



**Childhood Obesity Conference**

**Los Angeles Unified School District**



**Dennis Barrett**  
**Director of Food Services**

---

---

---

---

---

---

---

---

**Outline**

- Historical Background
  - 2002 Healthy Beverage & Snack Motion
  - 2003 Obesity Prevention Motion
  - 2005 Cafeteria Reform Motion

---

---

---

---

---

---

---

---

**About the Motions**

**Healthy Beverage Motion January 1, 2004:**

- Eliminated the sale of sodas and other sugar based drinks at all schools during and up to a half hour after the school day.
- Established a list of approved beverages that could be sold on campus.
- LAUSD was the **first** large school district to implement such a ban.

---

---

---

---

---

---

---

---

### About the Motions

#### Obesity Prevention Motion July 1, 2004:

- Set LAUSD Food Services Branch nutrition standards at higher levels than USDA regulation.
- Limited the amount of fat, saturated fat, sugar and sodium in all foods served on campus during and up to a half hour after the school day.
- Focused on offering second chance breakfast at all schools, improving and broadening nutrition education and improving physical education.

---

---

---

---

---

---

---

---

### About the Motions

#### Cafeteria Improvement Motion December 13, 2005:

- Set goal of increasing student meal participation through various means.
- Created higher district standards for sodium levels and fat content than USDA standards.
- Recommended the use of an integrated Point of Sale system to accurately forecast menu choices.

---

---

---

---

---

---

---

---

### Board Motions translated for LAUSD Food Services Branch.....

#### We needed to:

- Establish specific nutrient standards and portion sizes outside the Federal School Meals Program
- Provide a vegetarian option served daily in the cafeteria
- Increase variety, visibility and accessibility of fresh fruit & vegetables at school sites
- Offer second chance breakfast at all schools within 2 years

---

---

---

---

---

---

---

---

### Highlights of the Nutritional Content of Food Served in the Cafeteria

- 1) Reduction in Sodium Levels: no more than 1100 milligrams of sodium per meal averaged over a one-week period
- 2) Total elimination of trans fat added in the manufacturing process and limiting fat content of entrees to 35 grams of fat.
- 3) Limiting prepared foods and pastries with high fructose corn syrup and other added sugars or caloric sweeteners.
- 4) Immediate limitation of added sugar to less than 7 grams per ounce of cereal

---

---

---

---

---

---

---

---

### Prohibited in LAUSD Foods

- Sulfites
- Artificial red dye #40
- Yellow dye #5
- Added animal fats
- Added peanut oil and derivatives
- Sodium Nitrate
- Tropical oils
- MSG

---

---

---

---

---

---

---

---

### Progress 5 years later

#### Accomplishments

- Increased awareness of nutrition importance in meals served within LAUSD and has provided an environment which students can make healthful food choices for lifelong learning
- Creation of the Cafeteria Improvement Committee
  - ongoing collaboration
- Connected importance of healthy eating and physical activity to increase student achievement
- Focused on increasing meal participation including use of fresh fruits and vegetables
- Have met or exceeded all nutrient requirements to menus

---

---

---

---

---

---

---

---

## Nutrient Compliance & Associated Costs

- Originally costs were higher
- Manufacturing Food Costs have come down since District specifications are in line with compliance of SB12 & SB965
- Competitive food sales more of a burden on schools than nutrient restrictions
- Food cost in general have risen




---

---

---

---

---

---

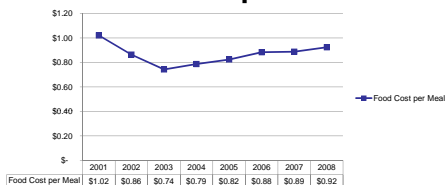
---

---

---

---

### Food Cost per Meal




---

---

---

---

---

---

---

---

---

---

**FOOD SERVICES BRANCH  
Secondary Lunch Menu**

<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>
<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>
<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>	<p><b>OPTIONAL BEVERAGES</b></p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p> <p>1/2 Cup of Milk (1/2 Gallon)</p>

June 2009

\* Items in bold represent breakfast items. † Items in italics represent lunch items. ‡ Items in regular font represent dinner items. § Items in all caps represent special events. ¶ Items in all caps represent special events.

---

---

---

---

---

---

---

---

---

---



### Summary

- Board Motions have provided a good starting point
- LAUSD Board must continue strong focus on healthy lifestyle and choices including emphasis on education and physical well being
- District will continue to focus on the importance of energy (food) to fuels students for engaged and active learning leading to higher testing scores

---

---

---

---

---

---

---

---

## Food & Beverage Sales in California Schools

Gail Woodward-Lopez  
Janice Kao  
Jennifer Shaw  
Wendi Gosliner  
Pat Crawford

The Dr. Robert C. and Veronica Atkins  
Center for Weight and Health  
University of California, Berkeley



Center for Weight and Health University of California, Berkeley

---

---

---

---

---

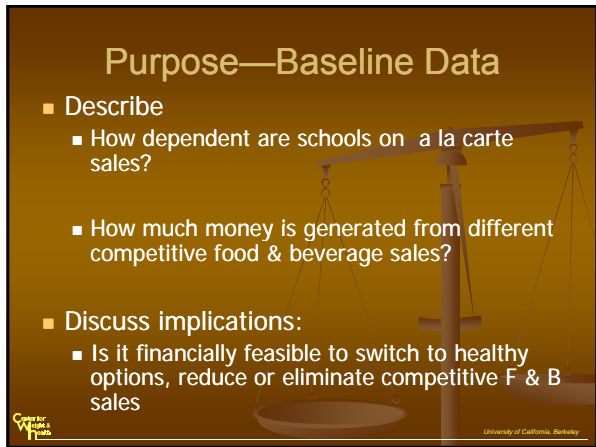
---

---

---

## Purpose—Baseline Data

- Describe
  - How dependent are schools on a la carte sales?
  - How much money is generated from different competitive food & beverage sales?
- Discuss implications:
  - Is it financially feasible to switch to healthy options, reduce or eliminate competitive F & B sales



Center for Weight and Health University of California, Berkeley

---

---

---

---

---

---

---

---

## School Nutrition Standards in CA

SB 19	Foods & Beverages Elementary & Middle	2001 (passed)
SB 677	Beverages Elementary & Middle	July '04 (in effect)
SB 12 & 965	Foods & Beverages Elem., Middle, & High	July '07 (in effect)



Center for Weight and Health University of California, Berkeley

---

---

---

---

---

---

---

---

### CA Competitive Food Standards

**SB 965 – Allowed Beverages**

**Elementary schools:**

- 50-100% juice, no sweeteners
- Milk, ≤2%
- Water

**Middle & High schools**

- Same as elementary
- + Sports drinks

**SB 12 – Allowed Foods**

**Elementary schools**

- Nuts, nut butters, seeds, fruits, veggies, eggs
- Dairy and whole grain products:
  - ≤35% calories from fat
  - ≤10 % calories from saturated fat
  - ≤35% weight from sugar
  - ≤175 calories per serving

**Middle & High schools**

**Entrees:**

- <36% calories from fat,
- ≤400 calories

**Snacks:**

- 35/10/35
- ≤ 250 calories

---

---

---

---

---

---

---

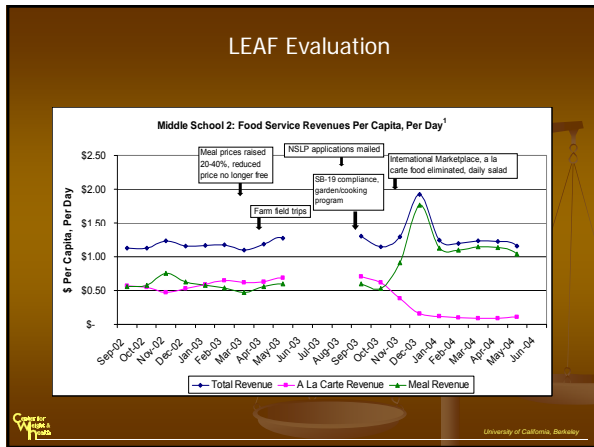
---

---

---

---

---




---

---

---

---

---

---

---

---

---

---

---

---

### Methodology

- 12 HEAC schools (6 middle, 6 high)
- 24 SWDP schools (8 elem., 8 middle, 8 high)
- 56 RWJ High Schools
- Baseline data collected prior to program implementation: 2004-5, 2006-7, or 2007-8
- Revenues, expenditures and/or profits from school food service and other competitive venues for 1 full school year

---

---

---

---

---

---

---

---

---

---

---

---

## Average FRP Enrollment

- HEAC: 74, 63% (range 39-88%)
- SWDP: 54, 53, 43% (range 12-93%)
- RWJ: 39% (range 1-93%)

---

---

---

---

---

---

---

---

## School lunch participation by FRP-enrolled students is not saturated at most schools

Percent of eligible students participating in free/reduced price lunch

	HEAC	SWDP	RWJ
Elementary		79% (65%-95%)	
Middle	53% (27%-86%)	60% (47%-92%)	
High	43% (28%-57%)	50% (36%-70%)	43% (20%-75%)

Center for  
Wicked  
Paths

University of California, Berkeley

---

---

---

---

---

---

---

---

## School lunch participation by non-FRP eligibles not saturated at most schools

Percent of non-FRP students participating in full price lunch

	HEAC	SWDP	RWJ
Elementary		41% (26%-54%)	
Middle	12% (2%-26%)	20% (8%-48%)	
High	6% (2%-12%)	12% (2%-41%)	11% (0.1%-60%)

Center for  
Wicked  
Paths

University of California, Berkeley

---

---

---

---

---

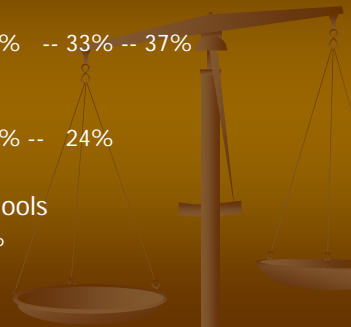
---

---

---

What percent of food service revenues come from a la carte sales at in California Schools?

- High schools
  - Averages: 35% -- 33% -- 37%
  - (range 5-49, 0-65)
- Middle schools
  - Averages : 14% -- 24%
  - range 0-26, 0-50)
- Elementary schools
  - Average: 1%
  - (range 0-5%)




---

---

---

---

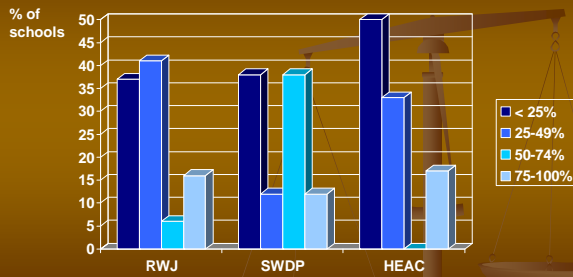
---

---

---

---

Most High Schools are not highly dependent on a la carte sales




---

---

---

---

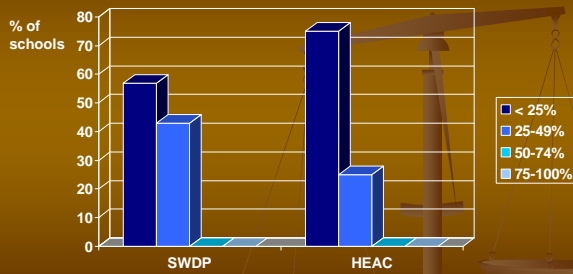
---

---

---

---

No Middle Schools are highly dependent on a la carte sales




---

---

---

---

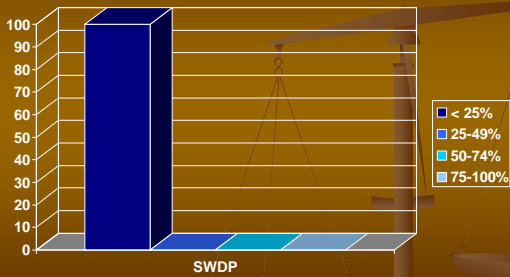
---

---

---

---

### Elementary Schools are not dependent on a la carte sales



Center for  
Welfare  
Studies

University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

### FRP enrollment is significantly associated with per student food service revenues but % ala carte revenues is not (n=55)

Association with yearly food service revenues per student (Adj R-sq=0.28)

	Parameter estimate	P-value
% FRP enrolled students	1.99	<.0001
% of revenues from al a la carte	0.59	0.174

Center for  
Welfare  
Studies

University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

### Food Service Profits at HEAC schools vary from negative to slightly positive

	Total profit*	Profit per student*
	Mean, range	Mean, range
Middle Schools (n=6)	\$10,596 (\$113,616) - \$71,842	\$16.20 (\$72.00) - \$59.40
High Schools (n=4)	\$15,296 (\$95,893) - \$79,823	\$4.95 (\$46.80) - \$34.20

\* Profits are probably overestimated due to incomplete expenditure data

Center for  
Welfare  
Studies

University of California, Berkeley

---

---

---

---

---

---

---

---

---

---



## Competitive food and beverage sales at SWDP elementary schools

Average yearly (180 days) per student figures:	Mean, range
School store profit	(n=0)
Vending machine profit	(n=0)
Total reported non-foodservice profit	\$3.02 (n=1)
Foodservice a la carte revenues	\$4.57 \$0.32-\$7.93
<i>FS profit, assuming 25% profit margin</i>	<i>\$1.14</i> <i>\$0.08-\$1.98</i>



University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

## Average profit per vending machine

	Mean, range	
	Middle schools	High schools
Beverage vending machines	\$375 \$253-\$1140	\$373 (\$5,125) - \$884
Food vending machines	N/A	\$965 \$613-\$1,720
All reported machines <i>Some did not specify whether machines were foods or beverages</i>	\$550 \$190-\$1,769	\$970 (\$5,125) - \$11,393



University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

## Most Common Beverages Offered

HEAC 2004-5	RWJ 2006-7	SWDP 2007-8		
High	High	High	Middle	Elementary
Soda	Sports drinks	Sports drinks	Water	Milk
Sweetened beverages	Water	Water	Sports drinks	100% juice
Sports drinks	Sweetened juice drinks	Sweetened beverages	100% juice	
Water	100% juice	Soda	Milk	
100% juice	Sweetened coffee/tea	100% juice	Soda	
Milk	Milk drinks	Milk	Sweetened beverages	



University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

## Most Common Foods Offered

HEAC 2004-5	RWJ 2006-7	SWDP 2007-8		
High	High	High	Middle	Elementary
Chips	Cookies/ pastries	Baked chips	Baked chips	
Candy	Chips	Cookies/ pastries	Nuts/seeds	
Ice Cream	Entrees	Crackers/ pretzels	Cookies/ pastries	
Cookies	Candy	Snack bars	Snack mix	
Hot entrees	Snack bars	Nuts/seeds	Crackers/ pretzels	
Pastries	Baked chips	Snack mix	Fruits/veggies	



University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

---

---

## Adherence to Food and Beverage Standards

Studies	Date	Beverage Adherence	Food Adherence
HEAC (baseline)	04/05	44%	23%
RWJ (Baseline)	06/07	64%	41%
HEAC/RWJ (mid/endpoint)	07/08	78-71%	67-66%
SWDP (baseline)	07/08	85%	63%

---

---

---

---

---

---

---

---

---

---

---

---

## Conclusions

- High schools are the most dependent on a la carte revenues but only a minority are highly dependent on a la carte sales.
- The financial health of school food service appears to be more dependent on meal sales than on a la carte. Meal sales correlate with % FRP enrollment.
- At most schools there is room to increase both cash & reimbursed meal sales.
- Revenues from competitive sales are greatest for food service a la carte but meal sales could compensate for reductions in a la carte sales as long as meals are not being produced at a loss.
- With a few exceptions, profits at most other competitive venues, especially vending machines, are relatively modest.
- Both pending and actual legislation had influenced product mix but had not yet produced a healthy selection



University of California, Berkeley

---

---

---

---

---

---

---

---

---

---

---

---

## Challenges

- School-level expenditure data not readily available from food service
- Profits not calculated separately for a la carte
- Student stores do not maintain separate accounting for food and non-food sales.
- Student stores do not maintain separate accounting for operating expenses and how they spend their
- Because so many different groups on school campuses sell food it is hard to get the complete financial picture



University of California, Berkeley

---

---

---

---

---

---

---

---

## Therefore need to.....

- Develop simple accounting systems that allow these venues to monitor their revenues and profits
- Support schools, especially those with low FRP enrollment, to increase meal sales in order to reduce dependency on a la carte
- Consider revising competitive food and beverage guidelines based on recent study findings
- Consider food-based standards for competitive foods



University of California, Berkeley

---

---

---

---

---

---

---

---

## We would like to thank.



### Our partners:

- Samuels and Associates,
- California Project LEAN,
- California Dept of Education,
- California School Nutrition Association
- Participating schools and Nutrition Services Departments

### Our funders:

- Robert Wood Johnson Foundation
- United States Dept. of Agriculture
- California Endowment



University of California, Berkeley

---

---

---

---

---

---

---

---

## The Institute of Medicine Committee on Nutrition Standards for the National School Lunch and Breakfast Programs

5<sup>th</sup> Biennial Childhood Obesity Conference

June 11, 2009

Mary Kay Fox  
Mathematica Policy Research



MATHEMATICA POLICY RESEARCH  
Mary Kay Fox, PhD

---

---

---

---

---

---

---

---

### Overview of Committee's Task

- Sponsored by USDA's Food and Nutrition Service (FNS)
- Focus on reimbursable school breakfasts and lunches
- Recommend new standards that:
  - Are practical and economical
  - Reflect current nutrition science
  - Increase availability of key food groups
  - Enhance programs' ability to meet nutrient needs, foster healthy eating habits, safeguard health

MATHEMATICA POLICY RESEARCH  
Mary Kay Fox, PhD

---

---

---

---

---

---

---

---

### Committee Schedule

- First meeting June, 2008
- Public forum July, 2008
- Phase I report issued December, 2008
  - Describes proposed approach and guiding principles
- Public forum January, 2009
- Phase II (final) report expected Fall, 2009

MATHEMATICA POLICY RESEARCH  
Mary Kay Fox, PhD

---

---

---

---

---

---

---

---



### Current Standards for Food-Based Menu Planning

<p><b>Traditional</b></p> <ul style="list-style-type: none"> <li>▪ 8 fl. oz. Milk</li> <li>▪ 1/2–3/4 cup Fruit/Veg</li> <li>▪ 1.5–3 oz. Meat</li> <li>▪ 8–10 servings Grain per week</li> </ul>	<p><b>Enhanced</b></p> <ul style="list-style-type: none"> <li>▪ 8 fl. oz. Milk</li> <li>▪ 3/4–1 cup Fruit/Veg</li> <li>▪ 1.5–2 oz. Meat</li> <li>▪ 10–15 servings Grain per week</li> </ul>
---	---

 McGraw-Hill Research, Inc.

---

---

---


---

---

---


---

---



### MyPyramid Recommendations vs. Current Food-Based Standards

	MyPyramid	Traditional	Enhanced
Fruit (cup)	2/3	NS	NS
Vegetables (cup)	1	NS	NS
<b>Total Fruit/Veg (cup)</b>	1 2/3	3/4	1
<i>Types of Vegetables</i>		NS	NS
<b>Total Grain (oz)</b>	2.6	1.6	3
Whole Grain (oz)	1.3	NS	NS
Milk (cup)	1	1	1
<b>Meat/Bean (oz)</b>	2.17	3	2
Oils (tsp)	2.33	NS	NS
Discretionary Calories	121	NS	NS

 McGraw-Hill Research, Inc.

---

---

---


---

---

---


---

---



### Current Nutrient-Based Standards

- Based on 1989 RDAs
  - Calories
  - Protein
  - Vitamins A and C
  - Calcium and Iron
- Based on 1995 Dietary Guidelines
  - Total fat and saturated fat
- Recommended but not required
  - Decrease cholesterol and sodium
  - Increase fiber

 McGraw-Hill Research, Inc.

---

---

---

---

---

---

---

---

**Criteria to be Applied in Developing New Standards**

Recommendations for new standards will:

- Be consistent with Dietary Guidelines and Dietary Reference Intakes (DRIs)
- Reduce apparent inadequacies
- Reduce excess intakes of food, calories, nutrients
- Be based on most commonly used grade groupings
- Simplify menu planning and monitoring
- Recognize variation in food service operations
- Be sensitive to program costs

© 2009 National School Nutrition Association  
Nutrition Research, Inc.

---

---

---

---

---

---

---

---

**Proposed Steps for Developing New Standards**

- Use national survey data to assess current food and nutrient intakes of school-age children
- Set nutrient and food group targets
  - Based on DRIs, Estimated Energy Requirements, and MyPyramid Food Intake Patterns
- Develop sample menus
- Assess implications for cost, markets, other factors
- Adjust as needed

© 2009 National School Nutrition Association  
Nutrition Research, Inc.

---

---

---

---

---

---

---

---

**Assessing Cost Implications  
General Guidelines**

- No requirement that recommended changes be cost-neutral
- Goal is to be cost-conscious, keeping costs as close to current levels as possible (adjusted for inflation)
- Primary focus is on food costs
- Labor and administrative costs will be considered in more qualitative manner

© 2009 National School Nutrition Association  
Nutrition Research, Inc.

---

---

---

---

---

---

---

---

**Assessing Cost Implications  
Proposed Approach**

- Identify representative baseline menus
  - SNDA-III data
- Determine food costs for baseline menus
  - Existing FNS national dataset
  - Adjust for inflation
- Determine food costs for new menus
- Compare

INFORMED ACTION  
Policy Research, Inc.

---

---

---

---

---

---

---

---

**For More Information**

- Phase I Report is available on IOM website
  - [www.iom.edu](http://www.iom.edu) – Food and Nutrition
  - Report on Nutrition Standards for “National School Lunch and Breakfast Programs” *not* “Foods in Schools”
  - Free Executive Summary
- Use “provide feedback” link to provide your comments/thoughts
- Look for Phase II Report in Fall, 2009

INFORMED ACTION  
Policy Research, Inc.

---

---

---

---

---

---

---

---