KIDS' SAFE & HEALTHFUL FOODS PROJECT

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Out of Balance

A Look at Snack Foods in Secondary Schools across the States

Robert Wood Johnson Foundation

PEW HEALTH GROUP

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The Kids' Safe and Healthful Foods Project is an initiative launched by The Pew Charitable Trust and the Robert Wood Johnson Foundation that provides a nonpartisan analysis and evidence-based recommendations on policies that impact the safety and healthfulness of school foods. **For more information, see HealthySchoolFoodsNow.org.**

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Introduction

Since 1980, rates of childhood overweight and obesity have tripled. While several factors have contributed to this, the bottom line is that many children are eating more calories than they burn, with a significant quantity of these calories consumed during the school day.[1] Overweight children and adolescents are at an increased risk of health problems, including cardiovascular disease, depression, high blood pressure, type 2 diabetes, breathing problems, sleep disorders, and high cholesterol.[2-7]

> Even small changes to students' school-based diets—like replacing a candy bar with an apple—may reduce their risk of tooth decay, obesity, and chronic illness through decreased calorie, fat, and sugar intake.

Many schoolchildren consume up to half of their calories at schools, and school foods and beverages can have a significant impact on children's diets and weight. In addition, the availability of snack foods progressively increases by school level.[8] Half of secondary school students consume at least one snack food[i] a day[9] at school, an average of 273 to 336 calories per day. This amount is significant considering that an excess of 110 to 165 calories per day may be responsible for rising rates of childhood obesity.[10]

The Kids' Safe and Healthful Foods Project—a collaboration between The Pew Charitable Trusts and the Robert Wood Johnson Foundation—recently analyzed data on the types of snack foods and beverages sold in secondary schools[ii] via vending machines, school stores, and snack bars (see Figure 1). The data set was extracted from the Centers for Disease Control and Prevention's (CDC) *School Health Profiles 2010: Characteristics of Health Programs Among Secondary Schools in Selected U.S. Sites*—a biennial assessment that uses surveys of principals and lead health education teachers to measure health policies and practices in secondary schools on a state-by-state basis across the nation.[iii] (See Appendix 1 for more information on the methodology of this report.)

FIGURE 1 Categories of Snack Foods Used in the CDC's School Health Profiles

Healthy snacks: nutrient-rich, low-calorie

- fruits
- non-fried vegetables

Less-healthy snacks: low-nutrient, high-calorie

- full-fat baked goods
- salty snacks
- chocolate candy
- other types of candy
- soda and fruit drinks (not 100% juice)

[i] For the purposes of this report, the term "snack foods" applies to all foods and beverages sold outside of the meal programs. These include options that are both healthy (e.g., carrots, apples) and less healthy (e.g., chips, candy bars) and sold in various locations (e.g., vending machines, school stores).

[ii] Secondary schools refer to schools that serve students in grades 6 through 12.

[iii] Data include food and beverages sold from vending machines or at the school store, canteen, or snack bar. Food and beverages sold in a la carte lines are not included in these data. The U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) have jointly published the Dietary Guidelines every five years since 1980. They provide evidence-based nutrition information and advice for people ages 2 and older, and serve as the basis for federal food and nutrition education programs. With the exception of Illinois, each state's sample size and response rate was sufficient to represent all public secondary schools in that state.

Evidence shows that strong nutrition standards for snack foods sold in schools reduce students' weight gain.

Ensuring that schools sell nutritious foods is critical to improving children's diets. Evidence shows that strong nutrition standards for snack foods sold in schools reduce students' weight gain.[11] Furthermore, the availability of low-nutrient, high-calorie snack foods during the school day is associated with increased intake of calories,[12, 13] and decreased intake of fruits and vegetables among students.[14, 15] Even small changes to students' school-based diets—like replacing a candy bar with an apple—may reduce their risk of tooth decay, obesity, and chronic illness through decreased calorie, fat, and sugar intake.

Key Findings

1. Nationally, the availability of snack foods in secondary schools varies tremendously from state to state. For example, only 4 percent of the schools in Connecticut sell non-chocolate candy, while 66 percent of the schools in Louisiana do so. In Idaho, 46 percent of secondary schools sell chocolate candy, but only 2 percent of schools in West Virginia do so. Variation also exists regarding the availability of fruits and vegetables (see Appendices 2 and 3). And, while less-healthy beverages such as soda and fruit drinks are available in fewer than half of schools in most states, the variation among states is still quite large—only 3 percent of the schools in West Virginia sell them, while more than half do so in Utah. This variation is likely the result of a disparate patchwork of policies at the state and local levels. While the majority of states have a policy in place that addresses snack foods in schools, the quality of these policies varies. Additionally, fewer than 5 percent of school districts have food and beverage policies that meet or exceed the 2010 Dietary Guidelines for Americans (DGA).[iv, 16]

2. Under this patchwork of policies, the majority of our nation's children live in states where less-healthy snack food choices are readily available. In nearly three-quarters of the states, a substantial percentage of schools[v] sell low-nutrient, high-calorie snacks such as chocolate, other candy, or full-fat salty chips. Indeed, only two states (West Virginia and Rhode Island) have limited availability of chocolate candy, other candy, full-fat salty snacks, and baked goods in snack food venues; fewer than 10 percent of their schools sell these items.

3. Overall, the availability of healthy snacks such as fruits and vegetables is limited (see Figures 2 and 3). The vast majority of secondary schools in 49 states *do not* sell fruits and vegetables in snack food venues. Among states and the District of Columbia, the median percentage of schools that sell fruit in school stores, snack bars, or vending machines is 28 percent. In 34 states and the District of Columbia, fewer than one-third of secondary schools sell fruits as an option in school stores, snack bars, or vending machines. In addition, the median percentage of schools selling vegetables in snack food venues is 19 percent. In 46 states and the District of Columbia, fewer than one-third of secondary schools sell vegetables in snack venues.

Successful Snacking

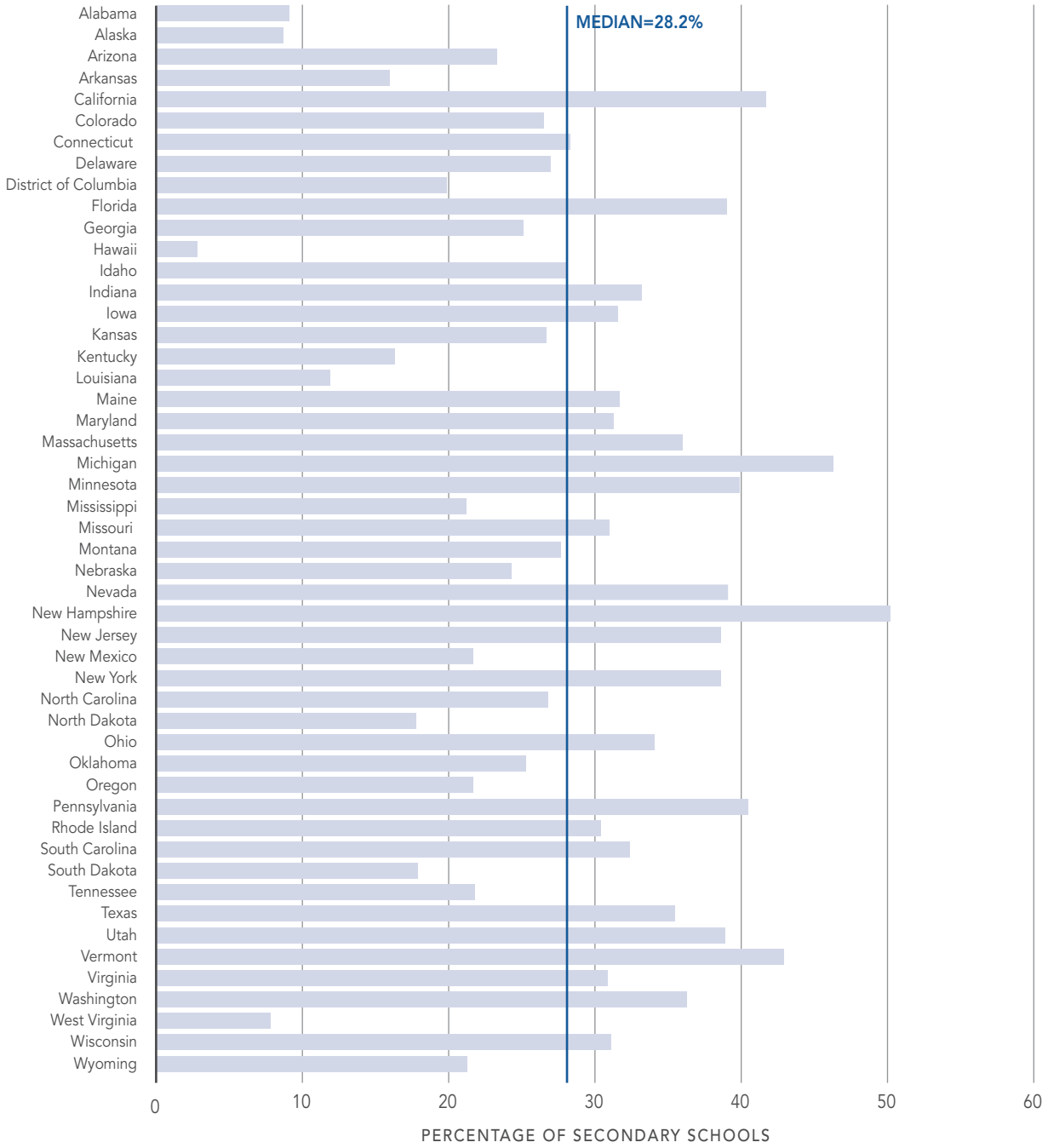
- Half of the schools in **New Hampshire** offer fruit options in school stores, snack bars, or vending machines.
- More than one-third of the schools in **Michigan** sell vegetables in snack venues.
- Only 11 percent of schools in **Alabama** sell full-fat salty snacks.
- Two percent of the schools in **Rhode Island** sell non-chocolate candy.
- Three percent of the schools in **West Virginia** sell soda or fruit drinks.

[iv] The U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) have jointly published the Dietary Guidelines every five years since 1980. They provide evidence-based nutrition information and advice for people ages 2 and older, and serve as the basis for federal food and nutrition education programs.

[v] "States with a substantial number of schools" is defined as states with greater than or equal to 25 percent of schools selling full-fat baked goods, salty snacks, chocolate candy, or other types of candy.

FIGURE 2

The percentage of secondary schools by state that allow students to purchase fruits* as snacks in school stores, snack bars, or vending machines (2010)



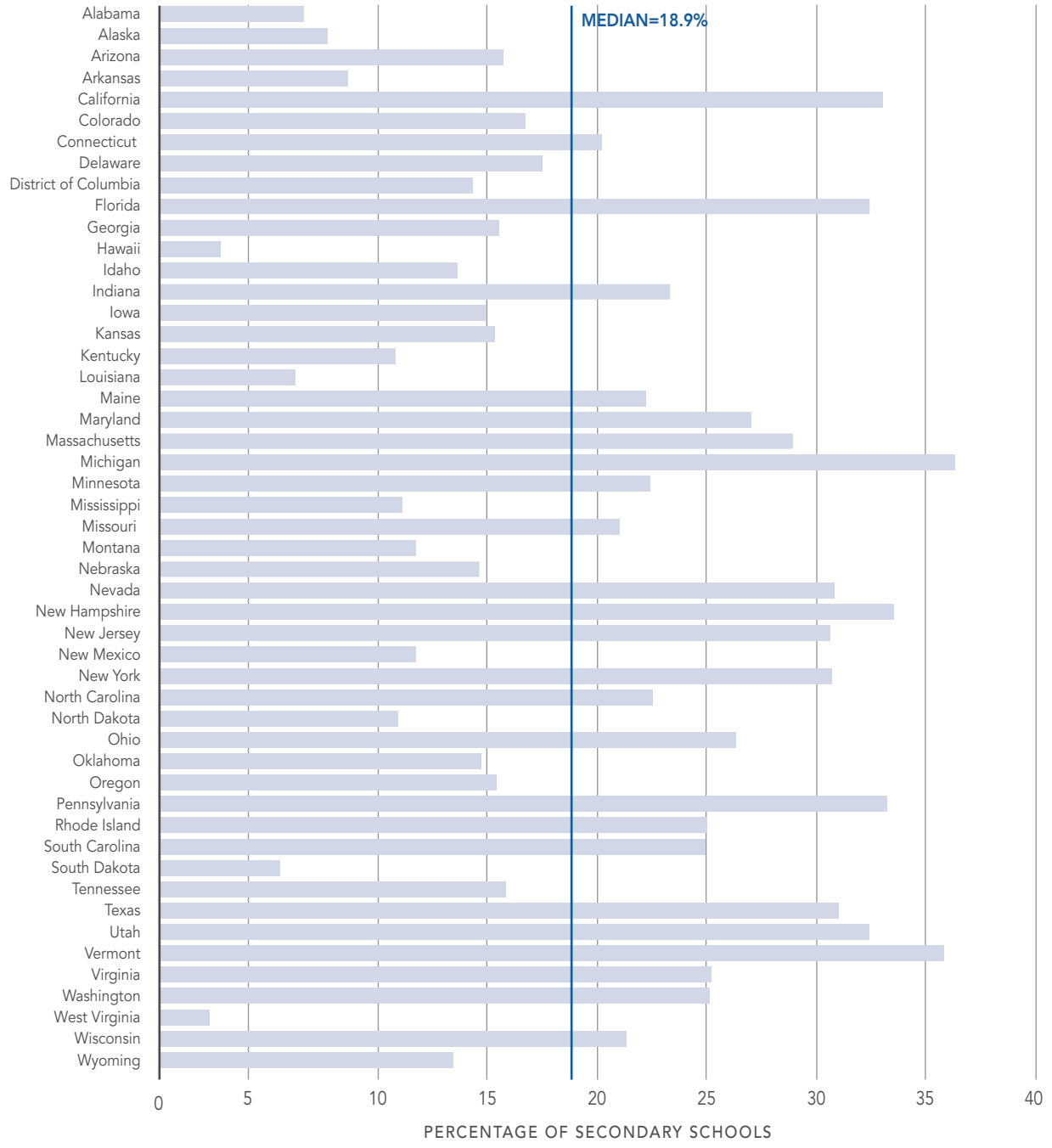
The median value is for all 50 states, except Illinois.

*The Centers for Disease Control defines "fruits" so as to exclude fruit juices.

SOURCE: School Health Profiles, 2010

FIGURE 3

The percentage of secondary schools by state that allow students to purchase non-fried vegetables* as snacks in school stores, snack bars, or vending machines (2010)



The median value is for all 50 states, except Illinois.

*The Centers for Disease Control defines "non-fried vegetables" so as to exclude vegetable juices.

SOURCE: School Health Profiles, 2010

4. When states don't differentiate between more- and less-healthy snacks, the overall snack food environment suffers. When schools group all snack foods together without distinguishing between healthy and less-healthy items, efforts to make nutritional modifications can have contradictory results. In other words, reducing *all* snack foods limits the availability of both healthy (fruits and vegetables) and less-healthy (candy and soda) snacks. Indeed, nine states, including the District of Columbia, rank in the bottom half of those selling *both* healthy and less-healthy snack foods. Conversely, 11 states have a high availability of both types of snacks.

5. While many secondary schools reduced the availability of less-healthy snack foods between 2002 and 2008,[17] progress has since stalled. For example, from 2002 to 2008, Oklahoma made significant progress in reducing the number of schools selling chocolate candy—down from 81 percent to 46 percent. However, there was only a two percentage point reduction from 2008 to 2010. Furthermore, between 2008 and 2010, four states (Hawaii, Kentucky, Nevada, and Pennsylvania) showed a more than five percentage point increase in the number of schools selling chocolate candy, other candy, or salty snacks (see Appendices 4, 5, and 6). Only five states expanded the availability of fruits by at least five percentage points (Idaho, Minnesota, Mississippi, Montana, and Washington) and just three did so for vegetables (Nevada, North Dakota, and Washington) (see Appendices 7 and 8).

Discussion

With nearly one young person in three overweight or obese,[18] the availability of low-nutrient, high-calorie snack foods in schools is of increasing concern. The improvements in the snack food environment seen before 2008 clearly indicate that schools can successfully change their snack food offerings. After a period of slowed progress since 2008, it is important to revisit the nutrition standards for snack foods sold in schools and to support the creation of healthy school snack food environments across the country.

To ensure children across the country have access to healthy snacks at school, consistent standards are needed. The Healthy, Hunger-Free Kids Act (HHFKA) of 2010 directs the U.S. Department of Agriculture (USDA) to update nutritional standards for foods sold in schools, including the snack foods sold in vending machines, school stores, and snack bars.

What Is an HIA?

An HIA is a prospective research tool that provides an opportunity to ensure a careful consideration of any possible unintended consequences, benefits, and impacts of policies before they are adopted. From this assessment, actions can be recommended that will minimize adverse impacts and optimize beneficial effects.

The Kids' Safe and Healthful Foods Project recently conducted a study known as a health impact assessment (HIA)[vi] that summarized the most current understanding regarding how a national policy on snack foods and beverages sold in schools would impact student health.[19] This HIA, which included an extensive literature review, stakeholder interviews, and financial analysis, found that a strong nutrition-based school snack foods policy is likely to result in important improvements to students' health by reducing their consumption of low-nutrient, high-calorie foods and increasing that of healthy foods.

This finding is buttressed by that of a more recent 2012 study[20] that reported that children and teens in states with strong policies restricting the sale of less-healthy snack foods in schools gained less weight over a three-year period than those living in states with no such standards. Additionally, students who were overweight or obese in fifth grade were less likely to remain so by the time they reached eighth grade if they lived in a state with a strong snack food guideline than if they lived in a state without one.

The health benefits received by students in states with strong nutrition standards should be available to all of the nation's schoolchildren. While the data show that schools can change their snack food environments, more effort is needed to further earlier progress. Even in those states that have had success reducing access to less-healthy snack foods over time, there is still a wide array of low-nutrient, high-calorie options available to their students and few healthy alternatives. The data from the CDC Profiles indicate that the national school food environment is an uneven landscape—likely the result of inconsistent state and local policies. A national, science-based standard would assure sound nutritional guidelines upon which all students and their parents can rely.

[vi] The full HIA—*Health Impact Assessment: National Nutrition Standards for Snack and a la Carte Foods and Beverages Sold in Schools*—examined elementary, middle, and high schools. The full assessment can be found at pewhealth.org/reports-analysis/reports/health-impact-assessment-national-nutrition-standards-for-snack-and-a-la-carte-foods-and-beverages-sold-in-schools-85899400700.

Recommendations

Based on a comprehensive analysis of the data included in this report, findings from our earlier HIA, and related research, the Kids' Safe and Healthful Foods Project urges USDA to issue science-based nutrition standards for all foods and beverages served and sold in schools. The project makes the following recommendations.

Recommendation 1: USDA should establish nutrition standards for all snack foods sold regularly on school grounds outside of the school meal programs. For secondary schools, these standards should include:

- a requirement that schools sell healthier items from the Dietary Guidelines for Americans list of foods to encourage;
- age-appropriate calorie limits for items sold individually;
- a maximum total calorie limit on sugar and fats;
- incremental reductions in sodium over 10 years to achieve full alignment with the Dietary Guidelines for Americans; and
- restrictions on calories and serving size for all beverages.

Recommendation 2: USDA should adopt policies and practices that ensure effective implementation of the standards. At a minimum, USDA should:

- ensure that nutrition standards are kept up to date with future iterations of the Dietary Guidelines for Americans; and
- collaborate with states and nongovernmental organizations to monitor the implementation of the standards and share the results publicly.

Appendix 1: Methodology

In 2011, CDC released *School Health Profiles 2010: Characteristics of Health Programs Among Secondary Schools in Selected U.S. Sites.*[21] The information in the report was collected from surveys of principals and lead health education teachers on health policies and practices in secondary schools. This comprehensive data aggregation, known as School Health Profiles, provides data on the status of a range of factors that contribute to the health of the school environment, including nutrition education, physical education, and school environment health policies.

The information in the CDC Profiles can be used to assess the types of snack foods and beverages that are being sold to children via vending machines, school stores, and snack bars in secondary schools across the United States.

The Kids' Safe and Healthful Foods team analyzed the 2010 Profiles data that focused on one element of the school environment: the availability of snack foods and beverages sold during the school day.

This report highlights seven indicators used to assess school snack food environments. These indicators are grouped into two categories: the availability of "healthy," nutrient-rich, low-calorie snacks (fruits and non-fried vegetables); and the availability of "less-healthy," low-nutrient, high-calorie snack foods (full-fat baked goods, salty snacks, chocolate candy, other types of non-chocolate candy, and soda or non-juice fruit drinks) (see Table A-1). With the exception of Illinois, each state's sample size and response rate was sufficient to represent all public secondary schools in that state. These data illustrate the availability of various snack foods in schools from state to state, and provide a representative picture of the recent state of snack foods and beverages sold in secondary schools across the country.

The Profiles survey consistently asked about three indicators from 2002 to 2010: chocolate candy, other kinds of candy, and salty snacks. This report summarizes the change in availability of these snack food categories from 2002 to 2010.

TABLE A-1 Selected Indicators*

Availability of healthy snack food options	
1	Percentage of secondary schools that allowed students to purchase **fruits** (not fruit juice) from vending machines, school stores, canteens, or snack bars
2	Percentage of secondary schools that allowed students to purchase **non-fried vegetables** (not vegetable juice) from vending machines, school stores, canteens, or snack bars
Availability of healthy snack food options	
3	The percentage of secondary schools that allowed students to purchase **cookies, crackers, cakes, pastries, or other baked goods** from vending machines, school stores, canteens, or snack bars
4	The percentage of secondary schools that allowed students to purchase **salty snacks** from vending machines, school stores, canteens, or snack bars
5	The percentage of secondary schools that allowed students to purchase **chocolate candy** from vending machines, school stores, canteens, or snack bars
6	The percentage of secondary schools that allowed students to purchase **other kinds of candy** from vending machines, school stores, canteens, or snack bars
7	The percentage of secondary schools that allowed students to purchase **soda/fruit drinks** (not fruit juice) from vending machines, school stores, canteens, or snack bars

*Indicators were taken from the CDC School Health Profiles questionnaire. School principals were not provided with additional information or a definition of these terms.

The Profiles data are reported as a percentage of schools within each state that have a particular practice in place, along with the median and range across all states. For ease of interpretation of the analysis in this report, states have been ranked for each indicator (see Appendices 2 and 3).

Data Analysis and Limitations

The Profiles data, and thus this report, have a number of limitations. The data come from a self-reported survey by principals and, therefore, may be biased. In addition, respondents may have interpreted questions differently.

The Profiles data are specific to snack foods sold in school stores, snack bars, and vending machines, but a la carte offerings are not included. More than 90 percent of secondary schools provide a la carte options for students;[22] therefore, their lack of inclusion may underestimate the percentage of schools selling all types of snack foods. Data from a recent report,[23] which includes foods sold both in a la carte lines and through other snack food venues, indicate that almost 80 percent of high school students nationally have access to regular-fat and sugared snacks, as well as fruits and vegetables. While there are many differences between the methodologies of these studies, it is likely that the a la carte line serves as a major source of fruits and vegetables for students outside of the school meal, while other snacking venues (vending machines, snack bars, and school stores) covered in the present report do not.

Additionally, Profiles does not include purchasing data or students' actual consumption of these or other foods—it only evaluates what foods are offered for sale. Therefore, no final conclusions can be drawn regarding children's actual food intake.

Appendix 2

TABLE A-2 Percentage of secondary schools that sell fruits and non-fried vegetables

Higher percentage is favorable

Allowed students to purchase fruits (not fruit juice)					
Rank	**State**	**Percent**	**Rank**	**State**	**Percent**
1	New Hampshire	50.2	27	Montana	27.7
2	Michigan	46.3	28	Delaware	27.0
3	Vermont	42.9	29	North Carolina	26.8
4	California	41.7	30	Kansas	26.7
5	Pennsylvania	40.5	31	Colorado	26.5
6	Minnesota	39.9	32	Oklahoma	25.3
7	Nevada	39.1	33	Georgia	25.1
8	Florida	39.0	34	Nebraska	24.3
9	Utah	38.9	35	Arizona	23.3
10	New Jersey	38.6	36	Tennessee	21.8
10	New York	38.6	37	New Mexico	21.7
12	Washington	36.3	37	Oregon	21.7
13	Massachusetts	36.0	39	Wyoming	21.3
14	Texas	35.5	40	Mississippi	21.2
15	Ohio	34.1	41	District of Columbia	19.9
16	Indiana	33.2	42	South Dakota	17.9
17	South Carolina	32.4	43	North Dakota	17.8
18	Maine	31.7	44	Kentucky	16.3
19	Iowa	31.6	45	Arkansas	16.0
20	Maryland	31.3	46	Louisiana	11.9
21	Wisconsin	31.1	47	Alabama	9.1
22	Missouri	31.0	48	Alaska	8.7
23	Virginia	30.9	49	West Virginia	7.8
24	Rhode Island	30.4	50	Hawaii	2.8
25	Connecticut	28.3		**MEDIAN***	**28.2**
26	Idaho	28.0		**RANGE**	**2.8–50.2**

TABLE A-2

Percentage of secondary schools that sell fruits and non-fried vegetables (continued)

Higher percentage is favorable

Allowed students to purchase non-fried vegetables (not vegetable juice)					
Rank	**State**	**Percent**	**Rank**	**State**	**Percent**
1	Michigan	36.3	27	Colorado	16.7
2	Vermont	35.8	28	Tennessee	15.8
3	New Hampshire	33.5	29	Arizona	15.7
4	Pennsylvania	33.2	30	Georgia	15.5
5	California	33.0	31	Oregon	15.4
6	Florida	32.4	32	Kansas	15.3
6	Utah	32.4	33	Iowa	14.9
8	Texas	31.0	34	Oklahoma	14.7
9	Nevada	30.8	35	Nebraska	14.6
10	New York	30.7	36	District of Columbia	14.3
11	New Jersey	30.6	37	Idaho	13.6
12	Massachusetts	28.9	38	Wyoming	13.4
13	Maryland	27.0	39	Montana	11.7
14	Ohio	26.3	39	New Mexico	11.7
15	Virginia	25.2	41	Mississippi	11.1
16	Washington	25.1	42	North Dakota	10.9
17	Rhode Island	25.0	43	Kentucky	10.8
18	South Carolina	24.9	44	Arkansas	8.6
19	Indiana	23.3	45	Alaska	7.7
20	North Carolina	22.5	46	Alabama	6.6
21	Minnesota	22.4	47	Louisiana	6.2
22	Maine	22.2	48	South Dakota	5.5
23	Wisconsin	21.3	49	Hawaii	2.8
24	Missouri	21.0	50	West Virginia	2.3
25	Connecticut	20.2		**MEDIAN***	**18.9**
26	Delaware	17.5		**RANGE**	**2.3–36.3**

*Does not include Illinois

SOURCE: School Health Profiles, 2010

Appendix 3

TABLE A-3 Percentage of secondary schools that sell various snack foods[1]

Lower percentage is favorable

Cookies, crackers, cakes, pastries, or other baked goods

Rank	State	Percent	Rank	State	Percent	Rank	State	Percent
1	West Virginia	6.0	19	District of Columbia	25.7	36	Colorado	40.9
2	Alabama	6.1	20	South Dakota	26.1	37	Washington	41.1
3	Rhode Island	8.8	21	New Jersey	26.5	38	Missouri	41.8
4	Hawaii	9.5	22	Massachusetts	27.8	39	Ohio	42.1
5	Mississippi	11.6	23	Iowa	27.9	40	Indiana	42.3
6	Connecticut	14.4	24	Texas	29.2	41	Florida	42.4
7	Kentucky	17.1	25	Wyoming	32.1	42	Kansas	43.0
8	Delaware	17.3	26	New Hampshire	32.4	43	Idaho	44.4
8	Alaska	17.3	27	Nebraska	32.5	44	Montana	45.3
10	New Mexico	17.7	28	Vermont	33.4	45	South Carolina	45.9
11	California	18.7	29	New York	35.5	46	Maryland	46.8
12	Maine	19.7	30	Pennsylvania	35.6	47	Minnesota	47.0
13	Nevada	19.8	31	Wisconsin	35.8	48	Georgia	51.0
14	Oregon	20.4	32	Louisiana	36.5	49	Michigan	52.6
15	North Dakota	21.7	33	Virginia	38.5	50	Utah	69.7
16	Arkansas	22.5	33	North Carolina	38.5		**MEDIAN***	**32.3**
17	Arizona	24.9	35	Oklahoma	38.7		**RANGE**	**6.0–69.7**
18	Tennessee	25.2						

Salty snacks

Rank	State	Percent	Rank	State	Percent	Rank	State	Percent
1	West Virginia	8.3	19	Massachusetts	23.8	36	Colorado	38.8
2	Rhode Island	8.5	20	South Dakota	24.2	37	Kansas	38.9
3	Alabama	10.5	21	Iowa	24.4	38	Oklahoma	39.3
4	Mississippi	13.5	22	Arizona	25.8	39	North Carolina	39.5
5	Connecticut	14.5	23	Alaska	26.2	40	Washington	40.0
6	Nevada	15.3	24	New Hampshire	26.5	41	Ohio	41.8
7	Delaware	15.7	25	Vermont	26.7	42	Indiana	43.3
8	Hawaii	16.2	26	Texas	26.8	43	Minnesota	44.8
9	Oregon	17.2	27	New York	31.6	44	South Carolina	45.8
10	Maine	19.6	28	Wisconsin	31.7	45	Idaho	47.1
11	District of Columbia	19.9	29	Nebraska	32.2	46	Michigan	48.1
12	North Dakota	20.0	30	Wyoming	33.6	47	Louisiana	48.6
13	California	20.1	31	Pennsylvania	33.7	48	Maryland	49.7
14	Kentucky	20.4	31	Montana	33.7	49	Georgia	50.5
15	New Mexico	20.7	33	Virginia	34.5	50	Utah	68.5
16	Arkansas	22.6	34	Florida	38.6		**MEDIAN***	**26.8**
17	Tennessee	23.1	35	Missouri	38.7		**RANGE**	**8.3–68.5**
18	New Jersey	23.2						

TABLE A-3 Percentage of secondary schools that sell various snack foods[1] (continued)

Lower percentage is favorable

Chocolate candy

Rank	State	Percent	Rank	State	Percent	Rank	State	Percent
1	Rhode Island	0.0	19	Oregon	15.9	36	Colorado	29.8
2	West Virginia	1.7	20	District of Columbia	17.1	37	Wyoming	32.1
3	Connecticut	2.4	21	Arizona	17.3	38	Missouri	33.2
4	Alabama	3.3	22	Iowa	17.5	39	Nebraska	35.1
5	Mississippi	4.3	23	Texas	18.9	40	Michigan	35.4
6	California	4.6	24	Kentucky	19.0	41	Montana	36.8
7	Maine	4.7	25	Pennsylvania	19.3	42	Indiana	37.5
8	New Hampshire	6.8	26	Alaska	20.4	43	South Carolina	37.7
9	Hawaii	7.4	27	Florida	21.4	44	Minnesota	39.1
10	New Jersey	7.5	27	North Dakota	21.4	45	Kansas	43.1
11	Massachusetts	8.3	29	Tennessee	21.7	46	Oklahoma	43.9
11	Nevada	8.3	30	Wisconsin	22.7	47	Georgia	44.1
13	New York	10.5	31	Virginia	24.9	48	Louisiana	45.1
14	Delaware	10.9	32	Washington	26.5	49	Idaho	46.3
15	Vermont	11.0	33	North Carolina	27.3	50	Utah	75.2
16	New Mexico	14.2	34	Ohio	28.3		**MEDIAN***	**19.9**
17	Arkansas	15.3	35	Maryland	29.7		**RANGE**	**0.0–75.2**
18	South Dakota	15.4						

Other kinds of candy

Rank	State	Percent	Rank	State	Percent	Rank	State	Percent
1	Rhode Island	2.0	19	Texas	21.9	36	Maryland	34.5
2	Connecticut	3.6	20	Iowa	22.2	37	Washington	35.6
3	West Virginia	5.2	21	Oregon	22.4	38	Missouri	37.5
4	Maine	7.6	22	District of Columbia	22.8	39	Nebraska	39.1
5	Alabama	9.0	23	Pennsylvania	23.0	40	Michigan	40.7
6	California	10.1	24	Alaska	23.9	41	Indiana	41.0
7	New Hampshire	11.2	25	North Dakota	24.5	42	Montana	41.1
7	New Jersey	11.2	26	Tennessee	25.2	43	Kansas	44.6
9	Massachusetts	11.7	27	Kentucky	26.4	44	Minnesota	45.0
10	Hawaii	12.3	28	Nevada	27.7	45	Idaho	47.8
11	Mississippi	13.2	29	Wisconsin	27.9	46	Oklahoma	48.6
12	Vermont	14.1	30	Florida	30.0	47	South Carolina	50.3
13	New York	15.5	31	Ohio	30.4	48	Georgia	51.8
14	Delaware	15.7	32	North Carolina	30.5	49	Louisiana	65.8
15	Arkansas	17.0	33	Wyoming	32.3	50	Utah	74.0
16	South Dakota	17.9	34	Colorado	32.5		**MEDIAN****	**24.9**
17	Arizona	20.6	35	Virginia	33.4		**RANGE**	**2.0–74.0**
18	New Mexico	21.2						

TABLE A-3 Percentage of secondary schools that sell various snack foods[1] (continued)

Lower percentage is favorable

Soda pop or fruit drinks								
Rank	**State**	**Percent**	**Rank**	**State**	**Percent**	**Rank**	**State**	**Percent**
1	West Virginia	2.9	18	District of Columbia	22.8	36	Iowa	37.9
2	Connecticut	3.1	20	Oregon	22.9	36	Washington	37.9
3	Rhode Island	4.2	21	Colorado	23.4	38	South Dakota	40.1
4	Hawaii	8.8	22	Pennsylvania	24.1	39	South Carolina	40.5
5	Maine	10.9	23	New York	24.4	40	Minnesota	41.5
6	California	11.0	24	Alaska	25.9	41	Louisiana	41.7
7	Nevada	11.5	25	Wisconsin	28.0	42	Georgia	42.5
8	Delaware	14.1	26	Ohio	29.8	43	Montana	43.1
9	New Jersey	15.5	27	Arkansas	30.4	44	Missouri	43.8
10	Massachusetts	15.6	28	North Carolina	33.2	45	Oklahoma	47.2
11	New Mexico	16.0	29	Maryland	33.3	46	Indiana	47.4
12	Mississippi	16.6	30	North Dakota	33.4	47	Nebraska	48.7
13	Vermont	18.4	31	Kentucky	34.3	48	Idaho	49.7
14	New Hampshire	19.2	32	Wyoming	34.8	49	Kansas	50.3
15	Texas	20.9	33	Virginia	37.1	50	Utah	54.3
16	Alabama	21.1	34	Florida	37.4		**MEDIAN***	**28.9**
17	Tennessee	22.0	35	Michigan	37.5		**RANGE**	**2.9–54.3**
18	Arizona	22.8						

[1]Baked goods, salty snacks, chocolate candy, other candy, and soda/fruit drinks
*Does not include Illinois

SOURCE: School Health Profiles, 2010

Appendix 4

TABLE A-4 Percentage of secondary schools that sold chocolate candy

State	2002	2004	2006	2008	2010	State	2002	2004	2006	2008	2010
Alabama	68.4	*	32.3	5.2	3.3	Montana	56.9	53.3	52.2	36.2	36.8
Alaska	53.0	45.6	41.2	19.7	20.4	Nebraska	47.7	52.0	44.9	35.2	35.1
Arizona	56.0	46.4	32.8	17.6	17.3	Nevada	*	*	*	8.4	8.3
Arkansas	65.9	65.3	23.5	21.1	15.3	New Hampshire	46.8	31.5	22.2	8.6	6.8
California	*	*	*	2.5	4.6	New Jersey	41.1	*	*	8.3	7.5
Colorado	*	*	*	48.8	29.8	New Mexico	71.2	*	*	*	14.2
Connecticut	35.1	31.0	21.2	5.1	2.4	New York	41.8	37.4	*	17.5	10.5
Delaware	38.9	28.7	34.3	12.0	10.9	North Carolina	46.8	48.5	35.0	28.9	27.3
District of Columbia	*	20.8	18.3	20.9	17.1	North Dakota	47.1	47.4	45.7	25.5	21.4
Florida	*	*	28.9	21.4	21.4	Ohio	*	*	*	30.8	28.3
Georgia	59.4	*	53.9	*	44.1	Oklahoma	81.1	82.2	*	46.4	43.9
Hawaii	24.8	*	12.6	5.6	7.4	Oregon	*	62.1	49.9	30.1	15.9
Idaho	72.7	67.1	65.5	51.1	46.3	Pennsylvania	*	50.3	39.0	16.9	19.3
Illinois	45.9	*	43.2	32.4	*	Rhode Island	*	*	26.4	7.0	0.0
Indiana	*	*	*	46.3	37.5	South Carolina	*	68.2	56.4	40.0	37.7
Iowa	62.7	59.7	46.6	25.2	17.5	South Dakota	*	*	28.3	18.0	15.4
Kansas	*	*	62.2	45.3	43.1	Tennessee	73.6	66.4	58.4	21.8	21.7
Kentucky	74.0	*	*	13.7	19.0	Texas	*	*	46.9	28.1	18.9
Louisiana	*	*	*	*	45.1	Utah	90.6	88.7	82.9	75.0	75.2
Maine	46.6	36.7	8.4	3.8	4.7	Vermont	19.1	*	13.4	12.2	11.0
Maryland	*	*	*	28.5	29.7	Virginia	55.4	*	47.2	28.7	24.9
Massachusetts	35.5	30.1	18.2	10.0	8.3	Washington	*	71.6	39.4	31.4	26.5
Michigan	63.6	66.5	58.6	36.9	35.4	West Virginia	*	*	10.1	7.2	1.7
Minnesota	76.5	71.6	*	35.0	39.1	Wisconsin	56.5	51.1	*	26.1	22.7
Mississippi	*	*	71.0	13.5	4.3	Wyoming	*	*	*	31.4	32.1
Missouri	62.6	61.8	50.8	31.3	33.2	**MEDIAN**	**56.0**	**52.0**	**40.3**	**23.5**	**19.9**

*Not reported

SOURCE: School Health Profiles, 2002–2010

Appendix 5

TABLE A-5 Percentage of secondary schools that sold "other kinds of candy"

State	2002	2004	2006	2008	2010	State	2002	2004	2006	2008	2010
Alabama	73.6	*	37.4	14.8	9.0	Montana	59.5	54.9	55.2	38.4	41.1
Alaska	54.3	45.9	42.3	21.5	23.9	Nebraska	48.9	53.1	46.1	41.0	39.1
Arizona	59.2	47.6	36.2	20.7	20.6	Nevada	*	*	*	16.3	27.7
Arkansas	67.1	69.0	26.3	24.1	17.0	New Hampshire	49.7	36.3	24.5	9.6	11.2
California	*	*	*	8.9	10.1	New Jersey	44.3	*	*	9.9	11.2
Colorado	*	*	*	50.9	32.5	New Mexico	74.2	*	*	*	21.2
Connecticut	38.6	33.2	25.8	7.8	3.6	New York	46.6	39.0	*	20.3	15.5
Delaware	44.7	32.1	37.2	17.3	15.7	North Carolina	52.1	53.1	40.3	34.1	30.5
District of Columbia	*	29.8	22.3	14.0	22.8	North Dakota	49.3	48.4	44.1	24.7	24.5
Florida	*	*	32.9	28.5	30.0	Ohio	*	*	*	32.8	30.4
Georgia	58.2	*	56.9	*	51.8	Oklahoma	83.2	83.6	*	47.6	48.6
Hawaii	25.3	*	14.2	7.9	12.3	Oregon	*	67.9	55.1	36.2	22.4
Idaho	72.6	68.1	67.4	56.6	47.8	Pennsylvania	*	57.1	43.0	23.2	23.0
Illinois	47.2	*	46.5	35.2	*	Rhode Island	*	*	28.8	12.1	2.0
Indiana	*	*	*	50.7	41.0	South Carolina	*	70.4	66.0	47.4	50.3
Iowa	63.3	60.5	54.4	29.2	22.2	South Dakota	*	*	29.7	20.9	17.9
Kansas	*	*	63.0	49.4	44.6	Tennessee	75.3	70.3	61.9	23.8	25.2
Kentucky	76.1	*	*	19.6	26.4	Texas	*	*	39.9	30.1	21.9
Louisiana	*	*	*	*	65.8	Utah	90.1	89.7	82.6	77.0	74.0
Maine	51.8	41.4	11.2	5.5	7.6	Vermont	23.2	*	15.7	14.2	14.1
Maryland	*	*	*	35.9	34.5	Virginia	58.1	*	51.5	36.5	33.4
Massachusetts	40.6	34.5	23.8	15.1	11.7	Washington	*	74.7	46.5	35.7	35.6
Michigan	66.2	70.0	64.2	42.4	40.7	West Virginia	*	*	18.2	8.8	5.2
Minnesota	77.5	73.4	*	42.4	45.0	Wisconsin	61.0	55.2	*	30.9	27.9
Mississippi	*	*	72.0	22.1	13.2	Wyoming	*	*	*	34.8	32.3
Missouri	62.4	64.1	54.9	36.4	37.5	**MEDIAN**	**58.2**	**55.2**	**42.7**	**26.6**	**24.9**

*Not reported

SOURCE: School Health Profiles, 2002–2010

Appendix 6

TABLE A-6 Percentage of secondary schools that sold salty snacks[1]

State	2002	2004	2006	2008	2010	State	2002	2004	2006	2008	2010
Alabama	84.6	*	45.4	16.0	10.5	Montana	52.7	47.4	49.9	35.4	33.7
Alaska	52.7	48.6	44.0	26.2	26.2	Nebraska	46.7	51.4	46.4	38.5	32.2
Arizona	66.3	55.1	40.0	25.4	25.8	Nevada	*	*	*	16.6	15.3
Arkansas	69.4	69.6	26.2	24.8	22.6	New Hampshire	71.0	62.8	44.6	23.6	26.5
California	*	*	*	17.0	20.1	New Jersey	62.7	*	*	22.9	23.2
Colorado	*	*	*	51.0	38.8	New Mexico	71.8	*	*	*	20.7
Connecticut	67.7	58.9	41.2	17.3	14.5	New York	64.0	63.3	*	35.3	31.6
Delaware	56.3	60.0	44.7	32.0	15.7	North Carolina	72.0	72.3	50.0	44.5	39.5
District of Columbia	*	32.7	18.3	27.2	19.9	North Dakota	41.2	43.5	38.2	26.3	20.0
Florida	*	*	38.1	37.3	38.6	Ohio	*	*	*	49.0	41.8
Georgia	63.3	*	59.4	*	50.5	Oklahoma	78.6	81.7	*	42.7	39.3
Hawaii	24.8	*	11.0	9.0	16.2	Oregon	*	74.6	55.6	37.4	17.2
Idaho	68.0	68.5	63.7	47.6	47.1	Pennsylvania	*	69.9	46.9	26.6	33.7
Illinois	56.5	*	52.2	38.4	*	Rhode Island	*	*	49.8	18.3	8.5
Indiana	*	*	*	48.8	43.3	South Carolina	*	80.1	69.9	43.4	45.8
Iowa	66.4	63.7	48.3	34.3	24.4	South Dakota	*	*	27.5	22.3	24.2
Kansas	*	*	60.4	41.8	38.9	Tennessee	74.7	72.2	62.5	23.0	23.1
Kentucky	76.9	*	*	18.3	20.4	Texas	*	*	47.9	36.5	26.8
Louisiana	*	*	*	*	48.6	Utah	88.2	85.0	75.9	71.9	68.5
Maine	66.2	56.3	23.0	16.8	19.6	Vermont	51.3	*	36.5	37.0	26.7
Maryland	*	*	*	47.5	49.7	Virginia	69.4	*	60.0	40.4	34.5
Massachusetts	68.1	63.0	38.7	28.8	23.8	Washington	*	80.3	39.6	37.5	40.0
Michigan	73.8	79.4	68.2	49.1	48.1	West Virginia	*	*	28.3	23.2	8.3
Minnesota	80.7	76.3	*	41.7	44.8	Wisconsin	63.7	60.9	*	33.8	31.7
Mississippi	*	*	75.0	16.5	13.5	Wyoming	*	*	*	36.2	33.6
Missouri	69.1	68.4	60.9	38.9	38.7	**MEDIAN**	**67.7**	**63.7**	**46.7**	**34.8**	**26.8**

[1]Foods that are not low in fat, such as regular potato chips.
*Not reported.

SOURCE: School Health Profiles, 2002–2010

Appendix 7

TABLE A-7 Percentage of secondary schools that allowed students to purchase fruits (not fruit juice)

State	2008	2010	State	2008	2010
Alabama	21.2	9.1	Montana	21.0	27.7
Alaska	19.7	8.7	Nebraska	20.6	24.3
Arizona	26.2	23.3	Nevada	38.7	39.1
Arkansas	15.6	16.0	New Hampshire	48.7	50.2
California	41.6	41.7	New Jersey	39.0	38.6
Colorado	34.5	26.5	New Mexico	*	21.7
Connecticut	32.5	28.3	New York	49.6	38.6
Delaware	32.8	27.0	North Carolina	34.2	26.8
District of Columbia	7.0	19.9	North Dakota	14.6	17.8
Florida	39.0	39.0	Ohio	45.8	34.1
Georgia	*	25.1	Oklahoma	24.0	25.3
Hawaii	8.8	2.8	Oregon	29.6	21.7
Idaho	22.8	28.0	Pennsylvania	39.8	40.5
Illinois	34.5	*	Rhode Island	40.5	30.4
Indiana	41.2	33.2	South Carolina	31.0	32.4
Iowa	36.4	31.6	South Dakota	23.0	17.9
Kansas	26.7	26.7	Tennessee	23.0	21.8
Kentucky	16.0	16.3	Texas	37.6	35.5
Louisiana	*	11.9	Utah	37.0	38.9
Maine	32.1	31.7	Vermont	50.4	42.9
Maryland	34.5	31.3	Virginia	34.5	30.9
Massachusetts	37.4	36.0	Washington	28.8	36.3
Michigan	52.5	46.3	West Virginia	8.3	7.8
Minnesota	32.3	39.9	Wisconsin	39.2	31.1
Mississippi	14.6	21.2	Wyoming	19.5	21.3
Missouri	33.9	31.0	**MEDIAN**	**32.8**	**28.3**

SOURCE: School Health Profiles, 2008 and 2010

Appendix 8

TABLE A-8 Percentage of secondary schools that allowed students to purchase non-fried vegetables (not vegetable juice)

State	2008	2010	State	2008	2010
Alabama	14.7	6.6	Montana	12.4	11.7
Alaska	13.2	7.7	Nebraska	12.3	14.6
Arizona	20.0	15.7	Nevada	21.4	30.8
Arkansas	10.4	8.6	New Hampshire	38.0	33.5
California	32.4	33.0	New Jersey	33.0	30.6
Colorado	28.0	16.7	New Mexico	*	11.7
Connecticut	29.3	20.2	New York	36.4	30.7
Delaware	21.0	17.5	North Carolina	26.5	22.5
District of Columbia	3.5	14.3	North Dakota	5.9	10.9
Florida	32.0	32.4	Ohio	38.0	26.3
Georgia	*	15.5	Oklahoma	16.1	14.7
Hawaii	7.7	2.8	Oregon	16.8	15.4
Idaho	15.7	13.6	Pennsylvania	31.5	33.2
Illinois	28.9	*	Rhode Island	32.1	25.0
Indiana	32.4	23.3	South Carolina	22.7	24.9
Iowa	19.5	14.9	South Dakota	9.3	5.5
Kansas	15.7	15.3	Tennessee	16.4	15.8
Kentucky	10.6	10.8	Texas	30.4	31.0
Louisiana	*	6.2	Utah	27.9	32.4
Maine	22.3	22.2	Vermont	36.6	35.8
Maryland	29.2	27.0	Virginia	29.1	25.2
Massachusetts	30.2	28.9	Washington	19.4	25.1
Michigan	40.2	36.3	West Virginia	5.1	2.3
Minnesota	19.4	22.4	Wisconsin	26.9	21.3
Mississippi	12.2	11.1	Wyoming	13.0	13.4
Missouri	25.0	21.0	**MEDIAN**	**22.3**	**20.2**

SOURCE: School Health Profiles, 2008 and 2010

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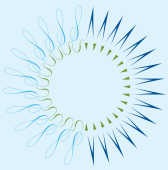

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