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The Food Industry Center
UNIVERSITY OF MINNESOTA

TFIC NEWSLETTER

University of Minnesota

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The Obesity Epidemic: What to Do?

By now all have probably heard, perhaps more than we wanted to, that we are literally facing an obesity epidemic with some two-thirds of Americans overweight or obese. The consequences for our health and the impacts on health care costs cannot be ignored. If there is an obesity epidemic, the really important question is what to do.

Combatants

At the recent conference on "Steps to Healthy Living" at the University of Minnesota, it became clear there are three general attitudes about this epidemic. The first of these three attitudes can be identified as combative; these people believe the food industry is to blame and propose major government regulation. Other combatants plan to sue the food industry as "the next tobacco." In general, it does not seem reasonable to blame the food industry for obesity, for making food inexpensive, convenient, and widely accessible, except perhaps for certain specifics such as aggressively marketing to children. However, this said, food companies must be willing to contribute to the solution, if we are to make progress against overweight and obesity.

Fitness Zealots

The second attitude belongs to the fitness zealots. They believe that individuals must make fundamental changes in their diets and physical fitness regimes in order to make progress against excess weight and obesity. Most doctors and counselors find getting patients to make major lifestyle changes, whether quitting smoking or losing weight, highly frustrating. Mass marketed diets abound, however, a study by Tufts University compared four popular diets and found no differences in weight loss over the course of a year between the Atkins, Ornish, Weight Watchers and the Zone weight-loss programs. They all work because they reduce caloric intake; the real issue is whether the dieters will be able to maintain their lower weight and improve their nutritional balance and long-term health.

We Can Do It!

The third attitude is "we can do it." These people are already making a change and are doing it in a way that fits established lifestyles. One example of a food company taking meaningful action to help their customers eat healthier is PepsiCo's Frito Lay. With over 57% of the U.S. snack food market, they are now selling reformulated products with lower calories and fat and no trans-fats. Some retail stores are offering low-carb shelf labels to help consumers find these foods, as well as low-carb cooking classes, and low-carb foods in their deli's.

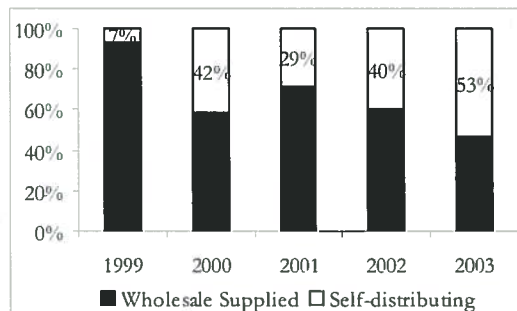
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Supermarket Panel Goes On-Line

The Supermarket Panel went on-line in 2003. We solicited participants from 2000 supermarkets across the country and this year 391 responded. Sixty-nine percent responded on line; we sent paper copies to those who preferred to respond on paper. The stores are representative of the 32,000 supermarkets in the U.S. and compare to the median characteristics reported in *Progressive Grocer*. Sixty-nine percent of the panel was participating for at least the second year, indicating they find real value in the Benchmark and Annual Reports. Compared to earlier years, a larger proportion of the new stores in 2003 are from companies that have more than 750 stores (30% in 2003, 7% in 2002). Twenty-seven percent of the new stores in 2003 were single stores. We believe this is not just an artifact of the panel but rather represents a bifurcation of retail stores into large chains and smaller niche stores that serve local market needs.

With four years of data we can now look at some of the trends in adoption of information technology and supply chain practices. A trend towards more self-distributing stores is obvious in the chart below.

Figure 1: Self Distributing Stores



Tracking the adoption of electronic technology and supply chain practices is one of the long-standing strengths of the Supermarket Panel. Adoption of technology use increased in 2003 compared to 2002 for:

(continued on page 2)

Up Coming Events

Program Leadership Board Meeting
March 18-19, 2003
Hosted by ACNielsen

Food and Health Seminar Series
Lois Quam, CEO - Ovation
February 24, 2004
McNamara Alumni Center

CO-DIRECTORS' NOTEBOOK

Mad Cows and vCJD: How Important?

It was inevitable! At least one case of BSE (Mad Cow Disease) was going to be found in the United States. It happened December 23, 2003, just 8 years after the British Health Secretary announced that BSE had spawned a new human disease: a variant of Creutzfeldt-Jakob disease (vCJD). This fact was debated, denied, debunked. But it now seems that the connection is scientifically defensible. If humans eat neural tissue such as brain and spinal cord parts of an infected cow they could experience the transmission of vCJD to their bodies. These tissues could, in former days, appear in hamburger, sausages and other mixed meats. The full impact of BSE on human health is still to be discovered. The source of BSE in cattle is believed to be feed that contains the remains of infected cattle. It was common to include ground or rendered parts of dead cattle or sheep in the feed of the next generation of cattle until 1988 in Britain, and until 1997 in the U.S.

How big a problem is this? The Federal Reserve Bank of Kansas City estimates that the economic impact on the U.S. beef industry will be between \$3 and \$4 billion in the first quarter of 2004. About 10 percent of U.S. beef is exported



and virtually all importers have banned U.S. beef. Japan has taken over 35% of these exports. Within the U.S. losses at the wholesale and retail level are estimated to reach \$1-\$2 million. However, as of the middle of January, retail sales had not fallen substantially.

In terms of risk to cattle or consumers the numbers are small. Out of 19 million cattle tested in Europe last year 4200 cases of mad cow disease were discovered. In Japan, there were only 9 cases out of 1.2 million cattle tested in the last three years. The U.S. tests one out of every 1700 cattle slaughtered and one case has been found. To this date, only 139 in England have died from vCJD. A person is 5 times more likely to be killed by a lightning bolt. One is more likely to die from a stroke or heart attack linked to obesity.

One of the greatest dangers of this recent discovery in the U.S. is that consumers will lose confidence in their government regulatory agencies. By declaring beef to be safe and appearing to defend the practices of the cattle industry (even if they are right), food safety agencies risk losing consumer and voter confidence if and when human cases of vCJD appear in the U.S. Given a long standing reputation of U.S. federal food agencies for protecting the safety of our food supply and the health of consumers, losing consumers' confidence would be a tragic event.

Supermarket Panel -- continued from p. 1

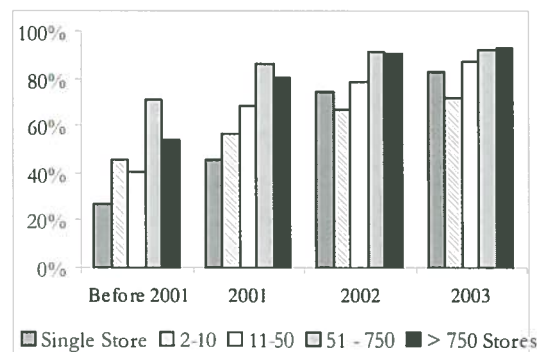
- **Intranet/Internet links** to corporate headquarters and/or key suppliers –largest increase in independent retailers – from an average of 56% to 71%.
- **Receiving electronic invoices** from primary warehouse – largest increase in single stores – up from 25% to 35%.
- **Scan based trading** – up an average of 16 percentage points across the board, with a 38 percentage points increase in stores in largest group (>750 stores).
- **Frequent shopper/loyalty cards** increased from 40% – 75% in Superstores but fell off in all other formats. (A superstore is a retail food store with >40,000 sq. ft., bagging, and no pharmacy.)

High adoption of supply chain technology management is associated with stores that are newer, in larger groups, with higher weekly sales, more labor hours, higher sales per transaction, and slightly higher gross profit. A high score on the supply chain index significantly increases sales per labor hour but is not important for other performance measures.

Adoption of Internet/Intranet technology happened later for single stores, but by 2002 the percent of single stores who had adopted this technology surpassed that of small chains (see chart below). It is an essential ingredient to the adoption of other information technology methods and will be essential for all stores who want to be ready for radio frequency identification tags in the future.

The annual report for the 2003 Supermarket Panel will be available February 15, 2004 on disk for \$25 and on our website <http://foodindustrycenter.umn.edu>.

Figure 2: Internet/Intranet Adoption



The Obesity Epidemic: What to Do? -- Continued from p. 1

There are community-based activity programs like "Shape Up America" or "America On The Move," which is based on the successful "Colorado On The Move" program. "America On The Move" asks people to walk 2,000 additional steps above their current daily level, using a pedometer to measure steps. In addition, participants are asked to eat 100 fewer calories at some point during the day, equivalent to three bites of a hamburger. The program is community based, so participants receive support and encouragement through workplaces, schools, and community centers. It offers hope through small steps, realistic goals, and peer support.

Supermarkets

Supermarkets could be excellent entry points/support centers for community based programs like "America On The Move." They are one of the most visited places in any community. The program could be promoted with the help of food manufacturers. One retailer already issues pedometers to customers so they can measure their steps while shopping in the store. There could be incentives and rewards for shoppers who meet certain program goals. Pedometers may be given away to loyal customers. Involvement in the program might also strengthen customer loyalty, and provide community goodwill.

Retailers can also marry the quest for convenience to the ease of choosing foods with lower calories and higher nutritional content. Good labeling and information help the "can-do" shopper. Providing lower calorie foods in the deli and bakery where the store has control over food ingredients and labeling might help. *Subway* is a leading example of success in this kind of activity. Making small portions available helps the cause. And, given the clout that retailers now have with manufacturers, especially on private label products, retailers can negotiate lower calorie, smaller portions, and truth in labeling from their suppliers. Retailers have an opportunity to play a unique and positive role in addressing the obesity crisis.

Recent Ph.D. Graduate: Lisa Mancino

Lisa Mancino's passion is understanding consumers' food choices and why they often seem to conflict with the desire for good health and a vigorous life. In her Ph.D. Dissertation titled "Americas' Food Choices: the Interaction of Information, Intentions, and Convenience" she used concepts from the "new" behavioral economics to examine American's individual food intake data including where they got the food and the time of day it was eaten. She found that those who had longer intervals between meals, skipped breakfast, and ate "meals" (as opposed to snacks), were more likely to consume more calories at each eating occasion and had lower quality diets. The more meals



eaten in restaurants or fast food places the higher was the caloric intake overall. A take-away lesson is to "eat like a bird," that is, eat often and in small quantities. Also planning ahead and preparing more meals at home leads to eating fewer calories overall. It reduces the last minute impulse eating that comes with time pressure and hunger from waiting too long to eat.

An early publication of her work appeared in CHOICES, Fall 2002, titled "The Road to Not-So-Wellness. CHOICES is available from the American Association of Agricultural Economists, (<http://www.AAEA.org>).

Lisa is now an economist with the Economic Research Service, USDA, Diet, Safety, and Health Economics Branch in Washington, DC (<http://www.ers.usda.gov>). She is teaming up with other graduates from TFIC and the UMN to further investigate the economics of eating behavior and food habits. Don't be surprised to see her name on future USDA publications.

Classroom Corner

Case studies, site visits and debates about ethics are part of our courses that focus their attention on food marketing, distribution, supply chain management, and financial responsibility. In this section of the newsletter we will be bringing you brief summaries of activities and highlights of several undergraduate courses that prepare students to be better employees in food companies or companies that deal directly with various segments of the food supply chain. This newsletter is featuring the **Economics of Food Marketing (APEC 4451 & 5551)** taught by Jean Kinsey and Ben Senauer.

This course, taught fall semester, focuses on preparing students to work in teams, to write clearly, and to grasp the nature of the food distribution system and how marketing fits into the success of product sales and influences consumers' lives. Three distinct projects, each requiring a team presentation and an individually written report, enable students to learn to work with others, to produce a product, and to practice their writing skills. In the first project they design a "new food product" and construct a marketing plan. In the second project they write a mini-case study

on one of two food companies after hearing a speaker from the company. The two companies this year were Rainbow Foods and General Mills. This project also teaches Internet research skills, interview skills and demand creativity. For practice, the class reads and discusses case studies on Wal-Mart and Tesco. The third project involves working in teams to discuss and present the ethical issues involved in food marketing. This year the issues included animal welfare, obesity, and labeling of genetically modified foods. A case study on Odwalla Foods raises the issues of food safety and responsible reaction to recalls.

Outside speakers bring the real world to the students. Speakers this year were Dale Riley, General Manager of Rainbow Foods, Diane Harper, Director, Big G Consumer Insights, General Mills, J.T. Mega of J.T. Mega foodservice advertisers, and Dennis Degeneffe, marketing researcher working for TFIC.

Our goal is to provide students with both hard and soft skills (analytic and people skills) that will lead to a successful career and to provide productive employees for firms whether or not they are in the food industry.

DID YOU KNOW?

Meals out: Eleven percent of the 281 meals eaten away by the average person in the U.S. each year are breakfasts. Thirty-eight percent or 107 meals are for lunch while 143 (51%) are for dinner. Only 42% of those meals are eaten on-premise. The annual per capita expenditure on meals out is \$846 with the average per-person check being \$4.88. (Natl. Restaurant Assoc. www.restaurant.org/research/ind_glance.cfm)

Global Obesity & Hunger: On a global basis 8.2% of people are obese, that is, they have a body mass index of more than 30. At the same time, 5.8% have a body mass index of less than 17, that is, they do not have enough to eat. (www.who.int/nut/db_bmi.htm) While there are an estimated 8 million people (13.6% of the world's population) who are undernourished, the balance is tipping. In 1970 25% of the world's population was undernourished. As incomes rise, trade expands, and urban lifestyles develop, hunger can turn to over eating before we notice. (Runge, Senauer, Pardey & Rosengrant, 2003)

Who's to Blame? An AC Nielson survey last summer found that 86% of respondents think

parents have a responsibility for children's obesity, 60% think fast food restaurants bear some responsibility and 18% think food manufacturers are a contributing factor. (The Food Institute Report, 76:33, Aug. 18, 2003)

Imported Food: Imported food made up more than 11% of the total food consumed in the U.S. in 2001. This is up from 8% in the early 1980s. The food categories with the highest percent of imported food are fish and seafood (68%), fruits, juices and nuts (21.4%), and vegetable oils (15.5%). (The Food Institute Report, 76:31, Aug. 4, 2003)

Imported Food Facilities Need to be Registered! Under the Bioterrorism Act FDA has issued interim final regulations effective 12/12/03. Any domestic or foreign food facility that manufacturers/processes, packs or holds food for human or animal consumption in the U.S. is required to register the facility with FDA unless the facility is exempt. Exempt facilities include retail food stores and restaurants. For more information see www.fda.gov/furl or www.usafoodagents.com. (The Food Institute Report 76:41, Oct. 13, 2003)

Top Rated Supermarkets in the U.S.: A nationwide survey of consumers by *Consumer Reports Magazine* found that the top four rated supermarkets are: Raley's, Wegmans, Publix, and Harris Teeters. Hy-Vee and H-E-B tied for fifth. The top stores rose above the average by excelling on checkout speed, service, and cleanliness. (The Food Institute Report 76:32, Aug. 11, 2003)

• QUIZ:

Best Food Companies to Work For?

Fortune Magazine (1/12/04) published "the best companies to work for" based on what employees themselves have to say about their workplaces. Some 46,526 employees were selected to participate in 304 companies. This year 9 food companies were listed among the top 100. Can you match the companies (here in alphabetical order) to their rank (1, 9, 34, 47, 49, 64, 75, 81, and 98)? General Mills, Monsanto, Proctor and Gamble, Publix Supermarkets, Smucker (J.M.), Starbucks, Ukrop's Supermarket, Wegmans Food Markets, and Whole Foods Market.

#1 Smucker (J.M.), #9 Wegmans, #34 Starbucks, #47 Whole Foods, #49 Monsanto, #64 General Mills, #75 Ukrop's, #81 Proctor & Gamble, #98 Publix.

Answers:

Working Paper 04-01: Does Food Safety Conflict with Food Security?

This paper concludes by saying no, food safety and security reinforce each other. It combines food safety and food security into the concept of "safe food consumption." Unsafe food consumption occurs when food contains known substances that lead to short or long term illness or death (botulism) and suspect substances that are believed to lead to delayed diseases (pesticides). It also occurs when hunger or over eating contribute to long-term illness and shorter life expectancy (obesity).

Obesity is not a problem unique to westernized countries. On balance 8.2 percent of the world's population is obese while 5.8 percent are underweight. The magnitude of these dual food and diet issues clearly poses new challenges for global food policy and food security.

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