RESEARCH TO ACTION

Center for Weight & Health
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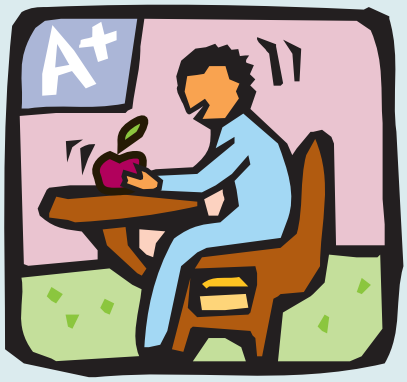


Dollars and Sense:
The Financial Impact of Selling Healthier School Foods

Schools and legislators respond to the child obesity epidemic

Enormous attention, effort, and resources are being paid to the obesity epidemic and the related health consequences. The nation's children in particular are facing a health crisis — the number of overweight and obese children is rising at a rapid rate. In response to accelerating childhood obesity rates, states and school districts have developed, passed and implemented policies to restrict sales of certain foods or beverages and to set nutrition standards for "competitive foods" — foods sold on school campuses outside of school meal programs. Likewise, legislative proposals have been considered at the state and federal levels to address the presence of unhealthy foods in schools.

In California, the state legislature responded to the increasing rates of childhood obesity by passing The Pupil Nutrition, Health and Achievement Act of 2001, commonly known as SB 19, which attempted to regulate the sale of competitive food and beverage items sold to elementary and middle school students on campus. SB19 imposed nutrition standards (summarized in Table 1) that specifically limited the fat and sugar content of these snack foods and beverages. Although SB 19 was signed into law it never went into effect due to a funding contingency. The SB 19 nutrition standards however were modified slightly and incorporated into subsequent legislation (SB 12 and 965) which were signed into law and apply to all grade levels (K-12) starting in July of 2007, with the exception of the beverage standards which will be phased in over 2 years at high schools.

Prepared for the California Endowment in collaboration with Samuels & Associates

The California Endowment

Samuels & Associates

The challenge of switching to healthier options

Prior to SB 19 schools had become progressively more dependent on revenues from the sale of high calorie, nutrient poor foods and beverages to support various student programs and activities as well as provide much needed revenue to school food service departments that struggle to keep their operations in the black. Faced with competition from venues such as vending machines, student stores and students going off campus to buy foods and beverages during the school day, many food service departments have felt it necessary to sell popular, but nutritionally-poor, a la carte items in addition to complete meals.

Many schools expressed concern that sale of SB-19 compliant foods and beverages would be less profitable and thereby negatively impact school revenues, however, schools did not have systems in place that accurately assessed this financial impact. Many schools had little idea how much they were making from competitive food and beverage sales, and rarely were revenues adjusted for student attendance, therefore making it difficult to distinguish the impact of the regulations from the impact of fluctuations in student enrollment.

Table 1: ***Summary of SB 19 Nutrition Standards[1] for competitive foods and beverages[2] sold on pilot (LEAF and SB19 study) school campuses from ½ hour before the start until ½ hour after the end of the school day***

Allowable food items:

a. *Not more than 35% of total calories from fat (excluding nuts and seeds).*
b. *Not more than 10% of total calories from saturated fat.*
c. *Not more than 35% of total weight from sugar (excluding fruits and vegetables).*
d. *Portion sizes not larger than the portions of those foods served as part of the federal school meal program.*
e. *Fruit and non-fried vegetables will be offered for sale at any location where food is sold.*

Allowable beverages:

a. *Drinking water.*
b. *Milk including, but not limited to, chocolate milk, soy milk, rice milk, and other similar dairy or non-dairy milk.*
c. *Fruit-based drinks with not less than 50% fruit juice and no added sweeteners.*
d. *Electrolyte replacement beverages that do not contain more than 42 grams of added sweetener per 20 ounce serving.*
e. *Portion sizes of fruit juices and juice-based drinks not larger than 12 ounces and not larger than 20 ounces for electrolyte replacement beverages.*

[1] Had the legislation gone into effect the competitive food standards would have applied to all elementary schools with the exception of items d and e. The allowable beverages at elementary schools would have included items a–c, whereas at middle schools the only restriction would have been that no carbonated beverages would be allowed until after the end of the last lunch period.

[2] These nutrition standards only apply to individual foods and beverages sold to students in various venues on campus including vending machines, student stores, snack bars, carts, and in the cafeteria. The standards do not apply to the complete meals provided to students as part of the federal meal program that is regulated at the Federal level.

Two pilot studies evaluate the financial impact of switching to healthier options

The two pilot studies presented in this brief were conducted to assess the feasibility and financial impact of implementing the SB19 standards and allowed the researchers to develop a system for schools to monitor the financial impact of making changes to competitive foods and beverages.

One study, conducted by the UC Berkeley Center for Weight and Health with funding from the California Department of Education (CDE), evaluated the Linking Education, Activity and Food (LEAF) program which pilot tested SB 19 in 5 *high* schools and 11 *middle* schools.

Another study funded by NIH (National Institutes of Health) and the California Endowment and jointly conducted by WestEd, UCLA, the UC Berkeley Center for Weight and Health, and Samuels and Associates, examined the impact of SB 19 in *elementary* and *middle* schools. All of the schools in addition to implementing the nutrition standards also adopted and implemented, to varying degrees, an array of other policies to support healthy eating and increased physical activity among the students.

As is the case for most elementary schools, the elementary schools that participated in these studies sold little or no competitive foods and beverages (foods and beverages sold on school campuses outside of the school meal program) and were less financially dependent on food sales as compared to secondary schools. Therefore only data from the 15 middle schools and 5 high schools that participated in the 2 studies are included in this report. Furthermore only findings from food service sales are presented. Although other venues sold competitive foods and beverages, complete financial data was not always available from these sources. Furthermore the food service department tended to be one of the larger providers of competitive foods and beverages especially at the middle school level.

Most of the schools were relatively low-income schools with a moderate to high percentage of students eligible for free and reduced priced meals. Therefore the results may not apply to food service departments at higher income schools that tend to be more dependent on a la carte sales.

The findings presented here reflect the experiences of 15 middle schools and 5 high schools in California.

Revenues Increased

After implementation of the SB 19 nutrition standards the following trends were observed for school food service departments:

Figure 1: Percent of schools experiencing changes in total* food service department revenues per student** per year

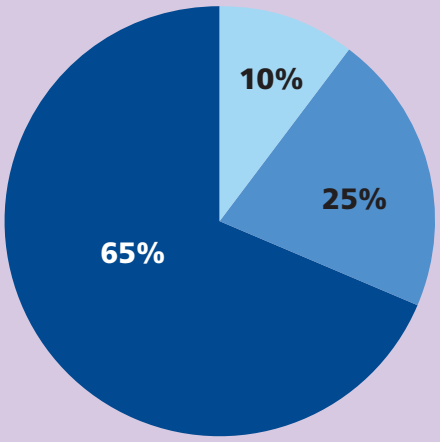
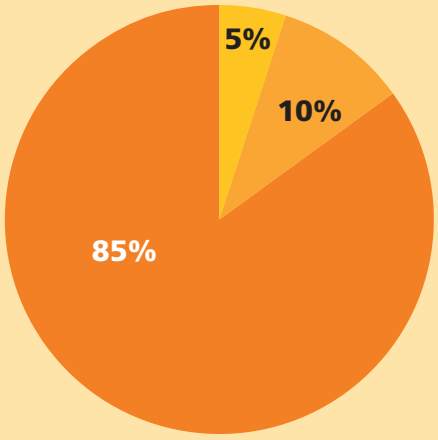


Figure 2: Percent of schools experiencing changes in competitive food and beverage sales per student per year



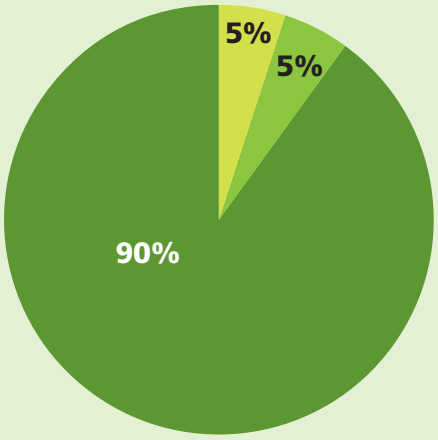
- **Total revenues increased at the majority of schools because increases in meal revenues more than compensated for any losses in competitive food and beverage sales**
  - 13 of the 20 schools (65%) experienced increases of greater than 5% in overall revenues (meal and competitive sales combined). This increase in revenues ranged from $20 to $143 per student per year.
  - Only 2 schools (10%) experienced declines in overall revenues of greater than 5%. These reductions in revenues ranged from $12 to $27 per student per year

- **Seventeen of the 20 schools (85%) experienced decreases of greater than 5% in revenues from competitive sales.**
  - This decrease in revenues ranged from $1.50 to $90 per student per year

This decrease in competitive food sales signals a shift in student purchasing behavior away from individual snack foods and beverages toward complete meals appears to be driven by the reduced availability, variety and appeal of the competitive foods and beverages coupled with an increase in the appeal of the meals and the cafeteria environment. Those schools that completely eliminated the sale of competitive foods by the food service department tended to see the greatest increases in meal participation.

* Total gross revenues refer to income from both competitive and meal sales.
** All revenues are adjusted for the number of attending students in order to account for fluctuations in student population

Figure 3: Percent of schools experiencing changes in meal revenues* per student per year



- **Eighteen of the 20 (90%) schools experienced an increase of greater then 5% in revenues from meal sales and reimbursements**
  - This increase in revenues ranged from $20 to $172 per student per year.

It appears that the implementation of nutrition standards for competitive foods and beverages benefited school food service departments financially because, although the students purchased less competitive foods and beverages, they purchased more meals instead. This trend likely benefited students by decreasing their consumption of snack foods and sweetened beverages in favor of more balanced meals.

- **16 of the 20 schools (80%) experienced increases in the number of lunches served and 15 of the 19 schools that offer breakfast (79%) experienced increases in breakfasts served.**

This suggests that nutrition standards for competitive foods (foods sold on school campuses outside of school meal programs) can result in increases in both breakfast and lunch program participation. The increase in breakfast participation is encouraging given that consumption of breakfast by adolescents has decreased substantially in recent decades and breakfast skipping has been associated with poorer behavior, poorer academic performance, and obesity.

When students buy more meals and fewer snack foods, food service revenues increase.

It is important to keep in mind however that despite the benefits of increased meal participation, schools still struggled to serve healthy meals that appeal to students at the current meal reimbursement rates. The increased reliance on meal sales and reduced reliance on competitive sales helped, but it did not resolve school food service financial challenges. Schools with fewer students eligible for subsidized meals tended to reap less financial gain from implementing the nutrition standards due to lower meal participation rates, minimal reimbursements for full priced meals and competition from outside vendors.

* Includes revenues from cash sales and reimbursements

Recipe for Financial Success

* ***Improvements to the school meal program:*** A number of changes to the school meal program were made to enhance its appeal to students. These changes likely contributed to higher participation in the meal program which resulted in increased revenue.
    * ***Updating the meal program menu:*** Most of the schools participating in these studies revamped their menus to promote the meal program. The most common changes were the addition of salad and/or fruit bars and a switch from standard cafeteria style service to a food court set up with international themes.
    * ***Enhancing serving and eating areas:*** Almost all participating districts upgraded their cafeterias by making simple improvements such as replacing long tables and benches with smaller round tables and chairs, painting the walls, adding murals and other decorations and redesigning menu boards in a manner that created an inviting ambience. Outdoor eating areas were also sometimes improved or expanded, and adequate shading provided when needed. In many cases measures were taken to decrease meal lines and increase the time available for eating. These measures included adding additional payment stations, offering "grab and go" packaged meals and serving meals from carts located throughout the campus.
    * ***Improving kitchen facilities:*** In response to student demand for more "fresh" food and more "variety", some of the participating schools remodeled their kitchen facilities to better accommodate the preparation of meals on-site and the storage of larger volumes of fresh produce.

* ***Direct involvement of students in changing the food environment***

  Students at the participating schools were involved to varying degrees in policy development, implementation, nutrition education and promotion. Schools that involved students in selecting and promoting healthy options tended to see greater sales of healthy items.

* ***Strong school site buy-in***

  Many different stakeholders are affected by the SB 19 regulations. Resistance, especially from those that could be affected by reduced revenues, was not uncommon. This resistance was best overcome by open communication, collegial relationships, a willingness to compromise, and making step by step changes. Buy-in from district and school administration (i.e. superintendents and principals) was essential and the role of the food service directors, supervisors and staff was central. The more successful districts obtained support from and maintained consistent communication with the key stakeholder groups.

* ***Marginalizing a la carte foods***

  Schools that eliminated the foods sold competitively by food service tended to see greater revenue increases suggesting that reduced availability of other options was critical to increase participation in the meal program.

The most common cafeteria improvements were the addition of salad bars, a switch to food court style service with international themes, and simple upgrades to improve cafeteria ambience.

Challenges

Factors mentioned above were crucial to successfully transitioning from reliance on revenue from competitive foods (foods sold on school campuses outside of school meal programs) to reliance on meal revenue. But these changes were not easy to make. School districts participating in the pilot studies identified the following challenges to implementing SB 19 food standards:

- *Open campuses* place the food service in direct competition with off-campus food and beverage vendors such as coffee shops, fast food restaurants and convenience stores. Open campuses are most common at the high school level;
- *Short meal periods* make it hard to serve the student population and leave enough time to eat. Students then rely on more readily available vending and snack bar items.
- *Insufficient number of food service staff and payment stations* make it difficult to quickly and efficiently serve the student population during the lunch period. The resulting long lines deter students from buying the school meal;
- *Perishability and increased labor associated with the provision of freshly prepared foods* challenge food service to break even given the limited government reimbursement funds that schools receive to subsidize free and reduced price meals.
- *Beverage contracts* with vending companies may offer financial incentives to schools for selling and advertising the less healthy highly sweetened beverages on campus;
- *Reliance on the sale of high-calorie, nutrient poor foods to support student programs and activities*: These food and beverage sales are often the main source of funding for student clubs, sports teams and student groups. These sales from groups other than food service compete with food service and can decrease food service revenues.

To successfully implement nutrition standards, the challenges listed here must be identified and addressed.

- *Inadequate personnel, technology and incentives for monitoring compliance with SB 19* nutrition standards make it difficult to ensure that all venues on campus continue to adhere to the nutrition standards.
- *Insufficient funding* for cafeteria improvements, education and training of staff, and purchasing of healthier food and beverage options. Study schools were able to make these types of changes because they were provided with additional funds as part of participating in the study.
- *Schools that have relatively few students eligible for subsidized meals* face unique challenges in reducing their reliance on a la carte sales. Not only is it more difficult to entice full price students to pay for the school meal, schools receive lower federal and no state reimbursement for meals paid for at full price. Furthermore raising meal prices can result in students seeking out cheaper and less healthful fare off-campus. Closed campus status may therefore be a particularly important issue for higher income schools.

Conclusions & Recommendations

The findings described in this brief indicate that nutrition standards for school foods and beverages not only improve the quality of the individual foods and beverages sold to students but also result in a shift in student purchases away from snack foods toward complete meals. Nutrition standards have a double benefit: not only do students eat healthier foods but school food service can actually increase their revenues. These findings suggest that:

- Support should be provided to schools so that they can accurately monitor the financial impact of implementing nutrition standards and related efforts to improve the school nutrition environment. A financial analysis should include:
  - An assessment of revenues over an entire school year to account for monthly/seasonal fluctuations and temporary reductions in cash flow due to an increased reliance on meal reimbursements that are billed quarterly.
  - Revenues should be assessed on a per student basis to account for changes in student population during the school year.
  - Changes in expenditures should also be monitored in order to accurately assess profitability.
- Schools should be encouraged to reduce or eliminate competitive foods (foods sold on school campuses outside of school meal program) and concentrate their efforts on the improvement and promotion of the meal program.
- Assistance and resources should be provided to school food service to support the preparation and promotion of fresh, appealing, and nutritious meals.
- Campus entities, other than school food service, should develop fundraising strategies that do not involve the sale of foods and beverages so as to avoid competition with the meal program and to encourage students to eat the more nutritious school meal.
- Schools that choose to sell competitive foods and beverages should:
  - offer only compliant items that not only meet the letter but also the intent of the standards;
  - involve students in selecting and promoting these items;
  - develop and implement a system for monitoring compliance.

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