allowed the beverage supplier to advertise (beyond the vending machine itself) in their school reported a median of \$5,000 from beverage sales, compared to \$3,000 for schools without advertising.

The advantage in beverage sales and profits due to these terms and incentives has been a consistent finding across all eight years of data from this study, although the disparities seem to be gradually declining as the overall reported school profits from beverage contracts have declined each year since 2004. In 2004, schools reported a median profit of \$6,000 from exclusive beverage contracts, compared to \$1,500 in 2011.

Efforts to Improve Student Nutrition

With rising concern about student nutrition and obesity, many schools in recent years have attempted to make changes in their school lunch program and policies regarding food sales. School administrators were asked if significant activities were currently underway at their school or district to promote healthier eating and drinking practices among students. About one in three schools (37%) reported such efforts currently underway to improve student nutrition and health on campus.

- Schools also reported that changes were being made to their nutrition guidelines. As a result, more nutritious foods such as fruits and vegetables were being offered to students at lunch and in vending machines, while less nutritious foods such as soft drinks, candy, and fried foods were being eliminated, or restrictions were being placed on their availability.
- Schools also reported added nutrition and wellness education through PE, health class, or after-school classes.
- A few schools mentioned that healthy eating promotions and nutrition teams or clubs were being started on campus.

Based on responses to other questions in the survey, these efforts appear to be making important changes to the foods offered in schools nationwide. Compared to data from 2004 to 2006, data from recent years of the survey have confirmed that schools are offering fewer of the less healthy items in vending machines, school stores, snack bars/carts, and as à la carte lunch options.

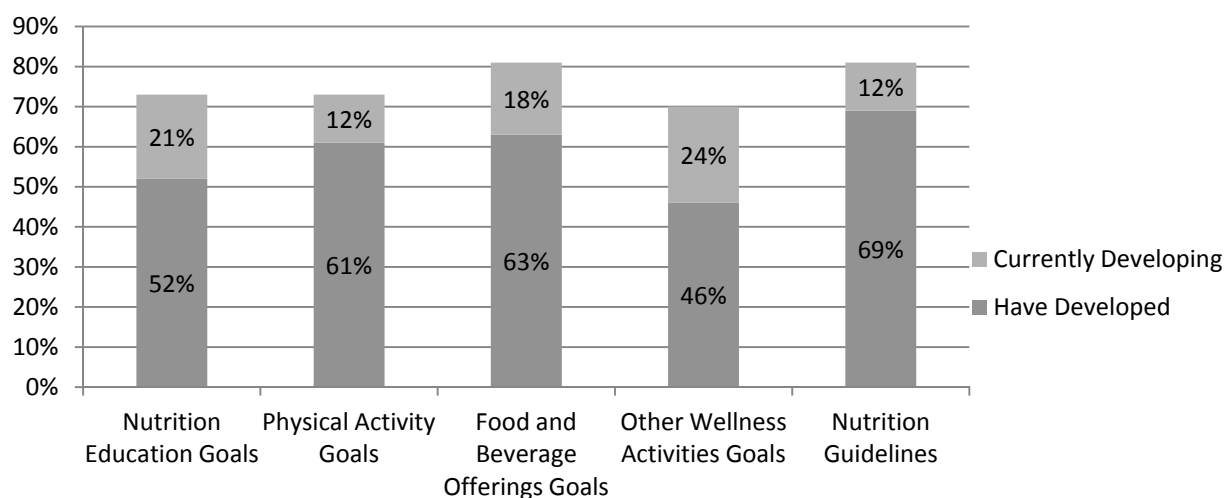
School Wellness Policies

In the National School Lunch Act of 2004, the U.S. Congress established a new requirement that school districts with a federally-funded school meals program develop and implement wellness policies that address nutrition and physical activity by the start of the 2006–2007 school year.

- In 2011, 85% of *public* schools reported that a school wellness policy had been **established**; when we included schools in districts that are in the process of creating a school wellness policy, the percentage increased to 91% of public schools.
- Public middle schools (89%) were slightly more likely than high schools (83%) to report that a school wellness policy had been established by 2011.
- Only one in three *private* schools (32%) had established a wellness policy by 2011; when we included private schools in the process of creating a school wellness policy, the percentage jumped to 69% of private schools.

Schools were also asked whether **explicit goals and guidelines** had been developed as part of the policy to promote student wellness through nutrition education, physical activity, or other school-based activities. In 2011, most public secondary schools had developed or were developing these goals and guidelines:

Percent of Public Secondary Schools Developing Explicit Wellness Policy Goals or Guidelines



School administrators were asked to identify those who were involved in the development of their school or district wellness policy. The table below shows the percentages of public school respondents who identified each of the following policy participants:

School Wellness Policy Participants (Public Schools)	Percent of Schools
School food personnel	74%
School administrators	70%
Teachers	66%
Parents	60%
Students	49%
School board members	42%
Other members of the public	23%
Other school personnel (mostly health-related staff)	17%

Effectiveness of School Wellness Policies

Earlier in the questionnaire, school administrators were asked about their opinion on efforts at their school and/or district to promote healthy nutrition and physical activity among students. In schools that had an established school wellness policy, administrators were significantly **more likely** to report that their school and school district were making a serious effort to promote healthy eating and drinking habits and to promote increased physical activity among students.

Most administrators reported that students in their survey target grade had received formal classroom instruction on nutrition and dietary behavior (82%) and physical activity, exercise, and health-related fitness (87%). Also, we noted that in schools with an established wellness policy, administrators reported a significantly **higher** percentage of students receiving formal instruction in these areas. So it appears that established school wellness policies are having a positive influence on the school environment and efforts to promote student wellness.

Food and Nutrition Summary

Most schools participate in the USDA reimbursable National School Lunch Program, and one in three participate in the USDA-sponsored Team Nutrition program. Almost two thirds of students in secondary schools eat a school lunch, while about one in five bring a lunch from home. Although many schools report that they are attempting to improve the nutritional quality of foods offered to students, soft drinks and snack foods with a higher fat or calorie content are still widely available in vending machines and school stores, particularly in high schools. One in three schools report significant efforts currently underway to improve student nutrition and health on campus.

Conclusions

As part of the No Child Left Behind Act of 2001, schools are required to meet the challenge of creating a safe, drug-free learning environment for all students. School administrators in our study identified alcohol, tobacco, and other drug (ATOD) use as an important issue, following student disrespect of teachers and academic underachievement. School factors that are correlated with more ATOD problems include having more school services and professional care providers, more staff who smoke, and poorer race relations. Factors associated with fewer ATOD problems include greater parental involvement and greater percentages of African-American students. It is important to keep in mind that these relationships may not all reflect a causal association.

Given that providing a safe, drug-free environment is a priority in today's schools, administrators have multiple ways to deal with ATOD problems. Most schools use locally or state-developed curriculum materials in teaching ATOD prevention to their students rather than packaged, commercially sold programs. In some cases, elements of various commercial programs are combined with locally developed programs. ATOD prevention is usually taught in health education classes.

In this year's survey, one in five schools (20%) conducted some type of drug testing. While some schools test more than one group of students, most testing of students is based on suspicion or cause, followed by athletic team membership. How effective drug testing is in curtailing student drug use remains an unanswered question. When students tested positive to random drug tests, schools tended to suspend the students from athletic teams or extracurricular programs and required the students to participate in education, counseling, or treatment programs.

In addition to concerns about students' academic achievement and ATOD use, school administrators and other school personnel are also examining school policies and practices that may contribute to reducing obesity among youth. With rising concerns about student nutrition and obesity, many schools in recent years have attempted to make changes in their school lunch program and in policies regarding food sales in their schools.

Many school administrators reported that their schools are making efforts to improve student nutrition and health on campus, often as part of a school or district wellness policy. The most common activity is making changes to the types of foods available to students at lunch and in vending machines by offering more nutritious foods such as fruits and vegetables. Other activities include removing or restricting access to soft drinks and candy. Also, many schools reported that changes are being made to their health programs to emphasize healthier eating, the risks of obesity, and the need for more physical activity. Schools reported changes to PE programs, required more often by middle schools than high schools, and added physical fitness activities before, during, and after school. Finally, some schools mentioned that healthy eating promotions and clubs are being started on campus.

The YES study intends to continue to track these policies and practices in American secondary schools, and to conduct analyses aimed at determining their effects. We hope to provide school leaders with better information and guidance that will allow them to serve their students more effectively in preventing substance abuse, reducing overweight, and improving student health generally. Tobacco use and obesity are the two leading causes of preventable death and disease in this country, and schools have an important role to play in helping to prevent these problems.



**Survey Research Center
Institute for Social Research
University of Michigan
P.O. Box 1248
Ann Arbor, MI 48106-1248**