

**Ahead of the Curve: Adopting and Implementing School District A La Carte Food
and Beverage Policies**

**Capistrano Unified School District:
Case Study Report**

October 2005

Prepared by:

Liz Schwarte, MPH
Maria Boyle, MS, RD
Lisa Craypo, MPH, RD
Sarah Stone-Francisco, MPH
Sarah Samuels, DrPH

Samuels & Associates
663 13th Street, 3rd Floor
Oakland, CA 94612
(510) 271-6799
Fax (510) 271-6791

TABLE OF CONTENTS

I. Introduction	2
II. Capistrano Unified School District: Policy Analysis	2
III. Stakeholder Survey	3
IV. Environmental Assessment	7
A. Methods	8
B. School Demographics	9
C. Beverage Findings	10
D. Food Findings	14
V. Discussion	19
VI. Key Lessons Learned	19
VII. Epilogue	20
Appendix A	21

INDEX OF TABLES

Table 1 Ethnicity of students	9
Table 2 Student population and percentage of students eligible for free/reduced price meals	9
Table 3 Beverage vending machines inaccessible to students	10
Table 4 Number and frequency of beverages available in vending machines	11
Table 5 Variety and number of a la carte beverages-food services	12
Table 6 Number and percent of beverages adhering to district beverage standards-all venues	13
Table 7 Percent of beverages adhering to district beverage standards, by venue	13
Table 8 Number of a la carte items in each food category by venue (all schools)	14
Table 9 Average price of a la carte items in each food category by venue (all schools, all venues)	15
Table 10 Average nutrient profile of foods (all schools, all venues)	16
Table 11 Adherence of a la carte foods to district standards-all venues	17
Table 12 Adherence of a la carte foods to district standards-vending machines	18
Table 13 Adherence of a la carte foods to district standards-food services	18

Acknowledgments:

The Authors would like to thank the Robert Wood Johnson Foundation and The California Endowment for providing the funding to make the case study project possible. We also extend our sincere appreciation to the case study school districts for participating in this project.

I. Introduction

In order to provide a complete picture of the ground-breaking steps California is taking to restrict access to fast food, soda and other sweetened beverages on school campuses, Samuels & Associates conducted intensive case studies in six school districts in California that have passed a policy to restrict or ban the sale of soda and/or sweetened beverages and junk foods.

Samuels & Associates conducted a thorough search to identify the school districts in the State in which the School Board had passed a district-wide soda ban policy as of September 2003. By that date, six school districts had passed policies, and several more have adopted policies since that time. The districts identified included: Capistrano Unified School District, Hemet Unified School District, Los Angeles Unified School District, Oakland Unified School District, San Francisco Unified School District, and Eureka City Schools. Participating districts had approved and implemented, to some extent, district-wide policies.

The case studies utilized a multi-method approach to describe policy development and implementation in each of the study districts. The methods included:

- ❖ Policy Analysis
- ❖ Environmental Assessment
- ❖ Stakeholder Survey

Data was collected for the case studies at the school district and individual school level. Within each study district, three to seven schools were selected for participation in the environmental assessment. Only high schools and middle schools were selected because of the high prevalence of a la carte foods and beverages available to secondary school students.

One high school and two middle schools participated in the case study for Capistrano Unified School District (CUSD), which was conducted in Spring 2004. Schools were identified by district personnel based on a practice of revolving participation by schools in research efforts.

II. Capistrano Unified School District: Policy Analysis

As part of the district case studies, Samuels & Associates completed a policy analysis of each district's policy, designed to assess the following questions: what does the policy say, what beverages and/or foods are included, does the policy include specific definitions for restricted beverages (such as "sweetened beverages"), what changes will this policy make in the district, is the policy specific or ambiguous, does the policy include steps or an outline for implementation, and what is the potential of the policy to reduce junk food, soda and sweetened beverage consumption on school campuses.

The case studies provide an in-depth view of the process of passing and implementing these policies, as well as outline successful strategies for districts that may pass policies in the future. The analysis will also help to inform the implementation of current and future statewide policies.

Capistrano Unified School District – Board Action

Capistrano Unified School District was among the first districts in California to take action on restricting beverages and foods sold in campus vending machines. Capistrano's policy is not a formal policy or resolution but a Board "action" to authorize to advertise for bids for vending and beverage services district-wide. Two events contributed to the development of the Board Action: expiration of the district's beverage contract with Pepsi Bottling Company and action by the District Food and Nutrition Service coordinators. Food and Nutrition Services provided the District with information on the obesity epidemic and SB19 and encouraged the District to provide healthier beverages and foods in vending machines. The District was supportive. Food and Nutrition Services and Purchasing then presented their proposal to the Board, which unanimously adopted the Action.

The July 29, 2002, Capistrano Unified School District (CUSD) Board authorization to advertise for bids for vending and beverage services states:

"The current contract for Vending and Beverages Services will expire soon. This is an opportunity to restructure the vending services provided on CUSD campuses. In light of the national concern over obesity, childhood diabetes, and generalized concern for the health of our young, it is appropriate that our vending machine services be reviewed. The proposed bid will provide only drinks and snacks that have approved USDA nutritional values consistent with SB19 guidelines. There will be no carbonated beverages sold to students through vending machines on Capistrano Unified School District campuses. Additionally, a milk product will be made available in vending machines."

Bids were awarded to Coca Cola Bottling Co. of S. California and North County Vending. The award (September 9, 2002) states that the bids received included only drinks and snacks that have approved USDA nutritional values consistent with SB19 guidelines and reiterates that there will be no carbonated beverages sold to students through vending machines on CUSD campuses and that milk products will be available in vending machines.

The vending contract contained a renewal option for four years, renewable annually. On September 15, 2003, the Board authorized extension of these bids through September 10, 2004 under the same terms and conditions as the original agreement.

III. Stakeholder Survey

Background

As part of the case studies, Samuels & Associates conducted stakeholder interviews with district and school level officials at each school. Stakeholder interviews were designed to elicit information about the history and passage of the policy, as well as its implementation. The interviews attempted to address the following specific topic areas:

- ❖ Development and passage of the policy
- ❖ School community reaction to the policy
- ❖ Process of implementation
- ❖ Barriers to policy implementation
- ❖ Strategies to overcome obstacles
- ❖ Recommendations for policy development in other school districts

❖ Anticipated outcomes/health effects of the policy

Samuels & Associates conducted stakeholder surveys in Spring 2004 with key individuals associated with the Capistrano Unified School District (CUSD) at the school and district levels.

Stakeholder Survey Methods

Eight respondents were interviewed by either phone or in-person surveys. Stakeholders included school board members, principals, school food services administrators, and a parent. A survey questionnaire was developed to guide the interviews, which took approximately 30 minutes. Respondents were cooperative in answering the questions. Several district-level administrators were unavailable for interview. All responses were transcribed during the interview and compiled to identify common themes.

Stakeholder Survey Findings

Opinions About District Policy

Stakeholders overwhelmingly expressed positive feelings about the Board action.

- ❖ “I think it is a very valuable thing we are doing. First, it limits the intake of the sugary drinks to children for prescribed periods of time but it also teaches the kids that these are not a good choice of drinks.”
- ❖ “We think it’s a good thing. We want to support anything that adds to the nutrition and well-being of students. They’ll improve academically, which is an asset to the district.”
- ❖ “It’s an excellent first step but a baby step.”
- ❖ “It’s reasonable and prudent. There’s the cost of hidden calories. I don’t see any negatives.”

Only one stakeholder, while supportive, expressed reservations.

“I am of two minds. In some respect, I think we overlegislate. I know some parents don’t give their children money for snacks. We are facing an obesity crisis [however], so it’s better the kids don’t have to make the decision.”

Development and Passage of the Policy

Who Led the Effort to Develop and/or Pass the Policy:

Five of eight respondents stated that Food and Nutrition Services, the Board and the Administration led the effort to develop and/or pass the action. The other respondents were unsure who led the effort.

One Board Member described the process as follows:

“We’ve always had a cutting edge Food Services. They wrote the Board item and it responded to our interests. Things bubble up from Food Services and they are a good match with the Board’s vision. In 2002, the vending contract was about to expire and we’d been reading about obesity and diabetes. It was an opportunity to restructure and review vending for appropriateness.”

Building Support for the Policy:

Several stakeholders responded that support for the action did not need to be gained due to general consensus. Food and Nutrition Services staff presented nutrition and child health research to key people in the district and encountered openness and support.

Concerns about the Policy and Influence on the Policy:

Several stakeholders at the district and school levels stated that loss of revenue was a concern for some. One Board Member reported that “[o]ur district worked closely with vendors to make sure we had enough selection of good drinks to make sure they didn’t lose revenue.” Others responded that there were no major concerns or objections.

One stakeholder noted that the action was only controversial in the high schools:

“They [students] didn’t see the necessity. They felt they were old enough to make their own decisions. We also said we are not banning sodas but that it is hypocritical of us to teach good nutrition and then sell what’s not a part of a healthy diet.”

The concerns were not viewed by respondents as having an influence on the Board action.

Critical Elements that Enabled Passage of the Policy:

Several respondents said there was virtually no opposition or media attention to the adoption of the action. One of the stakeholders stated that media attention often “...leads to the negative. It may have been because we didn’t take the route of the whole policy change. We took the route of a board action for a new vendor.” Another stakeholder felt that the presentation of health research and data enabled the passage of the action.

What Hindered or Stalled the Passage:

Respondents either stated that nothing hindered or stalled the passage of the action or that they weren’t aware of anything that did.

School Community Reaction to the Policy

Respondents described the school community reaction, including that of parents, as supportive and positive. Some respondents expressed concerns about revenue loss. Others noted that students complained initially. Another respondent stated that most of the reaction/interest has come from other school districts.

Process of Implementation

Implementation and Monitoring Procedures:

Stakeholders were most likely to identify district level staff and school administrators as responsible for implementing and monitoring the action. Several stakeholders at the district and school levels stated that staff members “keep an eye on things” and “make sure things don’t appear”.

According to one stakeholder, “The carbonated beverages just wouldn’t make their way in. Coke wouldn’t dare. Coca Cola came in and went over with me what was changing. Coke did a lot of the in servicing and Food Services was always available.”

Elements of Policy Easier or More Difficult to Implement:

Respondents generally felt that there wasn’t one element of the action that was easier or more difficult to implement over another. One stakeholder explained that the junk foods had not yet been removed from vending machines.

“The beverages are easier. . . . The snacks are more difficult. . . . Our resolution is not in writing. It was linked to SB19. The focus for next year will probably be on the vending snacks. We are looking to see where SB677 goes. The major district objectives will have a nutrition and fitness emphasis. Do we want to develop a policy? Get more community groups involved?”

Other Programs That Augment Implementation:

Stakeholders identified the following programs at the school or district level that could augment the implementation of the action because of their focus on nutrition and healthy lifestyles:

- ❖ Health, Science, Fitness and Life Skills Classes
- ❖ School Gardens

One stakeholder referred to an upcoming parent education series that will focus on proper nutrition and exercise. Another noted that the school district will continue to promote physical activity through joint park and recreation area use agreements with cities and clubs.

Barriers to Policy Implementation

Stakeholders did not identify any significant barriers to implementing the action. One Board Member reported that there was an initial dip in revenue due to the removal of sweetened beverages, but that it “. . . wasn’t enough of an issue that we had to be concerned.”

Stakeholders generally described the financial impact for the schools and food services of replacing the beverages sold on campus as minimal.

Strategies to Overcome Barriers

Advice on Handling Financial Concerns:

Stakeholders offered the following advice on handling these financial concerns:

- ❖ “It means you do less or seek money other ways. The world doesn’t end. Be pragmatic. I have issues with the fundraising we do.”
- ❖ “It depends on what the money is being used for but you can create a district-wide committee to brainstorm solutions – a committee composed of people who know the students and the community.”

Resources Available for Implementation:

No resources were made available to cover potential revenue loss brought about by the action.

Effect on Meal Participation

Most stakeholders felt the action would not affect participation in the national school lunch program. One respondent thought an increase in participation might occur if students were not tempted by unhealthy snacks.

Most Important Elements of a Successful Policy

Stakeholders recommended communication and education as important elements for school nutrition policy success:

- ❖ “Pre- or post-policy, have communication with all staff so that all have the same goal.”
- ❖ “I would suggest they [other school districts] communicate with the parent leadership, communicate with the teachers and staff at school. . . .”
- ❖ “Make students aware of the change.”
- ❖ “Parent education. Staff education. Student education.”

Stakeholders also recommended utilizing data for policy success:

- ❖ “Supply data from schools that have done it.”
- ❖ “Do an analysis of what you’re serving. Compare that to national and nutrition guidelines.”
- ❖ “The health of the children, the increased risk of diabetes are important when pitching it to parents and kids – increase awareness, use the data.”
- ❖ “Be well-researched.”

One stakeholder recommended a holistic approach including physical activity and nutrition.

“Don’t look only at the vending machines in isolation. Are you doing all you can to promote healthy lifestyles and healthy habits for life? Are there other things we can do to promote health?”

Changes to Expect From the Policy

Most respondents felt the action would benefit students’ health and improve awareness about healthy beverage options.

When asked specifically about the action’s impact on rates of childhood obesity, several respondents hoped that it would have an impact on students’ weight but only one thought that it actually would. Several pointed to the influence of other factors such as physical activity, foods served at home, and changes in the community food environment on obesity.

IV. Environmental Assessment

An environmental assessment instrument was created to examine the school nutrition and physical activity environment. While an original tool was developed, the authors drew from previously released

and tested tools such as the Centers for Disease Control and Prevention's *School Health Index for Physical Activity and Healthy Eating: A Self-Assessment and Planning Guide (Middle School/High School Version)*.

The following components of the school environment were evaluated by using the environmental assessment tool:

- ❖ Type, size and cost of beverages and foods sold a la carte in vending machines, student stores and by food services
- ❖ Locations, times, and facilities for a la carte beverage and food sales
- ❖ Contracts and purchase mechanisms for a la carte beverages and foods
- ❖ Estimated income generated through a la carte beverage and food sales
- ❖ Beverage and food sales at athletic and other school events for fundraising
- ❖ Time available for meals
- ❖ Advertising and promotion of brand name beverages and foods on campus
- ❖ Number and functionality of water fountains

A. Methods

School Visits:

Environmental assessment data was collected through observation and interviews with key school or district staff. Evaluation team members visited selected schools, observed break and meal periods and cataloged the foods and beverages for sale on campus. Additional information, such as current contracts and revenue estimates, was collected via interviews with principals, food service directors, and teachers. The complete assessments took from four to six hours to conduct.

Data Analysis:

The environmental assessment forms were completed in hard copy format, data entered and then analyzed using SPSS. The database used to analyze the foods inventoried in the case studies combined nutrient data from several sources. When available, nutrient data from food packages or the school district's own nutrient analyses were used. Nutrient information was also obtained from manufacturers for brand name items with nutrition information accessible via the Internet or by phone. Finally, standard reference values were used to build nutrient profiles for some foods for which we could not obtain nutrient data in any other way. Standard reference values were obtained from USDA nutrient databases (USDA Nutrient Database for Standard Reference, Release 17, <http://www.nal.usda.gov/fnic/foodcomp>. FNDDS: *USDA Food and Nutrient Database for Dietary Studies, 1.0*. 2004, Beltsville, MD: Agricultural Research Service, Food Surveys Research Group, <http://www.ars.usda.gov/Services/docs.htm?docid=7673>). The USDA standard reference values have been used to characterize the nutrient content of the U.S. national food supply for 110 years. Because the USDA nutrient databases are essential to the calculation of school, hospital, and other institutional menus, and because federal nutrition monitoring activities depend heavily on USDA's food composition data, the USDA nutrient profiles were used in this analysis to provide nutrient information for a number of typical foods sold on the case study campuses.

Nutrient profiles for a la carte foods were developed from this information and used to conduct nutrient analyses on the foods sold in schools.

Survey Limitations:

Consideration of the findings from this survey should take into account the following study limitations:

- ❖ The survey uses some self-reported data.
- ❖ A validity study was not conducted with the survey instrument.
- ❖ Response to the environmental assessment questions was on a voluntary basis.
- ❖ The sample is not representative of all California schools and therefore is not generalizable to all districts and/or middle and high schools.
- ❖ The changing nature of school beverage and food sales – some districts are continuing to implement their policies and might be further along than they were at the time of data collection.

B. School Demographics

The majority of students at two of the schools were Caucasian. At one of the schools, the majority of students were Hispanic. (Table 1) The two middle schools and one high school evaluated within CUSD ranged in size from 1,165 to 2,885 students. (Table 2)

Table 1 Ethnicity of students

School	Ethnicities - Percentages					
	Hispanic	African-American	Asian/Pacific Islander/Filipino	Caucasian/White	Native American	Multiple/No Response
School 1	19.8%	0.9%	2.0%	74.9%	0.6%	1.7%
School 2	51.0%	0.6%	1.4%	45.4%	0.5%	1.0%
School 3	8.4%	2.6%	11.1%	70.7%	0.3%	6.8%

Source: Ed-data, California Department of Education, 2003-2004

Percentage of Students Eligible for Free and Reduced-Priced (FRP) Meals:

Students are eligible for a free National School Lunch Program (NSLP) meal if their family income is at or below 130 percent of the federal poverty level. Students are eligible for reduced-price NSLP meals if their family income is between 130 and 185 percent of the federal poverty level. Previous studies have found that students from poor households are more likely to participate in the school meal program and not purchase a la carte foods. In the three schools assessed in CUSD, participation in the free and reduced-price meal ranged from 5.4% to 43%.

Table 2 Student population and percentage of students eligible for free/reduced price meals

School	Number of students	FRP eligibility
School 1	1,165	19.2%
School 2	1,645	43%
School 3	2,885	5.4%

Source: Ed-data, California Department of Education, 2003-2004

C. Beverage Findings

i. Vending Machines

Locations and Venues of Beverage Vending Machines:

All three CUSD schools had beverage vending machines. There were a total of 37 beverage vending machines across these schools. A variety of beverages were sold in vending machines accessible to students. Vending machines were primarily located in athletic/p.e. areas, quads/courtyards, and food courts. In two schools, vending machines were accessible to students all day. At one school, they were accessible only after school.

Advertising on Beverage Vending Machines:

Most of the beverage vending machines had advertising on the front panel: 16 machines advertised water, 14 advertised sports drinks, 2 advertised sweetened milk, and 1 advertised fruit juices and/or fruit drinks. Two machines had front panels that did not advertise beverages – they contained a collage of photos of young people.

Purchase Mechanism for Vending Machine Beverages:

Beverages in vending machines in the three schools were obtained through contracts held by the district. Principals managed the vending revenues that were returned to the school.

Vending Machines Inaccessible to Students:

There were three beverage vending machines that were inaccessible to students during the school day. These machines were located in staff or teachers' lounges.

Table 3 Beverage vending machines inaccessible to students

	Number of vending machines
Staff Area	3

The following beverages were found in staff/teacher vending machines: soda (48%), diet soda (36%), water (8%) and sweetened coffee/tea drinks/hot chocolate (8%).

Variety of Vending Machine Beverages:

As part of the environmental assessment, data was collected on the variety of beverages available for sale in the vending machines accessible to students during the school day. These individual beverages were then grouped into various categories (for example, soda, 100% juice, sweetened juice drink, sweetened coffee/tea drink/hot chocolate, sports drink, water, and sweetened milk). The frequency and availability of the vending machine beverages was determined based on the number of slots per vending machine devoted to each of the beverages.

Across the three schools, there were a total number of 327 vending machine slots occupied by a variety of different beverages. (Table 4)

No sodas were available for sale in vending machines on the three campuses. The most frequently available beverages for sale in middle school vending machines were sports drinks (39%) and sweetened juice drinks (33%). At the high school, the most frequently available beverages were sports drinks (50%).

Table 4 Number and frequency of beverages available in vending machines

	Middle (n=2)		High School (n=1)	
	Number of Slots ^a	Percent of Slots	Number of Slots	Percent of Slots
Sports drink	47	39%	103	50%
Water	10	8%	51	25%
Sweetened juice drink	39	33%	39	19%
Sweetened coffee/tea drink/hot chocolate	3	3%	8	4%
100% juice		0%	7	3%
Sweetened milk: >2% fat, or >0% fat and >8oz	20	17%		0%
Soda		0%		0%
Diet soda		0%		0%
Total	119	100%	208	100%

^a 9 empty slots were recorded.

Size and Cost of Vending Machine Beverages:

On average, the serving size for most beverages sold in vending machines was 19.8 ounces, with a range of 15.2 ounces to 20 ounces. The prices of beverages available in vending machines ranged from \$1.00 to \$1.50 in middle schools. At the high school, all vended beverages cost \$1.00. Although the average cost of vending machine beverages did not vary greatly across beverage categories, sweetened milk drinks were the most expensive beverage per ounce (average cost of \$.09), while most other beverages were \$.05 per ounce.

ii. Food Service A La Carte Beverages

A number of beverages at schools are offered for sale “a la carte” by the food service department. A la carte beverages are sold separately from the beverages offered as part of the NSLP¹ program and food service departments can choose to sell a wide variety of a la carte beverages.

Locations for Food Service A La Carte Beverage Sales:

In the middle schools, a la carte beverages were sold in cafeterias and from snack carts. Snack carts were located in courtyards or outside the cafeteria. At the high school, a la carte beverages were sold from a snack bar and snack carts located in the courtyard/quad areas and food court.

Purchase Mechanism for Food Service A La Carte Beverages:

Beverages sold a la carte were purchased by district food services from vendors. All monies from food service a la carte sales are returned to the district food services department.

¹ National School Lunch Program (NSLP): This program, administered by the United States Department of Agriculture (USDA) in cooperation with state and local education agencies, subsidizes the cost of preparing and serving meals at participating schools. The NSLP assures that lunch is available to all students at participating schools and that the meals meet specific nutritional requirements.

Variety of Food Service A La Carte Beverages:

Food services sold a variety of beverages across schools. *School food service departments were not selling any sodas a la carte.* The most frequently available varieties of a la carte beverages for sale were 100% juice (25%), sweetened juice drinks (24%) and sports drinks (18%). High schools offered a wider variety of 100% juices (11 different juices) than middle schools (3 different juices). Sports drinks and sweetened juice drinks comprised a greater percentage of all beverage offerings by food services in middle schools (28% and 34%, respectively) than in high schools (8% and 12%, respectively).

Table 5 Variety and number of a la carte beverages-food services

	Middle School (n=2)		High School (n=1)		Total (n=3)	
	N	(%) of all beverages	N	(%) of all beverages	N	(%) of all beverages
100% juice	3	(10%)	11	(42%)	14	(25%)
Sweetened coffee/tea/hot chocolate	2	(7%)	6	(23%)	8	(15%)
Sports drink	8	(28%)	2	(8%)	10	(18%)
Sweetened juice drink	10	(34%)	3	(12%)	13	(24%)
Water	2	(7%)	1	(4%)	3	(5%)
Sweetened milk:						
non-fat and 8oz or less	2	(7%)	1	(4%)	3	(5%)
Unsweetened milk:						
% fat unknown	2	(7%)	1	(4%)	3	(5%)
Sweetened milk:						
>2% fat, or >0% fat & >8oz		(0%)	1	(4%)	1	(2%)
Total	29	(100%)	26	(100%)	55	(100%)

The average serving size for most beverages sold a la carte by food services ranged from 4 ounces (100% juice) to 24.65 ounces (water). The prices of these beverages ranged from \$.35 (100% juice, sweetened milk, and unsweetened milk) to \$1.00 (sweetened juice drink, sports drink, and water) in the middle schools and \$.35 (100% juice, sweetened milk, and unsweetened milk) to \$2.75 (100% juice) at the high school. When food service beverage prices were compared per ounce, water was cheapest (\$0.04 per ounce) and 100% juice was most expensive (\$.13 per ounce).

iii. Beverage Adherence to Policy Standards

Beverages sold on campus were analyzed to determine if they were meeting the nutrient standards for beverages as set forth in the district’s policy. CUSD’s Board Action prohibits the sale of vended beverages that are inconsistent with the SB19 standard of no carbonated beverages. The district applied this standard to all school campuses.

BEVERAGE STANDARD FOR CUSD VENDING

- No carbonated beverages (SB19)

Note: The Board Action also requires that milk products be available in vending machines. This standard was not applied in the analysis.

Although the Board action refers only to vending machines, the analysis was applied to *both* venues in which beverages were sold (vending machines and food services) to inform the district’s potential for applying the standards across a la carte venues.

CUSD was successful in meeting the SB19 standard that prohibits carbonated beverages. No carbonated beverages were available for sale at the two middle schools and high school visited (Table 6).

Table 6 Number and percent of beverages adhering to district beverage standards-all venues

	Number of beverage offerings ^a	Percent of beverages that are allowed under district standards
	N	(%)
Sports drink	160	100%
Sweetened juice drink	91	100%
Water	64	100%
100% juice	21	100%
Sweetened milk: >2% fat, or >0% fat and >8oz	21	100%
Sweetened coffee/tea/hot chocolate	19	100%
Sweetened milk: non-fat and 8oz or less	3	100%
Unsweetened milk: % fat unknown	3	100%
Total	382	100%

^a 1 beverage could not be categorized into the appropriate beverage category, and is thus missing from this table.

One hundred percent (100%) of beverages available for sale in vending machines and by food services adhered to the district beverage standard (Table 7).

Table 7 Percent of beverages adhering to district beverage standards, by venue

	Middle School	High School	Total ^a
Vending Machines	100%	100%	100%
School Food Service	100%	100%	100%
Total	100%	100%	100%

^a 3 beverages/slots could not be categorized into the appropriate beverage category, and are thus missing from this table.

iv. Water Fountains

As part of the environmental assessment of beverages available to students on campus, the availability of water fountains was documented, and water fountain function was assessed to determine actual availability of free water to students on campus. The number of water fountains per school ranged from 9 to 33. On average across schools, 81% of water fountains were working, and 19% were not.

D. Food Findings

The environmental assessments cataloged all of the a la carte food items sold on the campuses visited. Foods were sold in the same locations as beverages. Both of these locations were assessed to determine their adherence to the district board action.

i. A La Carte Food Venues

A la carte foods were sold in the following venues on the campuses visited.

Vending Machines: A combined total of 7 food vending machines were found in the schools visited. The middle schools each had 2 food vending machines. The high school had 3. Food vending machines were most commonly found in athletic/p.e. areas, courtyards/quads, and in food court areas. In two schools, vending machines were accessible to students all day. At one school, they were accessible only after school.

Food Service: In the middle schools, the food service department sold a variety of a la carte foods from snack carts and from the cafeteria. At the high school, a la carte foods were sold from snack carts and the snack bar.

Food Type by Venue: Particular a la carte food items were found more frequently in certain venues (Table 8). Vending machines offered more items from the chips, crackers and popcorn category than school food service. The food services department was the only venue selling certain other items such as frozen desserts, fruits and vegetables, fries, and bagels and breads.

Table 8 Number of a la carte items in each food category by venue (all schools)

	Main School Venue		Total
	Vending	School Food Service	
Chips, Crackers & Popcorn	75	17	92
Frozen Desserts		13	13
Cake and Pastry Products	7	5	12
Snack Bars ^a	12		12
Fruit & Vegetables		11	11
Hot Entrees ^a		2	2
Cookies	6	3	9
Meat Snacks	7		7
Trail Mix	3	3	6
Fries		5	5
Baked Chips	2	2	4
Bagels & Breads		1	1
Candy, regular & sugarless ^a	2		2
Seeds & Nuts	2		2
Cereal & Oatmeal		1	1
Pizza products		1	1
Side Salads		1	1
Total	116	65	181

^a Items offered in the Hot Entrees category included instant soups. The Snack Bars category included various flavors of granola bars and cereal bars. The Candy category included mints.

Food Price by Venue:

Across venues, the cost of a la carte food items ranged from an average of \$0.40 for fruits and vegetables to \$1.50 for side salads (Table 9).

Vending items ranged from an average of \$0.75 for items such as seeds and nuts, snack bars, trail mix, and candy to \$1.25 for cake and pastry products. Food service a la carte prices ranged from an average of \$0.40 for fruits and vegetables to \$1.50 for side salads. On average, items in vending machines were consistently priced more than foods in the same category sold by food services.

Table 9 Average price of a la carte items in each food category by venue (all schools, all venues)

	Main School Venue		
	Vending	School Food Service	Average
Side Salads		\$1.50	\$1.50
Chips, Crackers & Popcorn	\$1.11	\$0.73	\$1.05
Bagels & Breads		\$1.00	\$1.00
Hot Entrees ^a		\$1.00	\$1.00
Cake and Pastry Products	\$1.25	\$0.75	\$1.00
Meat Snacks	\$1.00		\$1.00
Pizza products		\$1.00	\$1.00
Cookies	\$1.00	\$0.75	\$0.88
Baked Chips	\$1.00	\$0.75	\$0.83
Fries		\$0.80	\$0.80
Candy, regular & sugarless	\$0.75		\$0.75
Snack Bars ^a	\$0.75		\$0.75
Seeds & Nuts	\$0.75		\$0.75
Frozen Desserts		\$0.73	\$0.73
Trail Mix	\$0.75	\$0.50	\$0.60
Fruit & Vegetables		\$0.40	\$0.40
Average ^b	\$1.05	\$0.70	\$0.91

^a Items offered in the Hot Entrees category included instant soups. The Snack Bars category included various flavors of granola bars and cereal bars. The Candy category included mints.

^b Cost data is missing from 28 vending machine items, 6 food service items; thus, those items are not included in this table.

ii. Nutrient Profile of A La Carte Foods

The nutrient profile of each a la carte item available on the participating school campuses was assessed based on nutrient information obtained from food labels, the manufacturer, or a USDA nutrient database. (See the Methods section for a more complete description of the nutrient analysis.)

Calories:

The a la carte food items provided a wide range of calories per serving (Table 10). Besides Candy (with 5 calories per serving) fruits and vegetables had the lowest average calories per serving (47 calories) and pizza had the highest average calories – 418 per serving.

Percent of Calories from Total Fat:

A number of food categories contained items with a total fat content above the level recommended by the CUSD guidelines for fat (Table 10). Pizza had an average fat content of 53% while chips and fries had an average fat content of 44%.

Seeds and nuts had 72% of calories from fat. However, these high fat foods are considered healthy because of their high concentration of healthy oils or other essential nutrients. Categories with the lowest average fat content included side salads (17%), baked chips (16%), fruits and vegetables (6%), and candy (0%).

Percent of Calories from Saturated Fat:

Approximately 35% of the a la carte food categories had an average percent of calories from saturated fat that exceeded the guidelines for CUSD. Table 10 shows the percent of calories from saturated fat for all food categories. The following categories had the highest average saturated fat content: bagels and breads (20%), hot entrees (19%), pizza (17%), frozen desserts (14%), and fries (14%).

Percent of Total Weight from Sugar:

As expected, sweet items had the greatest average percentage of total weight from sugar (Table 10). These items included candy (50%), cake and pastry (43%), cereal and oatmeal (40%) and cookies (37%). The food category with 0% weight from sugar was meat snacks.

Table 10 Average nutrient profile of foods (all schools, all venues)

	Number of items (n)	Calories per serving	Percent of calories from TOTAL FAT (Up to 35% allowed under district standards)	Percent of calories from SATURATED FAT (Up to 10% allowed under district standards)	Percent of weight from SUGAR (Up to 35% allowed under district standards)
Pizza products	1	418	53	17	1
Bagels & Breads	1	294	34	20	1
Hot Entrees ^a	2	290	37	19	4
Trail Mix	3	249	60	9	18
Frozen Desserts	13	238	26	14	17
Cake and Pastry Products	12	238	24	5	43
Cookies	6	213	25	6	37
Chips, Crackers & Popcorn	92	179	44	9	4
Snack Bars ^a	12	155	24	5	33
Seeds & Nuts	2	150	72	12	4
Baked Chips	4	125	16	1	7
Fries	5	98	44	14	1
Cereal & Oatmeal	1	80	11	0	40
Meat Snacks	7	77	26	6	0
Side Salads	1	61	17	6	5
Fruit & Vegetables	8	47	6	0	6
Candy, regular & sugarless	2	5	0	0	50
Total / Average ^{b c}	172	174	36	8	12

^a Items offered in the Hot Entrees category included instant soups. The Snack Bars category included various flavors of granola bars and cereal bars. The Candy category included mints, one of which was sugar free.

^b Calorie, weight, fat grams, saturated fat grams, or sugar gram data is missing from 9 items, which are not included in this table.

^c The number of items is a total, the remaining columns in this row represent averages.

iii. Adherence to Nutrient Standards

District Nutrient Standards

The CUSD Board action requires that food sold in vending machines be consistent with SB19 guidelines. Vending machine foods were analyzed to determine if they adhered to the standard. The analysis was *also* applied to a la carte foods sold by food services to inform the district’s potential for applying the standard in both venues.

NUTRIENT STANDARD FOR CUSD

- Up to 35% of calories from total fat
- Up to 10% of calories from saturated fat
Fat stipulations do not apply to seeds and nuts
- Up to 35% of weight from sugar
Sugar stipulations do not apply to fruits and vegetables

Out of the 17 a la carte food categories, 9 categories had a majority of food items that did not adhere to at least one of the district nutrient standards (Table 11). In 6 categories, 100% of the food items did not adhere to at least one of the district standards.

Categories with 100% of products adhering to district nutrient standards included bagels and breads, baked chips, seeds and nuts, fruits and vegetables, and side salads. At least 50% of products in the candy, frozen dessert, and meat snack categories adhere.

Table 11 Adherence of a la carte foods to district standards-all venues

	Number of items (n)	Percent ALLOWED under district policy
Hot Entrees ^a	2	0%
Cereal & Oatmeal	1	0%
Cookies	7	0%
Fries	5	0%
Pizza products	1	0%
Trail Mix	6	0%
Cake and Pastry Products	12	17%
Chips, Crackers & Popcorn	92	25%
Snack Bars ^a	12	25%
Candy, regular & sugarless	2	50%
Meat Snacks	7	71%
Frozen Desserts	13	77%
Bagels & Breads	1	100%
Baked Chips	4	100%
Seeds & Nuts	2	100%
Fruit & Vegetables	11	100%
Side Salads	1	100%
Total ^b	179	35%

^a Items offered in the Hot Entrees category included instant soups. The Snack Bars category included various flavors of granola bars and cereal bars.

^b Nutrient information was unattainable from 2 items, therefore, they are not included in this table.

Adherence to District Nutrient Standards by Venue

Vending Machines: Most of the items (72%) sold in vending machines did not adhere to the district standards. Foods in the baked chips, and seeds and nuts categories adhered fully (100%) to the policy. The food categories with at least 50% of items adhering to the district standards were candy (50%), and meat snacks (71%).

Table 12 Adherence of a la carte foods to district standards-vending machines

	Number of foods offered (N)	Percent that are ALLOWED under district policy
Baked Chips	2	100%
Seeds & Nuts	2	100%
Meat Snacks	7	71%
Candy, regular & sugarless	2	50%
Snack Bars ^a	12	25%
Chips, Crackers & Popcorn	75	24%
Cake and Pastry Products	7	14%
Cookies	6	0%
Trail Mix	3	0%
Total	116	28%

^a The Snack Bars category included various flavors of granola bars and cereal bars.

Food Services:

Forty-nine percent (49%) of items sold by food services were allowed under the district standards. Foods in the bagels & breads, baked chips, fruits & vegetables, and side salad categories adhered fully (100%) while 77% of frozen desserts adhered.

Table 13 Adherence of a la carte foods to district standards-food services

	Number of foods offered (N)	Percent that are ALLOWED under district policy
Bagels & Breads	1	100%
Baked Chips	2	100%
Fruit & Vegetables	11	100%
Side Salads	1	100%
Frozen Desserts	13	77%
Chips, Crackers & Popcorn	17	29%
Cake and Pastry Products	5	20%
Hot Entrees ^a	2	0%
Cereal & Oatmeal	1	0%
Cookies	1	0%
Fries	5	0%
Pizza products	1	0%
Trail Mix	3	0%
Total	63	49%

^a Items offered in the Hot Entrees category included instant soups.

^b Nutrient information was unattainable from 2 items, therefore, they are not included in this table.

V. Discussion

Capistrano Unified School District was one of the first school districts in the State to address the nutritional quality of beverages and foods sold on campus. The CUSD School Board unanimously passed a district-wide action that set nutrition guidelines for beverages and foods sold in vending machines on school campuses. Stakeholders at the district and school levels reported a high level of school community support for the Board action. They credited Food and Nutrition Services staff with bringing the issue of child overweight and the importance of healthy beverage and food options to the Board's attention. Stakeholders identified no significant barriers (such as fear of vending revenue loss) to implementing the Board action.

By entertaining only bids from vending service providers that meet the SB19 guidelines, the district shifted some of the burden of implementation and monitoring to the vendor. Because Capistrano's campuses are closed, the action has the potential to significantly impact a la carte beverage and food consumption during the school day. The role of the district and schools in monitoring vendor compliance is not addressed in the Board action, however.

CUSD was able to successfully eliminate the sale of carbonated beverages on school campuses. The district planned to phase in changes to the vended a la carte foods over time.

Nearly two-thirds of foods sold a la carte on the three campuses did not adhere to the district standard. Many of the foods that did not adhere were high in fat, saturated fat or sugar. A greater proportion of foods offered by food services (49%) met the standards than foods offered in vending machines (28%).

The findings from this case study demonstrate that schools are able to develop and implement nutrition guidelines to improve a la carte beverages and foods sold on campus. Opportunities remain for improving the school nutrition environment as shown in the analysis of food adherence to the district standards. School community support for healthy beverages and foods and centralization of vending contracts at the district level provide ideal conditions for further change.

VI. Key Lessons Learned

- ❖ School districts are able to develop and implement guidelines for beverages and foods sold a la carte on campus.
- ❖ School districts and schools are able to eliminate carbonated beverage sales.
- ❖ The support of the school community and leadership from food service departments play a role in the development and passage of board actions to regulate beverage and food sales.
- ❖ Nutrition standards for a la carte beverages and foods should be clearly defined.
- ❖ School nutrition policies should apply to all venues in which a la carte beverages and foods are sold.
- ❖ The process of monitoring and implementing nutrition guidelines should be centralized and well-defined.

VII. Epilogue

Since Samuels & Associates conducted its case study in Spring, 2004, Capistrano Unified School District reports the following improvements in vending and food services for the promotion of healthier choices for students:

- Meet the guidelines for beverages as specified in SB677 for elementary and middle schools. Vending machines were removed completely at several middle schools. Existing vending machines are monitored regularly for compliance.
- Offer a reduced fat chocolate chip cookie and reduced fat brownie that meet SB19 guidelines.
- Offer only baked chips in elementary, middle school, and high schools.
- Received grant for Nutrition Network funds to further nutrition education in schools with a 50% or above free and reduced rate.
- Reduction of sports drink size from 20 oz. to 12 oz. at most middle schools.
- Have a competitive food sales policy in place and are in the process of working on the mandated “Wellness Policy” which will address all foods offered on CUSD campuses.

Since the Board action was implemented, water consumption was reported to have increased, and beverage vending revenue remained stable.

Capistrano Unified School District’s experience in implementing district wide standards for a la carte items (beverages and foods) will be useful to school districts across California as they start to implement the SB 12 and SB 965 legislation passed in September 2005. The challenges and successful strategies identified during the implementation of Capistrano Unified School District’s policy will inform other districts and help guide them as they institute standards for a la carte foods and beverages.

Appendix A

TERMINOLOGY

The following terms are used in this report:

Sweetened fruit drinks: Any beverage that contains fruit juice or fruit flavorings and added sweetener, including but not limited to: high fructose corn syrup and sugar.

Sports drinks: Beverages that contain no more than 40 grams of sweetener per 20 ounces, sodium and other electrolytes (such as potassium). These beverages often call themselves *electrolyte replacement beverages*.

Fast Foods: These include a wide variety of foods such as popular entrees like pizza and tacos, as well as items such as cookies, chips, and pastries. Fast foods are classified as branded and non-branded items.

Branded Foods: Items sold under a recognized retail brand name such as Domino's Pizza or Taco Bell.

Non-branded Foods: Generic items that are not sold under a brand name.

Food Service: The department within the school district or school that operates the school breakfast and/or lunch program. This includes the operation of the National School Lunch Program. The Food Service Department also may be referred to as the Child Nutrition Program.

National School Lunch Program (NSLP): This program, administered by the United States Department of Agriculture (USDA) in cooperation with state and local education agencies, subsidizes the cost of preparing and serving meals at participating schools. The NSLP assures that lunch is available to all students at participating schools and that the meals meet specific nutritional requirements.

Free or Reduced-Price Lunch: Students are eligible for a free NSLP meal if their family income is 130 percent of the federal poverty level or below. Students are eligible for a reduced price NSLP meal if their family income is between 130 percent and 185 percent of the federal poverty level. Students who do not meet the family income requirements for a free or reduced price lunches are allowed to purchase the NSLP meal at full price.

A La Carte: Foods sold individually and not as part of a complete NSLP meal. A la carte items are exempt from the dietary guidelines to which the NSLP meals must adhere. A la carte items may include fast foods.

Open Campus: On an open campus, students are allowed to leave during break periods and lunch.

Closed Campus: A closed campus does not allow students to leave during the school day.

SB 19: These guidelines stipulate that all a la carte food items shall adhere to the following: total fat content not to exceed 35% of calories, saturated fat content not to exceed 10% of calories, and sugar content not to exceed 35% total weight.

SB 965: This legislation expands the language in SB677 that describes the type of beverages that can be sold in elementary and middle schools to include all K-12 pupils (including high schools). Starting July 1, 2007, 50 percent of the beverages sold to high school pupils from one-half hour before the school day until one-half hour after the school day must be from the following list: fruit-based and vegetable-based drinks that are at least 50 percent fruit juice without added sweeteners; drinking water without added sweeteners; milk products including two-percent, one-percent, non-fat, soy, rice and other similar nondairy milk; an electrolyte replacement beverage that contains no more than 42 grams of added sweetener per 20-ounce serving. Starting July 1, 2009, ALL beverages sold to high school pupils from one-half hour before the start of the day until one-half hour after the school day must be from the above list. Current beverage standards for elementary and middle schools will remain in effect.

SB 12: Strengthens and implements the competitive food standards originally described in SB19. An individually sold snack may have no more than: 35% of its calories from fat (excluding legumes, nuts, nut butters, seeds, eggs, non-fried vegetables, and cheese packaged for individual sale); 10% of its calories from saturated fat (excluding eggs and cheese packaged for individual sale); 35% sugar by weight (excluding fruits and vegetables); 175 calories (elementary schools); 250 calories (middle and high schools). An individually sold entrée may have no more than: 4 grams of fat per 100 calories; 400 calories; and must qualify under the federal meal program. All food standards become effective July 1, 2007.