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UNIVERSITY OF MINNESOTA

# The Food Industry Center

2009–2010 ANNUAL REPORT





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**The Food Industry Center**  
UNIVERSITY OF MINNESOTA

## A Note from the Director



Jean Kinsey

A hallmark of the Center's work over the past 15 years has been the quest to stay abreast, if not ahead, of current food industry activities and issues. We do this by providing expertise in public food discussions, by hosting informative events for the food community, and by conducting our own primary research. This year is no exception.

This past year, the Center provided valuable economic insight in two food policy discussions. TFIC researchers evaluated the adequacy of the federal reimbursement rate of the National School Lunch program in comparison to the rising cost of school lunches; providing important input on the school lunch policy discussion at USDA and in Congress. I personally testified before the House Committee on Agriculture about consumer concerns over food prices, food safety, and a perceived misalignment of subsidies for agricultural commodities used for animal feed rather than fruits and vegetables for human food. This line of argument was expanded by other witnesses worried about relentless obesity, especially among children and the poor.

The ongoing continuous tracking of U.S. consumers' confidence in the safety of the food system epitomizes the Center's unique body of research around the work of food safety and protection. This project enables us to build a time trend – an index – that is correlated with counts of media stories about food safety issues and recalls. With consumer confidence at an all time low, the indexing project enables us to learn about consumer behavior and sales when confidence drops and rises again. Another unique contribution to food safety studies is the Center's series of three case studies about food recalls. These case studies and corresponding learning modules may be used without cost and are especially suitable for undergraduate courses in food marketing and management.

It was also the year of "local." Not only did we have a networking conference on "local" foods, but our incoming Director, Dr. Robert P. King, coordinated and published a major study on supply chains for local foods. Defining what "local" means to consumers is illusory, but it most often refers to food that is fresh, better tasting than food that has traveled a long way, or been stored for a long time. It also refers to seasonal foods we relish for their superior taste like tomatoes, sweet corn and melons in a Minnesota summer. The concept of local food is an old one, but the new definitions are evolving and TFIC will continue to engage members of the public and the food industry in the discussion about how consumer demand for local foods will affect the food industry.

Much of our time spent with the food community this year focused on the importance of relationship building in the food industry. Our Spring Symposium highlighted the way social media is changing relationships between food companies and their consumers. A key company strategy is to use social networks to get your customers and fans to say complimentary things about your product and promote it for you through their social networks. The use of the "word of mouth" technique, with the help of the internet and smart phones, makes this form of marketing powerful but also hard to control. The Food Industry Center's own relationship with the National Grocers Association, provided University students with opportunities to participate in the NGA annual convention in Las Vegas by making presentations and moderating sessions. Students always come back enthused about newly discovered career opportunities and the connections they made, demonstrating the importance of University-industry partnerships in the education of leaders for tomorrow.

This is my last year as Director of TFIC. I retire from the University on August 31, 2010. I want to thank the TFIC staff for their excellent and dedicated work: Lisa Jore, Associate Program Director; Dennis Degeneffe, Research Fellow; and Koel Ghosh, Research Associate. The new Director, Dr. Robert P. King and Associate Director, Dr. Timothy Beatty are very talented and dedicated professors. I only ask that the followers and supporters of TFIC give them your strong support as you have to me over these many years. For my reflections about the food industry and the life of a center director see the Spring 2010 TFIC Newsletter *Director's Note* at [foodindustrycenter.umn.edu/Vol15No1.html](http://foodindustrycenter.umn.edu/Vol15No1.html).

Jean Kinsey  
Professor of Applied Economics and  
Director of The Food Industry Center





## OUR MISSION

The Food Industry Center will develop leaders for tomorrow's food industry. Through research, educational programs, and industry collaboration, it is a leading source of knowledge on how food reaches consumers efficiently and contributes to safe and healthy lives.

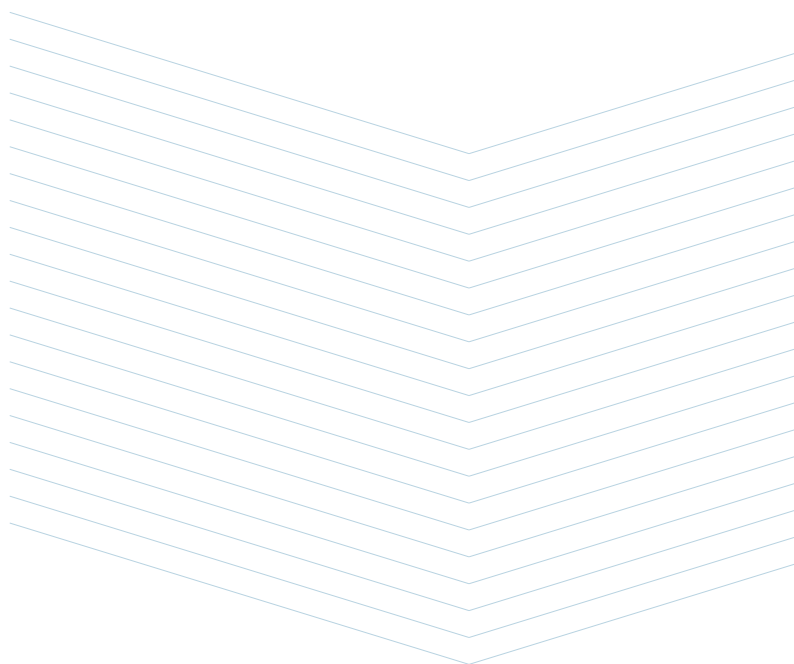


## About Us

**The Food Industry Center (TFIC)** was founded in January 1995 at the University of Minnesota as one of several Alfred P. Sloan Foundation Industry Studies Centers and the only one that studies the food industry. TFIC has an illustrious fifteen year history of conducting primary research on the food industry and offering forums on current industry topics and best practices. Originally established as *The Retail Food Industry Center*, the Center changed its name to *The Food Industry Center* in 2001 to accurately portray the breadth of food industry studies the Center conducts.

TFIC is a national collaboration of scholars made up of faculty, students, and industry leaders from across the nation and the world who address the issues of an **efficient, ethical, healthy, and safe food system**. The Center addresses cross-sector issues through developing and disseminating data and analysis focused on how food moves from farm to fork.

The Center is advised by three boards – a Board of Executives that provide their senior level strategic guidance, the Program Leadership Board – our industry working board whose members contribute their practical experience to our research and programs, and an Academic Leadership Board made up of faculty contributors from the College of Food, Agricultural and Natural Resource Sciences and the Carlson School of Management.



## An Academic Career in Review



Jean Kinsey

After 15 years as the founding director of The Food Industry Center, Jean Kinsey announced her retirement in 2010. Since the Center's inception in 1995, Jean has provided leadership for primary research on the food industry and food system, has overseen the procurement of 16 grants, and has cultivated many relations with food industry professionals in order to expand knowledge on the food industry. During her tenure, she has conducted research that quantified the impact of the retail food industry, provided expertise on consumer buying behavior to the Institute of Medicine's Committee reviewing WIC food packages, initiated primary research on protecting the food supply from intentional contamination after the 2001 terrorist attacks, and contributed testimony to the House Agricultural Committee on rising obesity rates to inform the 2012 Farm bill.

Jean Kinsey joined the faculty of the Department of Applied Economics at the University of Minnesota in 1976. She has taught numerous courses focused on consumer, behavioral, information, welfare, food marketing, and household economics. She has also served as the Applied Economics Director of Graduate Studies and the Director of Graduate Studies for the University's Master of Liberal Studies Program. Over her University career, she has advised 44 Ph.D. students, 43 Masters students, and over 200 undergraduates. Jean's research has contributed significantly to knowledge on topics ranging from credit card use and law, economic impact of Indian casinos, consumer buying and consumption patterns, hunger and nutrition, food accessibility in urban neighborhoods, and food safety and protection. Her research has been published in such prestigious publications as *American Journal of Agricultural Economics*, *Agricultural Economics*, *Encyclopedia of Food and Culture*, *Journal of Food Distribution Research*, *Journal of Agribusiness*, *Journal of Consumer Affairs*, *Journal of Nutrition*, *Food Policy*, and she was the co-author of *Food Trends and the Changing Consumer*.

Since Jean received her Ph.D. from the University of California at Davis in Agricultural Economics, her involvement with the economics and business communities has been extensive. From 1986-87 she was a Resident Fellow at the National Center for Food and Agricultural Policy, and from 1996-97 she chaired the Board of the Federal Reserve Bank of Minneapolis. Jean is a Distinguished Fellow of the American Council on Consumer Interests and of the Agricultural and Applied Economics Association; she was elected president of both associations. She is currently on the Board of Trustees of the International Food Policy Research Institute in Washington D.C. and on the Board of Managers of PJM in Philadelphia, PA.



“I don’t know that anybody has ever counted the number of food companies in Minnesota before, in any rigorous fashion, and we decided to do that...” – Jean Kinsey

—Tom Webb, *Pioneer Press*

“From Cargill to cafes, 2,357 Minnesota companies deal in food”  
March 8, 2010.

## EVENTS & OUTREACH

# Peer Learning at the Fall 2009 TFIC Networking Event

Collaborative learning is a hallmark of The Food Industry Center program. At the Center's annual Networking Event, industry professionals and student learners come together to continue and develop their professional expertise by learning about the most recent food studies research conducted at the University. It also offers an opportunity for students and industry to expand their professional networks and learn from one another as they discuss current opportunities and challenges in the food industry.



Rand Park, Rebecca Monro, and Dennis Degeneffe

Nearly 100 University students and professional participants from seventeen different industry, government, and non-profit organizations gathered on November 10th at Coffman Union for the Center's 4th Annual Networking Event. The cross-disciplinary program on "Local Foods and Consumer Demand" provided economic, food science, and marketing presentations from University researchers offering analysis on the local foods conversation from a variety of perspectives.

The afternoon program began with a presentation on "Supply and Marketing Issues in Local Food and Supply Chains" by Robert P. King, Professor of Applied Economics at the University of Minnesota. King previewed early lessons from a pilot study on supply chains of local food products and the integral role close relationships with supply chain partners play in building a customer base (see page 10). Francisco Diez-Gonzalez, Professor of Food Science and Nutrition, provided an overview of food safety concerns in organic foods in his presentation "Microbial Safety and Risks of Organic and Natural Foods." His research showed that the epidemiological data does not indicate a greater risk of illness in organic foods, not accounting for organic foods smaller market share. Rebecca Monro, Associate Program Director for the Institute of Research in Marketing at the



Katie Baures, Hetvi Damodhar, Catherine Lee, and Melinda Murray

University's Carlson School of Management and Board Member of the Seward Co-op in Minneapolis, MN, compared the co-op and corporate operating models in her presentation "The Cooperative Business Model: Hip Not Hippie." Her observations revealed the impact of local food production in the local economy, noting local farmers who sell directly to consumers receive a larger share of the profit for their food, which in turn gets spent in the local economy. The day wrapped up by featuring four talented Food Science and Nutrition graduate students - Katie Baures, Catherine Lee, Melinda Murray and Hetvi Damodhar presenting their *Mighty Mickeys* product concept of vegetable snacks for kids in the shape of Disney characters. Their idea won top honors at the *Nutritious Foods for Kids* competition at the June 2009 Institute of Food Technologists annual meeting.

The Fall 2009 Networking Conference was sponsored by four of the Center's Sponsoring Member Companies - CHS, Inc.; General Mills; H. Brooks and Co.; and Nash Finch Co. Their sponsorships provided free registration for University students who represented over half of the day's participants. Industry sponsors and participants received valuable access to the University's talented and industry-trained students from the College of Food, Agricultural, and Natural Resource Sciences and the Carlson School of Management who leveraged this occasion to showcase their career opportunities to the students.

Copies of the presentations from the Fall Networking Conference are available online at [foodindustrycenter.umn.edu/pastevents.html](http://foodindustrycenter.umn.edu/pastevents.html).





## Industry's Changing Relationship with its Consumers

“What others say about your brand is so much more powerful than what you can say about it yourself (*The 22 Immutable Laws of Branding*, Reis & Trout, 2002).” In marketing, deploying this word of mouth strategy in an electronic, social media format has become an effective and efficient way of building relationships and engaging with consumers. It was also the theme of this year's TFIC 2010 Symposium on *The Opportunities and Challenges of Social Media* in the Food Industry. Speakers from industry and academia shared observed themes of increased and efficient consumer feedback, consumer self-branding, privacy and data accuracy concerns, and the outcomes of engaging consumers in this instantaneous viral environment.



Greg Zimprich

In his keynote speech, Director of Brand Marketing for General Mills Greg Zimprich, discussed the company's social media strategy of inviting consumers to get involved, interact, and inspire them to share their General Mills experience. His advice – “Pursue (this) relationship with the goal of improving what you do as a company as a result of what you learn from the customer.”

By introducing General Mills products to Consumer Engagement Networks, the subsequent product feedback creates a buzz for a new product, allowing the company to incorporate consumer feedback and discussion (good or bad) into their product marketing and development strategies.

Speakers noted the speed and efficiency with which companies and organizations can interact with their constituents has dramatically

changed. According to Matthieu Geze, President of the Tillbury Corp., the “starving-for-information” foodservice sector now has 330 million fans in foodservice groups on Facebook. David Erickson, Director of e-Strategy at Tunheim Partners noted the increasing interest of people to document their experiences, good or bad, via social media postings in real-time. Craig LeFebvre explained how the FDA used an intermediation strategy to push out information about the 2008 PCA peanut butter recall utilizing YouTube, videos, blogs, webinars, Tweets, widgets and online graphics that drew in 20 million views to their recall database.

Academic researches conveyed their uncertainties and the legal ramifications of industry implementation of social media strategies. Professor Brian Buhr and researcher Jon Seltzer reviewed the Westland/Hallmark beef recall initiated by footage of downed animals on YouTube, leading to the breakdown and eventual ownership changeover of the company. Writing Studies Professor Laura Gurak discussed the viral speed of malicious and misinformation campaigns and raised questions about the longevity of public interest in social media. Law Professor Bill McGeveran discussed the legal pitfalls of this virally interactive medium and noted that concerns around privacy, trademark and unfair competition, persona rights, or consumer protection laws have already been raised. Reflecting on common privacy concerns of social media use, a panel of students and researchers debated whether total privacy is possible, and concluded that if it is put online, its public information.

Each year, the goal of The Food Industry Center symposium is to bring together industry, academia, the public and students to discuss current issues in the food industry. This year's discussion of the opportunities and challenges in the food industry was initiated by The Food Industry Center's Program Leadership Board, ensuring that contemporary industry issues are given rigorous academic analysis and thought leadership.



Social Media Panel Discussion



# TRACKING THE U.S. ECONOMIC RECOVERY

The food industry's consumers are still coping with the effects of the 2008–2009 recession. The status of the consumer's environment was evaluated by the Under Secretary of Commerce for Economic Affairs, Rebecca Blank on May 10th on the St. Paul Campus. The Under Secretary is an alumna of the University's Department of Applied Economics and was the esteemed featured speaker of the 2010 James P. Houck Lecture on Food and Consumer Policy.



Under Secretary Blank offered a formula for economic recovery that included combining consumption, investment, net exports, and government spending to spur economic growth. She characterized the labor market by noting the continued drag of high unemployment afflicting younger, less educated, and male workers and an economically motivated increase in older worker participation and part-time employment. Dr. Blank noted evidence of a "solid recovery," yet weaknesses remained in the housing and labor markets. She advocated maintaining assistance for unemployed workers and housing mortgage problems, promoting activities that generate economic growth like innovation, the National Export Initiative, and educational reforms.

The James P. Houck Lecture on Food and Consumer Policy honors the late Dr. James P. Houck who was Head of the Department of Applied Economics from 1990–1998, a department where he received his Ph.D. and taught price analysis and trade theory for 33 years. He also led the faculty team that established The Food Industry Center.

## TFIC IN THE NEWS

"...most elements of the GDP (the total of all goods and services produced) are trending positive, but recovery from the financial crisis-led recession will take longer and 'will be more U-shaped' than V-shaped.

—U.S. Department of Commerce Under Secretary Rebecca Blank  
"Tracking the recession and 'U-Shaped' recovery.  
Brad Allen, *MinnPost.com*  
May 11, 2010.

## Food Thought 2.0

In 2010, TFIC introduced its thoughtful food discussions to the Web 2.0 world with its new blog – *Food Thought*.

*Food Thought* offers perspective and discussion from University faculty and researchers on current issues relating to an efficient, ethical, healthy, and safe food system. The blog's contributing writers discuss newly published research from The Food Industry Center, commentary and summaries of TFIC events, and provide thought leadership on a variety of issues impacting the food industry. Blog posts have covered a wide variety of topics including social media's influence on the food industry, the impact of increasing obesity rates on the 2010 Farm Bill, new research on the structure of local foods supply chains, and real-time publication of Continuous Food Safety/Defense Tracking project results revealing the increased concern over seafood safety after the 2010 Gulf Oil Spill. The Center's vision for its *Food Thought* blog is a thoughtful space that advances knowledge of the food industry through academic, industry, and consumer perspectives. Since its first post on April 28, over 170 people have visited the *Food Thought* discussion.

We often get feedback that networking time is a valuable feature of the Center's events. We saw no reason why this activity should be limited to only our events. In early 2010, The Food Industry Center launched another social media initiative by establishing a networking group on LinkedIn. The space offers the TFIC community a place to reconnect around shared interests in food topics, share food career opportunities, and receive food research, current events, and program communications from the Center and University of Minnesota. Please join us to help strengthen The Food Industry Center community, its resources, and its knowledge. Login to LinkedIn and search for "The Food Industry Center" group to join us.

The Food Industry Center  
**FOOD  
THOUGHT**  
Blog

## EDUCATIONAL INITIATIVES

### LEARNING THE GROCERY BUSINESS



Robert Thatcher, Kristy Mussman, Raleigh Shetka, and Phillip Degeneffe

Ever wonder how economics students can offer knowledge of the economic consequences of product theft to potential food industry employers? Or how food marketing students can offer ideas for turning green recycling practices into successful marketing campaigns? Thanks to a student intern program at the annual National Grocers Association Convention, university students cultivate industry-specific knowledge valuable to industry employers after graduation. In 2010, The Food Industry Center sent four students to the 2010 Convention to present industry research and facilitate learning sessions at the Convention.

Applied Economics seniors, Kristy Mussman and Robert Thatcher demonstrated their professional industry knowledge with a presentation of Center research from the 2009 *Environmental Practices Inventory: 2009 Survey of Minnesota Grocers*. Seniors Raleigh Shetka and Phillip Degeneffe contributed to information sessions on green marketing, changing supermarket trends, and store security. Students were also paired with industry mentors who answered students' questions about the food business and introduced students to industry contacts. This past year, as a testament to the value of the mentorship program, students and mentors spent more time together learning the industry than in past years and a program-high 55 students from 13 universities and colleges participated as interns.

Reflecting on his intern experience, Raleigh Shetka noted "The best [session] I attended discussed consumer trends in the supermarket and gave an interesting look into the processes and technologies that capture their data." Phillip Degeneffe commented "I hope to use this internship experience as a first step into understanding how business is done in the grocery industry... I felt that I was an important part of the convention."

This year's University of Minnesota student interns add to the growing number of Minnesota students who have found the NGA student intern experience a valuable tool for learning about the retail food business. If you are committed to building informed future leaders for the food industry or providing professional development opportunities for undergraduate students, please contact The Food Industry Center ([tfic@umn.edu](mailto:tfic@umn.edu)) to learn more about how you can support NGA interns.



Jean Kinsey, Robert Thatcher, Kristy Mussman, and Raleigh Shetka

#### TFIC IN THE NEWS

"Undergraduate students take classes in sales, retail management and food management and according to Jean Kinsey, professor of applied economics and director of The Food Industry Center, many students wind up working in category management-type roles."

—Craig Levitt, *Grocery Headquarters*  
"Higher learning"  
June 1, 2010



## RESEARCH

# Measuring Consumer Confidence in the U.S. Food Supply

Over the past few years a series of high profile food safety events have commanded intense media attention. From the Peanut Butter Corporation of America (PCA) salmonella recall to threats posed to seafood safety by the Deep Water Horizon's Gulf Oil Spill, it seems that consumers are barraged with non-stop news of threats to our food supply. And while the U.S. has not experienced an intentional terroristic attack on the vulnerable food supply chain, food protection continues to be a major concern for the U.S. government and the food industry. In order to anticipate consumer reactions to potential food safety and food terrorism incidents, researchers Dennis Degeneffe, Jean Kinsey, Tom Stinson, and Sakiko Shiratori of The Food Industry Center and Wes Harrison of Louisiana State University have been tracking consumer confidence in the safety of the U.S. food supply since May of 2008.

The Consumer Food Safety/Defense Tracking Survey (CFST) was designed to measure and analyze consumer response to incidents impacting consumer confidence in the safety of the food supply using two indices. The study draws an independent, nationally representative sample of approximately 175 consumers every week and asks the same questions over time; in order to determine how attitudes and purchases change as food safety and defense incidents

occur and how long the changes in attitudes and purchases last. Two separate indices are generated from the survey data - one to track consumer concern over the safety and defense of the U.S. food supply (CFSTc) and one to track consumer perceptions of the preparedness of industry and government to deal with food safety and defense incidents (CFSTp) relative to a year ago. Both of these indices are measured relative to the results from the first five weeks of the survey.



A media tracking index (MTI) was also constructed from daily Boolean searches utilizing the following keywords: food defense, food terrorism, agricultural terrorism or agterrorism, food safety, food poisoning, food contamination, foodborne illnesses, foodborne diseases and food recall. With the MTI data, researchers can analyze the effects of media exposure on the two consumer confidence indices.

Through the week of September 6th, 2010, The Food Industry Center collected 123 continuous weeks of data from demographically and geographically representative samples of consumers. Participants are asked about their attitudes, perceptions, concerns and confidence with respect to the safety and defense of the U.S. food supply. Since its inception the week of May 5th, 2008, a total of 22,449 interviews have been completed.

## What We Have Learned

Although no major food terrorism events have occurred in the U.S. since the beginning of the study, several major food safety related events have occurred and each of these events have contributed to both a general understanding of how food borne illnesses and product recalls affect consumer perceptions and concerns, and have also resulted in observations unique to the individual incidents.

In general it appears that consumer sentiment is affected nearly instantaneously with news coverage of a food safety event. After news coverage of the event plays out, consumer sentiment returns to pre-event levels in about four to six weeks. During these cycles, the severity of the impact on consumer perceptions depends on the extent of the event. Although several incidents have been tracked, two notable events from the past year have provided insightful data on consumer response to food safety incidents.

continued on next page...

## The 2008-2009 Peanut Butter Corporation of America (PCA) Peanut Butter Recall

The PCA recall was by far the most significant event of any tracked by CFST with respect to impact on consumer confidence and perceptions of the safety of the U.S. food supply. Most notably, CFSTp (the consumer perceived preparedness index) fell by nearly half from a level of 127 the week of December 1, 2008 to a low of 65 the week of February 2, 2009. During this event, consumer confidence in the ability of food manufacturers, in particular, to protect the safety of the food supply fell dramatically from a high of 42% to a low of 27% (indicating a 4, 5 or 6 rating on a 6 point scale from 1 = not at all confident to 6 = extremely confident).

## Deep Water Horizons Gulf Oil Spill

Although not a food recall, the 2010 Gulf Oil Spill had a dramatic impact on consumer concerns about the safety of seafood from the Gulf of Mexico. At its height, 92% of respondents indicated some level of concern (indicating a 4, 5 or 6 rating on a 6 point scale with 1 = not at all concerned and 6 = extremely concerned) over the threat the oil spill posed to the safety of seafood from the Gulf of Mexico. Interestingly, the impact of the spill was rather negligible on the study's indexes tracking sentiment towards the overall food supply. When asked how the oil spill would affect their seafood consumption, 58% of respondents indicated they would avoid eating seafood from the Gulf, or altogether. With the capping of the well, these concerns have started to decline.

## TFIC IN THE NEWS

**“The conclusions of a pioneering survey from the University of Minnesota’s Food Industry Center and Louisiana State University’s AgCenter should come as a surprise to no one.”**

—*StarTribune* Editorial

“Editorial: Confidence erodes in U.S. food supply – U study should be a wake-up call for food industry.”  
February 22, 2009

## Food Recalls Quantified

The Food Industry Center’s unmatched ability to analyze food industry issues with a cross-sector perspective was demonstrated this year in the completion of the final two of a three-part series of food recall case studies funded by the National Center for Food Protection and Defense. The value of this research was acknowledged by nearly 700 people who have accessed the online case studies documenting the health, economic, and supply chain complexities of a food recall.

A study of two recent food recalls revealed the undeniable health and economic impacts recalls can have on consumers, food products, and the industry. TFIC researchers Jon Seltzer, Jean Kinsey, Jeff Rush and Xudong Ma completed studies of the Natural Selections 2006 spinach and Westland/Hallmark 2008 beef recalls. The Natural Selections *E.coli* 0157:H7 contamination resulted in nearly 4,000 illnesses and unit sales for fresh bagged spinach fell more than 70 percent from September to October 2006. The 2008 Westland/Hallmark beef incident, triggered by video on YouTube of downed cattle being mistreated at the slaughterhouse, resulted in the recall 143 million pounds of beef and a liability of \$67.2 million in recall costs for the meat packing plant.

The case studies series meticulously documented the timeline and outcomes of each recall and provide a valuable opportunity to learn from these incidents. To prepare future food industry leaders for recall planning, The Food Industry Center developed a learning module to accompany the Natural Selections recall study. The problem set is designed to enhance and extend learning after reading the Natural Selections case. Students studying the recall case study will complete exercises on the supply and demand response to the recall incident and learn how substituted products factor into the recovery period.

Case studies and the learning module are available on The Food Industry Center website at [foodindustrycenter.umn.edu/Case\\_Studies.html](http://foodindustrycenter.umn.edu/Case_Studies.html).



Jon Seltzer



Jeff Rush



## Just what is “Local Food”?

How does local food reach consumers? How do local food supply chains compare in terms of important economic and environmental performance measures with mainstream supermarket supply chains?



Robert King

To answer these questions, incoming TFIC Director Robert King coordinated a study, funded by USDA's Economic Research Service, in which researchers conducted a series of case studies on supply chains for five “product-place” combinations: beef in the Minneapolis-St. Paul, Minnesota metropolitan area; blueberries in the Portland, Oregon metropolitan area; leafy greens in the Sacramento, California metropolitan area; apples in the Syracuse, New York metropolitan area; and fluid milk in the Washington, D.C. area.

While many equate farmers markets with local foods, the case studies showed that local foods reach consumers through many channels. Each location focused on the supply chain for a local product that is marketed directly by producers to consumers (direct market chain) and the supply chain for a local product that reaches consumers through one or more intermediaries (intermediated chain). A mainstream chain served as a baseline for comparison in assessing the structure, size, and scope of the two local supply chains.

The study yielded noteworthy insights on the local food sector. While the study team defined “local” in terms of a circumscribed geographic area, it also recognized that some consumers also include information about factors such as production practices, firm size, cultural values, and distribution range in their definition of local. Local food supply chains may also include explicit mechanisms for conveying information not only about where food was produced, but also about how and by whom it was produced. Meanwhile, producers who sell directly to consumers often have a “portfolio” of market outlets that might also include farm stands, Community

Supported Agriculture (CSA) arrangements, and online sales. Local foods products can also successfully plug into mainstream supermarket and food service distribution channels, effectively reaching more consumers. Finally, cross-case comparisons of supply chain performance showed that producers who sell through local food supply chains tend to receive higher revenues per unit and a larger share of the retail price. This is especially true for those who sell direct to consumers.



The case studies also shed light on the popular issue of “Food Miles.” The study showed that products in local food supply chains do travel fewer miles from producer to consumer than in mainstream chains. However, total transportation fuel use per unit of product can be greater in local food supply chains due to inefficient transportation.

A complete report on the case study results, as well as extended versions of all the case studies can be accessed online at: [foodindustrycenter.umn.edu/Local\\_Foods\\_Case\\_Studies/index.htm](http://foodindustrycenter.umn.edu/Local_Foods_Case_Studies/index.htm). For more reading on local foods, see the special issue of CHOICES magazine edited by Rob King. It is available online at: [www.choicesmagazine.org/magazine/block.php?block=44](http://www.choicesmagazine.org/magazine/block.php?block=44).

## Calculating the Cost of a Healthy Lunch

In response to the 2008 spike in food costs, roughly three-quarters of U.S. school districts were forced to raise the price of their lunches for the 2008-09 school year because the federal reimbursement rate did not cover the higher food costs<sup>1</sup>. The average price increase was about 25 cents per day for the typical lunch. The School Nutrition Association reported that schools paid 14% more for milk in the fall 2008 compared to a year earlier, 13% more for fruits and vegetables, 11% more for meat and meat alternatives, and 15% more for bread; all staple components in balanced, nutritious school lunches. To counter the cost increases, school food service operations were forced to make menu substitutions, offer fewer choices, delay purchases of much-needed equipment, reduce the quantities of costlier healthy food options such as whole grains and fruits and vegetables, and increase the price of the “paid” school lunch.

To determine the adequacy of the school lunch program reimbursement formula, researchers Ben Senauer and Koel Ghosh conducted an analysis of the current federal reimbursements rates. Their research objective was to aid child nutrition food policy, specifically the National School Lunch Program (NSLP), in achieving its policy goals by identifying, developing, and evaluating the metrics needed to inform and formulate policy.

The current reimbursement formula is based on the Consumer Price Index Food Away From Home (CPI-FAFH) “full-service restaurants” data. However, Senauer and Ghosh uncovered inconsistencies using this data set to calculate school lunch costs. In full-service restaurants, the cost of food and beverages accounts for about 32% to 33% of their total sales. In comparison, food and beverage costs represent 37% of the total costs of the typical



Koel Ghosh



Ben Senauer

school lunch<sup>2</sup>. Meanwhile each NSLP meal is required to include a serving of milk and meet other nutritional guidelines not required of commercial food service meals. Further, the average annual percentage increase in school lunch costs from 2001-2008 was 4.07% in Minnesota’s cost per lunch, whereas the federal reimbursement rate was only 2.93%.

Study results clearly indicated that annual adjustments in the federal school lunch reimbursement rate were inadequate when food prices were rapidly rising in 2007 and 2008. The analysis also suggested the ability of school districts’ food service operations to meet the improved nutritional guidelines will be highly dependent on their cost structure and operating environment. Districts with a very high percentage of students receiving free and reduce price lunches and with facilities in which they can do more food preparation are, in some cases, already able to serve healthier meals than other districts.

Results from the full study were published in 3rd Quarter 2009 issue of Choices magazine in an article titled “Adequacy of Federal School Lunch Reimbursement Adjustments.” The article is available online by visiting [www.choicesmagazine.org/magazine/article.php?article=85](http://www.choicesmagazine.org/magazine/article.php?article=85).

1 Kingsbury, K. (2008, July 11). Food prices eat up school lunch. *Time*. Retrieved July 15, 2009 from <http://www.time.com>.

2 Newman, C., Ralston, K., and Clauson, A. (2008, September). Balancing nutrition, participation, and cost in the National School Lunch Program. *Amber Waves*, 6(4). Washington, DC: U.S. Department of Agriculture, Economic Research Service.



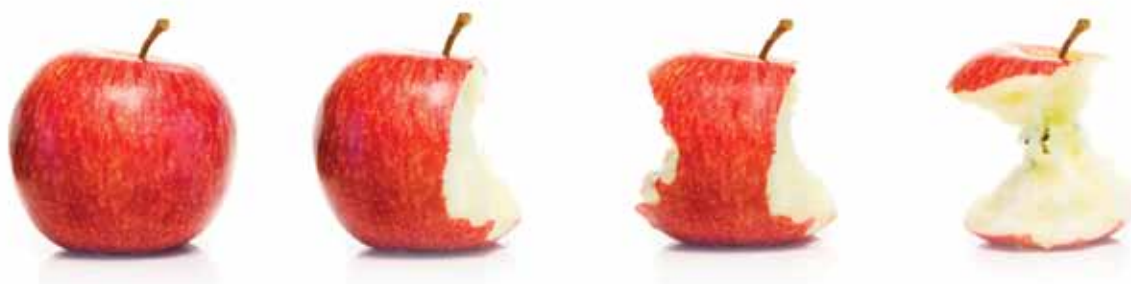
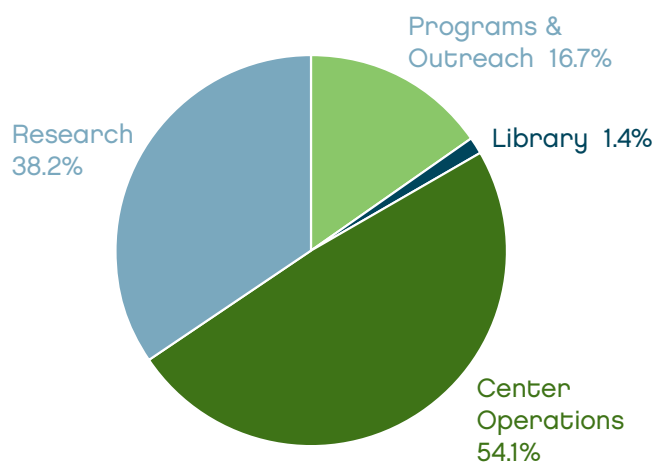
# TFIC Financial Report

## FY09 Revenue & Expense Sheet

REVENUE	
FY09 Sponsorship & Contributions	107,500
Restricted Revenue	105,392
Investment Gain (Loss)	18,693
External Sales	10,450
<b>TOTAL REVENUE</b>	<b>242,035</b>

EXPENSES	
Unrestricted Expenditures	170,558
Restricted Expenditures	105,526
<b>Total Expenditures</b>	<b>276,084</b>
<b>TFIC FOUNDATION RESERVES</b>	<b>248,445</b>

## TFIC Expenses



## TFIC in the News

The Food Industry Center is frequently contacted by the media as an expert source of knowledge on the food industry. Here is some of what we had to say...

“Given the amount of news coverage the oil spill has received, these results may not be surprising, but it does show that consumers are connecting the event to food safety,”...

Dennis Degeneffe

“Most have some concern over gulf seafood”

*UPI*, June 28, 2010

“Survey assesses Gulf spill’s impact on seafood consumption”

Caroline Scott-Thomas, *Food Quality News.com*  
June 29, 2010

“It’s probably useful to know that organic food has been growing at double digit rates for several years and in total still occupies less than 3 percent of the total food sales,”...

Jean Kinsey responding to organic foods trends.

“Organic Farmers Hoping Trucks Increase Business”

*WCCO.com*

August 1, 2009

“People like their own store...The choice is driven largely by location, with shoppers picking a spot that is convenient to home or on the route home from work...the bond with grocery stores isn’t as tight in large metropolitan areas...The recession has tested shoppers’ loyalty, too, with many cherry-picking specials from a variety of stores to save money...The bond is still significant, though, and a strike will upset the routines of many shoppers...Having to go to a new store would put an extra learning curve on them, an extra burden,”...

Jean Kinsey discussing likely consumer behavior to a pending United Food and Commercial Workers strike in Arizona.

“Possible strike a concern for shoppers”

Dawn Gilbertson, *The Arizona Republic*  
November 12, 2009

“The basic attitude that people have about food is related to the likelihood that they’re at risk for obesity and weight gain...Women in the middle group tend to lead busy lifestyles and are often preoccupied with other activities and responsibilities, with eating generally taking a back seat,”...

Dennis Degeneffe responding to findings from the *Relationship Between Attitudes and Indicators of Obesity for Midlife Women* study.

“Food Attitudes Affect Obesity Risk in Middle-Aged Women”

*Science Daily*

December 9, 2009



## TFIC in the News *(continued)*

“Despite the early indicators of an economic recovery, lingering unemployment and other lagging effects of the recession are causing more Americans than ever to go hungry...As the results of this survey indicate, hunger is a distressing and humiliating circumstance, but Americans agree it is not too hopeless to try to help.”

Jean Kinsey on findings from the Hormel Hunger Study.

“Americans Struggle to Feed Their Families, Know Others Who Needed Donated Food, According to The 2009 Hormel Hunger Survey”

WCCO

November, 11, 2009

“In the short term, although major food safety incidents have a significant impact on consumer behavior, sales of the product typically rebound to normal levels in four to six weeks,”...

Dennis Degeneffe

“Recall Procedures Outlined”

Elliot Zwiebach, *Supermarket News*

February 15, 2010

“Jean Kinsey, a University of Minnesota economics professor, replied that when people are hungry, ‘they tend to eat what is available,’...Kinsey said that the most frequent question she gets is ‘Why doesn’t our government subsidize the production of fruits and vegetables like (or instead of) corn and soybeans?’”

An article on Jean Kinsey’s testimony before the House Agricultural Committee on May 13, 2010.

“House ag chairman wants food stamps’ ties to obesity examined”

Jerry Hagstrom, *AgWeek*

May 17, 2010

“‘We actually have the cheapest food in the world, as measured by the share of the average household’s budget spent on food. It’s less than 10 percent for food at home in the United States,’ said Senauer...But Senauer says cheap food is often low in nutrients and high in calories, and that can take an enormous toll on a person’s health over time.”

Ben Senauer on why Americans are struggling with weight problems.

“Combating food illiteracy”

Lorna Benson, *Minnesota Public Radio*

March 23, 2010

# Publications

## TFIC Publications

### *Food Companies in Minnesota: How Many are There?*

Kinsey, Jean and Koel Ghosh.

St. Paul, MN: University of Minnesota, The Food Industry Center, 2010.

### *Natural Selection 2006 E. coli Recall of Fresh Spinach: A Case Study by The Food Industry Center*

Seltzer, Jon; Rush, Jeff; and Jean Kinsey, The Food Industry Center, University of Minnesota. October 2009.

### *Westland/Hallmark: 2008 Beef Recall; A Case Study by The Food Industry Center*

Seltzer, Jon; Rush, Jeff; and Jean Kinsey.

St. Paul, MN: University of Minnesota, The Food Industry Center, 2010.

## Staff and Research Affiliate Publications

### *Childhood Overweight and School Outcomes*

Wendt, Minh and Jean Kinsey. Selected paper presented at Agricultural and Applied Economics Association Annual Meeting, Milwaukee, WI, July 26-28, 2009.

### *Environmental Practices Inventory: 2009 Survey of Minnesota Grocers.*

Cioci, Madalyn; Farnan, Tim; Ghosh, Koel; Hetzel, Colleen; Jensen, Cathy; Kim, Bae; Kinsey, Jean; Larson, Ron; Pfuhl, Jamie. St. Paul, MN: Minnesota Pollution Control Agency, 2009.

### *Relationship Between Attitudes and Indicators of Obesity for Midlife Women.*

Sudo, Noriko; Degeneffe, Dennis; Vue, Houa; Merkle, Emily; Kinsey, Jean; Ghosh, Koel; Reicks, Marla. IN: Health Education and Behavior, v.36, no.6, December 2009, pp. 1082-1094.

### *Index of Consumer Confidence in the Safety of the United States Food System*

Kinsey, Jean; Harrison, Wes R.; Degeneffe, Dennis; Ferreira, Gustavo; and Sakiko Shiratori. American Journal of Agricultural Economics. Vol. 91, Issue 5, pp. 1161-1513, December 2009.

### *Adequacy of Federal School Lunch Reimbursement Adjustments*

Ghosh, Koel and Benjamin Senauer. IN: Choices, v.24, no.3, 3rd Quarter, 2009.

### *Consumer Response to a New Food Safety Issue: Food Terrorism*

Kinsey, Jean; Stinson, Tom; Degeneffe, Dennis; Ghosh, Koel; Busta, Frank. IN: Global Issues in Food Science and Technology, edited by Gustavo Barbosa-Canovas, Alan Mortimer, David Lineback, Walter Spiess, Ken Buckle and Paul Colonna. New York, NY: Elsevier, 2009, pp.145-161, 2009.

### *Segmenting Consumers for Food Defense Communication Strategies*

Degeneffe, Dennis; Kinsey, Jean; Stinson, Thomas; and Koel Ghosh. International Journal of Physical Distribution & Logistics Management, 2009, Vol. 39, No. 5, pp. 365-403.

### *Analysis of media agenda-setting effects on consumer confidence in the safety of the U.S. food system.*

Bharad, Abhishek Bhagwat; Harrison, R. Wes; Kinsey, Jean; Degeneffe, Dennis; Ferreira, Gustavo.

Paper presented at Southern Agricultural Economics Association Annual Meeting, February 6-9, 2010, Orlando, FL, 2010.

### *Food and Consumer Economics*

Unnevehr, Laurian; Eales, James; Jensen, Helen; Lusk, Jayson; McCluskey, Jill; and Jean Kinsey. American Journal of Agricultural Economics. Vol. 92, No. 2, pp. 506-521, April 2010.

### *The New Food Economy*

Oskam, Arie; Backus, Ge; Kinsey, Jean; Frewer, Lynn. IN: EU Policy for Agriculture, Food and Rural Areas, edited by Arie Oskam, Gerrit Meester and Huib Silvius. Wageningen, The Netherlands: Wageningen Academic Publishers, 2010, pp.297-306, 2010.

### *Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains*

King, Robert P.; Hand, Michael S.; DiGiacomo, Gigi; Clancy, Kate; Gomez, Miguel I., Hardesty, Shermain D.; Lev, Larry; and Edward W. McLaughlin. Economic Research Report No. (ERR-99) 81 pp, June 2010.



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The Food Industry Center would like to extend a special THANK YOU to John Johnson for his leadership of our Board of Executives all of whom graciously extended their guidance to the Center this year.

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