Feature Articles

Soft Drink Vending Machines in Schools: A Clear and Present Danger

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ABSTRACT

This paper examines the availability of soft drinks in schools ("pouring rights contracts") and its effects on the growing nutritional problems of American youth. Of special concern is the prevalence of overweight youth, which has been increasing at alarming rates. There has been a direct relationship found between soft drink consumption and overweight in youth. Soft drinks account for as much as 20% to 24% of the calories consumed by youth. Higher rates of soft drink consumption are seen in youth from lower socioeconomic backgrounds. School administrators play a negative role in the health of students when they allow commercialism (advertising and selling of products to students) in their schools. Soft drink companies have been at the forefront of commercialism in schools. These "pouring rights contracts" have helped encourage student addictions to high-calorie soft drinks, while at the same time making school administrators accustomed to the financial gains. Yet, many school administrators do not perceive pouring rights contracts as jeopardizing the health of students. Banning the sale of soft drinks on school campuses must be a higher priority for those concerned about the health of youth.

INTRODUCTION

> American Beverage Association President and CEO Susan Neely announced the organization's policy recommendation that vending machines stock only bottled water and 100% juice in elementary schools. Middle school students would have access to additional drinks, like sports drinks, no-calorie soft drinks, and low-calorie juice drinks. She indicated the industry needs to help fight the increasing rate of childhood obesity.
>
> – Olympia, WA August 16, 2005 —– Associated Press

The aforementioned American Beverage Association policy recommendation is just that: a recommendation to its membership bottlers who represent 85% of the bottlers. Local bottling companies are independently owned and are free to ignore their national organization's recommendations. Thus, there is a continuing need to educate community leaders, parents, and school personnel regarding the contribution of soft drink vending in schools to the growing youth obesity problem.

This article explores the growing problem of soft drinks readily available in schools. More specifically, it examines the epidemic of overweight in youths followed by the role of soft drink consumption contributing to the overweight youth problem. This is followed by a section on commercialism and the more specific component, pouring rights contracts in schools and its impact on overweight youth. The final section of this paper offers several potential points of intervention (local, state, and national) for reducing the role of ubiquitous soft drinks in schools.

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Table 1. Nutrient Compositions of Soft Drinks, Frozen Orange Juice (OJ)*, and Milk

Nutrients	Coca-Cola	Pepsi-Cola	Mt. Dew	Dr. Pepper	OJ	Milk (1%)
Calories (kcal)	144	160	170	150	168	153
Sugar (g)	38	40	46	40	40	18
Vitamin A (IU)	0	0	0	0	291	750
Vitamin C (mg)	0	0	0	0	146	3
Folate (micro/g)	0	0	0	0	164	18
Calcium (mg)	0	0	0	0	33	450
Potassium (mg)	0	0	0	0	711	352
Magnesium (mg)	0	0	0	0	36	51
Phosphate (mg)	60	55	< 1	45	60	353

*Made from concentrate; all servings are based on a 12-ounce serving.
Source: Personal contact with soft drink companies' consumer information lines on March 17, 2005 and Nestle M. Soft drink "pouring rights": marketing empty calories to children. *Pub Health Rep*. 2000; 115: 308–319.

The Overweight Epidemic

American youths are in the midst of an overweight or risk of being overweight epidemic. Excess weight is the most common health problem facing America's youth.[1] In the United States, youths with a body mass index (BMI) at the 85th percentile for age and gender is defined as "at risk for overweight," formerly termed "overweight,"[2] while the 95th percentile of BMI for age and gender is defined as "overweight," formerly termed "obese." Obesity, which has traditionally been defined as excess body fat, has been replaced with the term "overweight." Approximately one in every three of America's youths are at risk for overweight, and one in every six is overweight.[3] Furthermore, the level of overweight in youths 6–11 years of age doubled and more than tripled among those 12 to 19 years of age from 1976–1980 to 1999–2000.[4] Overweight in youths also varies by race/ethnicity. African American girls experience higher rates of being overweight than do whites or Hispanics.[5] African American boys are more likely to be overweight than whites, but less likely to be overweight compared to Hispanic boys. In addition, the relationship between socioeconomic status and overweight in youths is tenuous. The strongest evidence of low socioeconomic status impacting overweight in youths is a positive relationship for white females.[5]

Overweight youths are at an increased risk of becoming overweight adults.[6,7] Furthermore, comorbidities traditionally observed in overweight adults are now commonly seen in overweight youths. Positive associations have been found between excess weight in youths and increased blood pressure,[8,9] type 2 diabetes,[10,11] increased cholesterol and triglyceride levels,[12] respiratory disease,[13] orthopedic problems,[14] gallbladder disease and sleep apnea.[15] Overweight children report a fivefold increased risk of low health-related quality of life, similar to children afflicted with cancer.[16] Research also indicates that overweight children are more likely to exhibit poorer psychological outcomes such as poor self-esteem and depression, especially for overweight girls.[17,18] Finally, the morbidities associated with being an overweight youth has created a threefold increase in health care costs in the past 20 years, reaching $127 million a year.[15] The health costs of overweight adults has escalated to $75 billion in 2003 dollars with one-half of these expenditures paid for by Medicaid and Medicare.[19]

Soft Drink Consumption and Overweight

In 1997, Americans spent $54 billion on soft drinks, and adolescents consumed the greatest portion of those drinks.[20] U.S. per capita consumption of soft drinks increased by fivefold from about 1950 to 2000.[21] The *Washington Post* has reported (*Washington Post*, March 23, 1999, z12) that per capita consumption of soft drinks is approaching 60 gallons a year. This increase was, in part, the result of huge advertising expenditures of soft drink companies and the omnipresence of soft drinks and sugar-enhanced fruit drinks in schools. For example, the combined advertising budgets of Coca-Cola and PepsiCo were almost $3 billion in 2001.

There are a variety of concerns associated with regular and frequent consumption of beverages that contain primarily sugar and little else (Table 1).[22] Soft drinks have been referred to by some as "liquid candy."[20] A typical 12-ounce soft drink serving contains about 150 kcal, equivalent to 10 teaspoons of sugar. An examination of the products purchased by soft drink manufacturers indicates that the majority of manufacturers primarily purchase a variety of sweeteners to put in flavored carbonated water (Table 2).[23] In addition, common serving sizes for soft drinks have been increasing: 6.5 ounces in the 1950s; 12 ounces in the 1960s; and 20 ounces by the late 1990s.[24] Depending on age, gender, and socioeconomic status, between 56% and 85% of school children consume at least one soft drink a day, with adolescent males consuming the greatest amounts. Approximately 25% of adolescents drink more than 26 ounces of soft drinks per day.[20] The leading source of added sugars in the adolescent diet is now soft drinks,[20,25] accounting for as much as 40% of added sugars, and

Table 2. Ingredients Purchased by Most Soft Drink Manufacturers or Juice Processors in 2004

Ingredient	Percent of Companies Purchasing Product
Soft Drink Manufacturers	
Sweeteners/Blends*	80
Caramel Color	73
Caffeine	73
Juice/Concentrates	67
Sugar*	67
Corn Sweeteners*	67
Sucralose*	67
Aspartame*	67
Juice Processors	
Juice/Concentrates	84
Flavors	73
Sweeteners/Blends*	57
Citric Acid	54
Sucralose*	51

*Sweeteners were the ingredients purchased most often.
Source: Penn C. 2005 R & D Survey: new drinks include a health benefit in '05. *Beverage Industry.* 2005;96(1):46.

combined with fruit drinks they constitute more than 50% of added sugars.[26] The consequences are excessive calorie consumption and tooth decay, with no nutritional value.[27]

An additional concern with soft drink consumption has been the changing sweetener composition over the past 35 years. In 1970, companies introduced high-fructose corn syrup (HFCS) to the world by using enzymes to convert the inexpensive sweet corn-based sucrose syrups to a mixture high in fructose and glucose.[28] HFCS is the dominant sweetener in soft drinks and fruit-flavored drinks. HFCS now represents a little more than 40% of calorie sweeteners added to American foods. The digestion and metabolism of HFCS differs considerably from glucose. Glucose requires insulin to get inside cells, whereas fructose does not need insulin to enter cells.[28] Glucose can easily enter brain tissue and help provide a "satiety" signal to the brain, whereas fructose does not enter the brain and therefore does not give an equivalent satiety signal even though calories are being consumed (stealth calories). In addition, once inside cells, fructose is more easily changed than glucose to long-chain fatty acids, which can be more easily stored as fat. Thus, the consumption of calories from HFCS in soft drinks and fruit drinks is not compensated for in the diet and usually represents an intake of additional calories added to calories consumed from solid foods, indicating a serious potential mechanism for helping to create the current overweight epidemic in youths.

There have been at least half a dozen studies that have found a relationship between soft drink consumption and overweight. These studies have included both regional and national samples, and have included preschool, elementary, and high school students. A study of 504 students in grades four through six found those students in the highest one-third of sweetened beverage consumption consumed about 330 kcal extra per day when compared to students who did not consume sweetened beverages. In addition, students of color (Hispanics and African Americans) had the highest sweetened beverage (soft drinks and fruit drinks) consumption. Furthermore, students whose parents were less well educated (high school or less) had higher sweetened beverage consumption than students with better educated parents.[29] These high sweetened drink consumers were found to consume 62% less fruit than did those who were in the lower one-third of sweetened beverage consumers. Another study of 385 sixth- and seventh-grade students examined self-reported behaviors that were related to students who were overweight.[30] Two variables were significantly associated with being overweight: watching two or more hours of TV per night and consuming three or more soft drinks per day. Hispanic students were significantly more likely than non-Hispanic white students to consume more soft drinks.

In a study (n = 10,904) of preschoolers ages two and three years who were enrolled in a state WIC program, the amount of sweet drink (soft drinks, high-sugar fruit drinks, and high-sugar fruit juices) consumption averaged 2.9 drinks per day.[31] The consumption of one or two sweet drinks per day significantly increased, by a factor of two, young children becoming overweight if they had been at risk of overweight at the start of the study or it caused them to remain overweight if they had been overweight at the beginning of the study when compared to children who consumed less than one of these drinks per day. In other words, soft drink consumption was most likely to harm those already susceptible to becoming overweight.

Using the 1994 U.S. Department of Agriculture (USDA) Continuing Surveys of Food Intakes by Individuals (CSFII), which included 1,810 youths ages two to 18 years, researchers examined soft drink consumption and its nutritional consequences.[32] Compared to students who did not drink soft drinks, those who drank soft drinks consumed 188 kcal more per day, and consumed far less milk and fruit juices. Those who were White (rather than African American), male (rather than female), and adolescents (rather than elementary grades) were the highest consumers of soft drinks.

A group (>10,000) of predominately white nine- to 14-year olds were followed for three years to assess the effects of consuming sugar-added drinks (soft drinks, fruit drinks, and fruit juices) on weight gain.[33] During those years, self-reported soft drink consumption increased significantly and milk intake declined significantly. There was a linear association between number of sugar-added drinks consumed per day and weight gain in boys. Girls who drank one or more servings per day of sugar-added drinks gained significantly more weight than girls who did not drink such beverages, but the relationship was not a straightforward linear relationship as seen in the boys.

The final study in this series examined whether a school-based educational program aimed at reducing soft drink consumption could prevent excess weight gain in children seven to 11 years of age

(n=644).[34] The students were divided into a control group (n=319) and an intervention group (n=325). The intervention group received a four-hour anti-sweetened carbonated drink program, touting the benefits of drinking water to help reduce dental caries. At the end of 12 months, the intervention groups consumed a little more than a serving less in soft drinks and the percentage of overweight and at risk of overweight decreased by 0.2%, whereas the control group had a 7.5% increase in overweight and at risk of overweight students.

The aforementioned studies indicate the danger of soft drink consumption resulting in excessive calorie intake and contributing to the secular trend of weight gain by youths. However, another significant deleterious effect of soft drink consumption is the less obvious impact it has on decreased milk consumption and lowered calcium intake during many of the peak years when bone mass is being established. Milk is consumed by about 78% of 12-year old girls, but as they increase their soft drink consumption milk intake drops to only 36% of girls by age 19.[35] Such reduction in calcium intake may result in a 5% to 10% reduction in peak bone mass, and such a reduction in bone mass may be responsible for a 50% greater risk of hip fracture later in life.[36,37] Research indicates that physically active girls who drink soft drinks are three times as likely as girls who do not drink soft drinks to suffer bone fractures. Furthermore, if the soft drink is a cola, the risk of fracture increases by a factor of five.[38]

Commercialism, Pouring Rights Contracts, and Youth Overweight

Over the past 30 years, schools have taken on more responsibilities and they have become increasingly strapped for funds since public financial support has waned. Such financial shortfalls have made school administrators more willing to sacrifice the long-term health of students for the school's financial gain.

The claim is often made that school commercialism, product marketing for financial gain, is a win-win situation for schools and students.[39] School administrators claim they gain economic resources to maintain a better school environment by being able to buy new band uniforms, athletic equipment, computers, and travel for student groups, just to name a few examples. Unfortunately, the leaders of in-school marketing have been soft drink companies, snack foods, candy, and fast food manufacturers. A recent state study of principals' perceptions of commercialism found that three-fourths (76%) indicated there was very little to no negative publicity concerning commercialism in schools.[40] In other words, they perceived that parents really did not care about commercial companies going into schools and seducing their children into buying specific products for the economic improvement of schools. Furthermore, 57% of the principals claimed even if funds were available to pay for the activities that were funded by commercial activities they would still support these commercial entities involvement in their schools. The principals overwhelmingly (95%) claimed there were no negative effects of commercialism on the objectives of their schools. In addition, the majority (74%) did not believe that corporate advertising in schools unduly influenced students.

A recent study of California school board members' perceptions of factors influencing school nutrition policy found that the majority (56%) of school board members felt inadequately prepared to develop sound nutrition policies.[41] In addition, 51% did not feel adequately prepared to provide community leadership in communicating and supporting school nutrition policies, and 53% did not feel adequately prepared to monitor, review, and revise nutrition policies to ensure effectiveness. [41]

The principals' and school board members' perceptions seem to be inordinately uninformed for youths well-being. Brand awareness begins very early in life. At 24 months of age children can identify various brands, and by six years of age start using brands to identify preferred products.[42] Companies have only two major ways to increase the sales of a product; entice consumers to switch brands or grow a new consumer base. A strategist for a marketing company noted, "One of the reasons kids' marketing is different than marketing to adults is because kids have so many rituals and behaviors that we can latch on to and connect with."[43] Soft drink companies have captive populations available by the millions in schools in which they can create an omnipresence to develop a brand loyalty early in the life of youths. If you were heading a soft drink company, would you want to try to convert a young adult Coke drinker to a Pepsi drinker or would you prefer to gain the brand loyalty of 10 year olds who have another 65 years of purchasing life ahead of them? After all, youths spend about $24 billion of their "own" money each year and directly influence another $188 billion worth of purchases.[44]

Parental influence is the primary determinant of children's dietary intake, yet environmental factors such as school environments whose vending machines and soft drink sales are becoming more commonplace also significantly influence what children consume. In fact, the only other major change in young children's (ages 6–11) diets from the late 1970s to the late 1990s, other than the major increase in soft drinks, has been a tripling of the intake of chips/crackers/popcorn/pretzels.[45] Schools have a responsibility to encourage and model healthy behaviors.[46] Indeed, schools have been delegated the authority to act *in loco parentis*, and thus have the responsibility to act as a reasonable parent in making decisions for the students in their care. Schools have a duty to protect children when they once arrive on school grounds. Furthermore, this physical custody results in the school's duty to provide a healthy environment.[47] Without providing healthier alternatives, such as water or low-fat milk at the price of soft drinks, the widespread availability of unhealthy beverages in the form of soft drinks could be perceived as a violation of this duty.

Today, many school districts have undermined compulsory education laws by entering into contracts giving exclusive advertising and selling of products to students

Figure 1. The Nuts and Bolts of Soda Contracts

Pricing: Unhealtful beverages, such as soda and sugar-added juices, are often priced lower than water or 100% juice. Studies show that price influences student choice.

Commissions: Product sales determine the profitability of the contract. The contracts aim to increase soda consumption. If the school district does not meet its quota, then it does not receive the full allocation. This puts the school district in the position of needing to increase sales of sodas to students.

Contract Length and Opt-out Clauses: Contracts are often established for 5 to 10 years and, in many cases, do not have an "opt out" clause. Therefore, the school district is responsible for reimbursing the soda company for money lost if the contract is broken.

Placement: Contracts can contain stipulations that the machines with soda and other sugary beverages be placed in high traffic areas and at eye level. Healthier beverages are often placed in vending machines below or above eye level and in areas that are less frequented by students.

Control Over Healthy Options: Contracts can contain stipulations that allow soda companies to control the quantity and type of beverages sold. Often, there are limited slots for healthy beverages. As a result, the healthier drinks sell out more quickly. This limits the school district's ability to consistently offer healthier options.

Product Size: Contracts stipulate the size of beverages sold and the amount of commission received by the district on each size. It has become increasingly popular to sell 20 oz. bottles of soda in the majority of the machines – increasing profits as well as calories from beverages of minimal nutritional value.

Lack of Alternatives: Products other than those the soda company offers are not allowed on school grounds or at school events, including sporting events and dances. Contract stipulations may also prohibit donations of competing products.

Advertising: Contracts can stipulate that the soda company may advertise on soda machines, scoreboards, and posters. Some contracts have even allowed soda company representatives to address students at games or school assemblies.

Incentive Items: Contracts can contain provisions that provide the school with free incentive items such as cups, T-shirts, posters, and drink bottles. This provides yet another opportunity for advertising and developing brand name recognition for unhealthy beverages.

Source: California Project LEAN. *Taking the Fizz Out of Soda Contracts: A Guide to Community Action*. Available at: http://www.californiaprojectlean.org/resourcelibrary/genResourceLibraryDetail.asp?CGUID=%7B4B131C41-512D-43A7-A135-6C2B5C262C64%7D&CIID=res_1024&CIV=1&CATNID=1031&CATNGUID=%7BEC63CE25-

within school buildings. These contracts, referred to as "pouring rights contracts" have a variety of attributes that appeal to schools and students alike (Figure 1).[46] School systems usually get upfront money, often in the millions of dollars, get commissions on the amount of soft drinks sold with escalating revenues for greater quantities of soft drinks sold, placement of soft drink machines in high traffic areas, and have lengthy contracts (5 to 10 years) without "opt out" clauses.

Data from the 2000 School Health Policies and Programs Study (SHPPS) found that food and beverage items were sold to students from vending machines or school stores in 98% of secondary schools, 74% of middle schools, and 43% of elementary schools.[48] A more recent state-wide study of Minnesota secondary school principals found that 77% reported having vending machine contracts with soft drink companies.[49] Another study of Minnesota high schools found a median of 11 vending machines, five machines dispensing other beverages, and two snack machines.[50] Health educators/school nurses and others must consider whether students perceive soft drinks and snacks sold in vending machines as implied endorsements from trusted professionals and an institution, their teachers and their school.

These pouring rights contracts, permitting the sale of soft drinks through vending machines, simply offer students empty and excessive calories. Indeed, these soft drinks,

offered in the halls outside school cafeterias, are referred to as "competitive foods."[51] These empty calorie products compete with nutritious foods offered by school cafeterias and undermine the limited amount of nutrition education offered at schools.

To date, no court has had an opportunity to review pouring rights contracts.[52] However, in other court matters involving review of a school district's decision to enter into commercial activity, courts have been hesitant to curb a school board's decision. Certainly, school districts could decline to enter into pouring rights contracts, and could even ban the sale of soft drinks in their schools, as has been done by some school districts and some states.

Curtailing the Sweet Deals

Schools have three options in dealing with soft drinks in schools: minimize the hours during the day when soft drinks are available to students, improve the nutritional quality of beverages available in vending machines and lower their prices to encourage students to purchase them, or have a complete ban on the sale of soft drinks in schools. According to the American Academy of Pediatrics, the preferred method for dealing with soft drinks at school would be to ban them from schools.[53] Such an approach would take a concerted effort by a dedicated group of individuals.[46] This coalition of individuals would hopefully include school district staff such as health teachers, school nurses, and food service directors at a minimum. They would have to be vigilant regarding school board announcements for new contracts with outside agencies. Once a request for a proposal to provide soft drinks was detected, then this dedicated group would need to swing into action. They would need to seek support from local health professionals (e.g., physicians, public health professionals, hospital administrators, etc.); support from PTA members and other parents willing to be vocal regarding their opposition; support from local students who can vocalize their beliefs about why soft drinks do not need to be advertised and sold in schools; and local community leaders need to be brought on board to help make personal contacts with school board members to encourage and educate the school board members to understand the health implications of readily available soft drinks in schools. This coalition would also need to alert the local media regarding the role of soft drinks in childhood overweight and the effect of soft drinks on nutritional changes in youth's diets. This coalition would also need to educate its members and supporters regarding the importance of attending school board meetings and speaking in a professional manner regarding the one or two things they think are most important to convey to the board members.[54] If a coalition is successful at blocking pouring contracts, then they need to be sure to publicly commend the school board members who helped vote down the contract.

The Child Nutrition and WIC Reauthorization Act of 2004 requires all school districts with federally funded school meal programs to develop and implement wellness policies that address nutrition by the start of the 2006–2007 school year.[55] As part of this wellness policy, schools should insist that soft drink companies replace their "foods of minimal nutritional value" with beverages of improved nutritional quality. A new publication, *Making It Happen—School Nutrition Success Stories,* provides evidence that when students are offered healthful foods and beverages as a substitute for "junk foods" they will buy them and schools will make money from selling more healthful options. In fact, of the 17 school districts who reported income data after changing their offerings, 12 school districts increased their revenues and 4 reported no changes to their revenues.[56] Such a change in beverage offerings should also include pricing healthful beverages lower than less healthful beverages. Typically, water in vending machines costs about twice as much as a can of soda.

Additionally, school health services and school health education need to play critical roles in monitoring and educating students regarding being overweight, its prevention, health effects, and how to treat it. Adequate nutrition education might help inoculate children against excessive consumption of soft drinks. The 2000 SHPPS survey found that 55% of schools reported offering nutrition and dietary behavior counseling.[57] Of the schools that offered health education, they averaged about five hours per year on nutrition and dietary behaviors.[58] In addition, 26% of states required height and weight or BMI to be measured, while 61.5% required parental notification of the child's weight assessment. In Massachusetts, parents of overweight children who received health report cards from their child's school which advised them of the weight of their children were more likely to begin seeking help for their overweight child.[59] Child weight information sent home is essential since research indicates that only about one in 10 parents of overweight children perceive their child's weight accurately.[60]

The aforementioned approach to curtailing soft drink consumption in schools is a local approach. It requires coalitions forming all across the United States, partnering with school boards one case at a time. However, schools most likely to be desirous of soft drink money are economically disadvantaged school systems, usually residing in low socioeconomic environments. To the extent that school professionals and parents in such school systems are already overextended putting out "more immediate fires," the less likely they will have the time, resources, and know how to be adequately involved in coalitions to eliminate pouring rights contracts. In other words, the students most likely to be at risk for overweight are the ones most likely to be recipients of pouring rights contracts. Thus, another approach to reducing soft drinks in schools might be to intervene at the state or national levels.

Public education is a state responsibility which state legislatures delegate to state departments of education and their state boards, which subsequently delegate their authority to local boards of education. Thus, to intervene at the state level to eliminate soft drink pouring rights will require

Table 3. Soft Drink Company Top 10 Market Share and Quantity Sold (2004)

Brand (Company)	Rank	Market Share (%)	Cases Sold (millions) *
Coke Classic (Coke)	1	17.9	1,832.7
Pepsi-Cola (Pepsi)	2	11.5	1,179.5
Diet Coke (Coke)	3	9.7	998.0
Mt. Dew (Pepsi)	4	6.3	648.0
Diet Pepsi (Pepsi)	5	6.1	625.0
Sprite (Coke)	6	5.7	580.5
Dr. Pepper (Cadbury)	7	5.6	574.1
Caffeine Free Diet Coke (Coke)	8	1.7	170.0
Diet Dr. Pepper (Cadbury)	9	1.4	140.1
Sierra Mist (Pepsi)	10	1.4	138.8

*Case volume is 192 ounces per case.
Source: Sicher JD. Beverage Digest/Maxwell ranks U.S. soft drink industry for 2004. *Beverage Digest*. March 4, 2005, 2pp.

much larger coalitions with broader connections to state legislators and the governor's office. It will also require greater resources to compete with soft drink companies, and vending machine manufacturers, and those who would perceive themselves next in line to be restricted, no doubt the candy bar and snack foods manufacturers. Such a lengthy and expensive fight would be worth the effort to help improve the well being of an entire state's children.

The most appropriate level for banning pouring rights contracts would be at the national level. However, U.S. congressional members historically have been convinced by soft drink manufacturers, some state legislatures and even local school board members to not permit the United States Department of Agriculture (USDA), under whose aegis school lunch programs and competitive foods fall, to ban soft drink sales and snack food sales at places and times other than inside school cafeterias and at lunch periods.[22] Unfortunately, a nationwide study by the General Accounting Office found that 20% of schools provided access to vended snacks and soft drinks during lunch periods.[61] Once again, this shows that many individuals perceive financial profits as more important than the nutritional well-being of children. The powerful political action committees (PACs) of these companies have considerable resources to bring to bear on such an issue. It has been estimated that in 2004 the soft drink business was worth $65.9 billion, with the top 10 soft drink brands owned by just three companies; Cola-Cola Company, PepsiCo, and Cadbury Schweppes (Table 3).[62] Thus, these three companies will be the leaders in the fight to maintain pouring rights contracts.

Some opponents of pouring rights contracts may perceive their best solution will be through litigation by suing local school board members. However, established case law (e.g., *Block*,[63] *Whittle*,[64] and *Dawson*[65]) suggests that courts perceive the issue needs to be solved by state legislatures and not by the courts. "In sum, as of now, the proper means for solving the problems of pouring rights contracts is not litigation, but legislation" (p.1129).[51]

Regardless of the point of intervention (local, state, or national), the evidence indicates that the "quintessential junk food," soft drinks, needs to be eliminated from school campuses. They are a clear and present danger to the health and well-being of America's children. Furthermore, pouring contracts do not result in new money flowing into the schools from outside companies. In reality, the money comes directly from the pockets of students and parents, many of which cannot economically afford such consumer pressure. When the income from soft drinks is divided up across the entire student body, the per-student/per-year contract is not as lucrative as it may seem initially.

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