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on the

Dairy Promotion
and Research Program

and the

Fluid Milk
Processor Promotion Program

2013 and 2014 Program Activities

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Executive Summary

The enabling legislation of the dairy producer, dairy importer, and fluid milk processor promotion programs requires the U.S. Department of Agriculture (USDA) to submit an annual report to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry. The dairy and fluid milk promotion programs are conducted under the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4501 et seq.) (Dairy Act); the Dairy Promotion and Research Order (7 CFR § 1150) (Dairy Order); the Fluid Milk Promotion Act of 1990 (7 U.S.C. 6401 et seq.) (Fluid Milk Act); and the Fluid Milk Promotion Order (7CFR § 1160) (Fluid Milk Order), respectively. This report includes summaries of the activities for the dairy and fluid milk programs, including an accounting of funds collected and spent; USDA oversight; and independent analyses of the effectiveness of the advertising campaigns. Unless otherwise noted, this report addresses program activities for combined fiscal periods January 1 through December 31, 2013, and January 1 through December 31, 2014, of the Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program.

Dairy Promotion and Research Program

Mandatory assessments collected under the Dairy Act totaled \$102.5 million in 2013 and \$109.7 million in 2014, including interest income. The National Dairy Promotion and Research Board (Dairy Board) portion of the revenue from the 15-cent-per-hundredweight producer assessment was \$99.8 million, and the 7.5-cent-per-hundredweight dairy importer assessment was \$2.6 million in 2013. The Dairy Board portion of the revenue from the producer assessment in 2014 was \$102.8 million, and the importer portion was \$2.6 million. Qualified dairy product promotion, research, or nutrition education programs (Qualified Programs (QPs))¹ revenue was \$206 million for 2013 and \$212 million for 2014.

Expenditures by the Dairy Board and many of the QPs are integrated through a joint process of planning and program implementation to work together on the national, regional, State, and local level. The Dairy Board continued to develop and implement programs to expand the human consumption of dairy products by focusing on partnerships and innovation, product positioning with consumers, and new places for dairy product consumption.

The Dairy Board continued its support for childhood health and wellness through the publication of the *The Wellness Impact: Enhancing Academic Success Through Healthy School Environments*. The report reinforces the “learning connection” – the link between quality nutrition, physical activity, and academic performance and aligns with the Dairy Board’s support of Fuel Up to Play 60 – the largest in-school childhood health and wellness program in the country.

¹ Qualified Programs (QPs) are State, regional, or importer organizations that conduct a dairy product promotion, research, or nutrition education program, authorized by Federal or State law, or that were active programs prior implementation of the Dairy Act. The Dairy Order provides that dairy producers can receive a credit up to 10 cents, against the 15 cents per hundredweight national assessment, and importers can receive up to 2.5 cents per hundredweight, for contributions to QPs.

The Dairy Board also continued its support of sustainability research and created an industry-wide Stewardship and Sustainability Guide to help companies answer customer and consumer questions about dairy's sustainability. Details of the activities of the Dairy Board are presented in Chapter 1. Details of the Dairy Board's 2013 and 2014 finances are presented in Chapter 5. Details of the Qualified Programs' activities can be found in Chapter 7.

Fluid Milk Processor Promotion Program

The Fluid Milk Processor Promotion Board (Fluid Milk Board) continued to administer a generic fluid milk promotion and consumer education program funded by America's fluid milk processors. The program is designed to educate Americans about the benefits of milk, increase milk consumption, and maintain and expand markets and uses for fluid milk products in the lower 48 States and the District of Columbia. The Fluid Milk Board continued to focus on occasion-based strategies, long-range planning, and a strategic roadmap that identified breakfast at home as having the best potential to stem the decline in fluid milk consumption.

During 2013, the Fluid Milk Board launched a variety of messages and ads highlighting milk's 8 grams of protein per 8-ounce serving. Through these messages, the Fluid Milk Board sought to educate general market and Hispanic consumers on the versatility of fluid milk and how it can help make breakfast a powerful way to start the day. The Fluid Milk Board also continued its efforts to position chocolate milk as the refuel beverage of choice for athletes.

Assessments totaled \$100.3 million in 2013 and \$97.3 million in 2014. The Fluid Milk Order requires the Fluid Milk Board to return 80 percent of the funds received from California processors to the California Milk Processor Board. The amount returned to California from the 2013 assessments was \$9.3 million, and the amount returned from 2014 assessments was \$9.2 million. The California fluid milk processor promotion program uses the funds to conduct its promotion activities, which include the "got milk?®" advertising campaign. The activities of the Fluid Milk Processor Promotion Program are presented in the Fluid Milk Board section in Chapter 1 of this report. Details of the Fluid Milk Board's 2013 and 2014 finances are presented in Chapter 6.

USDA Activities

USDA has oversight responsibility for the dairy and fluid milk promotion programs. The oversight objectives ensure the boards and QPs properly account for all program funds and they administer the programs in accordance with the respective Acts and Orders and USDA guidelines and policies. All board budgets, contracts, and advertising materials are reviewed and approved by USDA. USDA employees attend all board and committee meetings, monitor all board activities, and have responsibility for obtaining an independent evaluation of the programs. Additional USDA responsibilities relate to nominating and appointing board members, amending the Orders, conducting referenda, assisting with noncompliance cases, and conducting periodic program management reviews. The boards reimburse the U.S. Secretary of Agriculture, as required by the Acts, for all of USDA's costs of program oversight and for the independent analyses discussed in Chapter 3. Chapter 2 details USDA's oversight activities.

Independent Analyses

Chapter 3 and Chapter 4 describe the results of the independent econometric analyses, conducted by Texas A&M University, on the effectiveness of the programs implemented by the Dairy Board and the Fluid Milk Board. Analyses indicate the generic fluid milk marketing activities sponsored by the programs have helped mitigate the decline of fluid milk consumption.

Chapter 3 presents the combined effects of 2013 promotion activities on the consumption of fluid milk, cheese, butter, all dairy products, and dairy exports, and includes benefit-cost ratios (BCRs) for dairy producers and fluid milk processors. The BCRs for producers were as follows for every dollar invested in demand-enhancing activities: (1) fluid milk - \$3.98, (2) cheese - \$6.21, and (3) butter - \$29.49. The BCR for fluid milk processors attributed to fluid milk promotion activities is \$4.88. Chapter 3 also quantitatively assesses the impacts of the dairy producer partnership with McDonald's involving specialty coffee.

Chapter 4 presents the combined effects of 2014 promotion activities on the consumption of fluid milk, cheese, butter, all dairy products, and dairy exports, and includes BCRs for dairy producers and fluid milk processors. The BCRs for producers were as follows for every dollar invested in demand-enhancing activities: (1) fluid milk - \$3.93, (2) cheese - \$6.71, and (3) butter - \$29.53. The BCR for fluid milk processors attributed to the fluid milk promotion program was calculated to be \$4.87. Chapter 4 also provides a qualitative and quantitative analysis of dairy product imports and assessments.

Chapter 1

The Dairy and Fluid Milk Processor Promotion Programs

The Dairy Board and the Fluid Milk Board continued to develop and implement programs to expand the human consumption of fluid milk and dairy products. This chapter details the activities of each board.

I. Dairy Promotion and Research Board

The mission of the Dairy Board is to coordinate a promotion and research program that maintains and expands domestic and foreign markets for fluid milk and dairy products. The Dairy Board is responsible for administering the Dairy Order, developing plans and programs, approving budgets, and monitoring the program results.

The U.S. Secretary of Agriculture (Secretary) appoints 38 members to the Dairy Board, 36 of whom are dairy producers who each represent 1 of 12 geographic regions within the United States, and 2 of whom represent dairy importers. The appointments are made from nominations submitted by producer organizations, importer organizations, general farm organizations, and QPs. Members serve staggered 3-year terms with no member serving more than two consecutive terms.

The Dairy Board has two standing committees: the Finance and Administration (F&A) Committee and the Executive Committee. The F&A Committee consists of the Dairy Board officers and appointees named by the Dairy Board chair. The Dairy Board treasurer is the chair of the F&A Committee, and the full Dairy Board serves as the Executive Committee. The remaining committees for the Dairy Board are joint program committees with the United Dairy Industry Association (UDIA).

Dairy Management Inc. (DMI), a management and staffing corporation, is a joint undertaking between the Dairy Board and UDIA. UDIA is a federation of 19 of the 63 QPs under the direction of a board of directors. The mission of DMI is to drive increased sales of and demand for dairy products and ingredients, on behalf of dairy producers and dairy importers. DMI works proactively in partnership with leaders and innovators to increase and leverage opportunities to expand dairy markets. The DMI Board of Directors comprises all Dairy Board (38) and all UDIA (45) members. Voting is equalized between the Dairy Board and UDIA. DMI serves the Dairy Board and the UDIA Board and facilitates the integration of promotion funds through a joint process of planning and program implementation so that the programs on the national, regional, State, and local level work together. The Dairy Board and UDIA Board must separately approve the DMI budget and annual plan before they can be implemented. During 2013 and 2014, DMI continued to implement a national staffing structure to plan and execute the national programs.

DMI funds 1- to 3-year research projects supporting marketing efforts. Six Dairy Foods Research Centers and one Nutrition Institute provided much of the research in 2013 and 2014. Their locations and the research objectives are provided in Chapter 5. Universities and other industry researchers throughout the United States compete for these research contracts.

The joint Dairy Board and UDIA Board committee structure provides the framework for DMI program activities. The Dairy Board and UDIA Board Chairs assign their respective board members to the following joint program committees: Research and Insights; Health and Wellness; Export and Ingredients; and Producer Relations and Consumer Confidence. Each committee elects a Chair and Vice-Chair. The joint committees and the DMI staff set program priorities, plan activities and projects, and evaluate results. During 2013 and 2014, the Dairy Board and UDIA Board met jointly six times.

DMI hosted dairy director regional planning forums across the country to review and create marketing strategies for the unified dairy promotion plan. These forums are designed to create one unified dairy promotion plan and allow opportunities for grassroots dairy producers to ask questions, raise concerns, and offer thoughts on the plan's direction and development.

The National Dairy Council®

The National Dairy Council (NDC) is the nutrition marketing arm of DMI and has been the leader in dairy nutrition research, education, and communication since 1915. NDC provides timely, scientifically sound nutrition information to the media, physicians, dietitians, nurses, educators, consumers, and other health professionals. Additionally, NDC funds independent research to aid in the ongoing discovery of information about dairy foods' important role in a healthy lifestyle. This research provides insights to industry for new dairy product innovation.

Health professional outreach remained a critical component of NDC and the 3-Every-Day™ program. The American Academy of Family Physicians, the American Academy of Pediatrics, the Academy of Nutrition and Dietetics, the National Medical Association, the School Nutrition Association, and the National Hispanic Medical Association all continued their support and partnership with NDC and 3-Every-Day™. By working with key health professional partners like these, NDC continued to provide a clear, practical message to the public on the importance of consuming three daily servings of low-fat or fat-free dairy. Combined, these organizations represent more than 250,000 health professionals nationwide.

As an extension of its online engagement of health professionals, NDC continued its blog, "The Dairy Report" (www.thedairyreport.com). Blog contributors include NDC registered dietitians, Ph.D. nutritionists, and communication experts, as well as guest nutrition and health and wellness experts. Through the blog, NDC provides the latest news, analysis, and opinions on dairy-related nutrition and health research.

Fuel Up to Play 60

Fuel Up to Play 60 (FUTP60) is an in-school program combining the nutrition expertise of NDC and the fitness expertise and star power of the National Football League (NFL) to combat childhood obesity and provide youth with resources necessary to improve their personal health and school nutrition and wellness environment. FUTP60 is based on the USDA's Dietary Guidelines for Americans that recommend the consumption of low-fat and fat-free dairy foods, more fruits, vegetables, and whole grains, and getting 60 minutes of daily physical activity.

During the 2013 and 2014 school year, FUTP60 reached more than 38 million students in more than 73,000 schools. Students and schools joined the program by signing up at www.fueluptoplay60.com. Through the enrollment, students and schools gained access to a School Wellness Kit containing in-school promotional materials and a “Playbook” containing healthy eating and physical activity strategies or “plays.” Each of the plays could be tailored to individual school health and wellness needs. Students were encouraged to form teams, with supervision from an adult program advisor, to carry out the plays and generate excitement for making healthy changes throughout the student body.

Gen YOUth Foundation

The Gen YOUth Foundation (Foundation), launched in 2011 by NDC, is a non-profit organization whose mission is to create a movement that will inspire youth to develop healthier eating and physical activity behaviors. The Foundation works with schools, communities, and business partners to develop and support programs that create lasting changes in the child health and wellness arena, including FUTP60.

The Foundation continued to build on the success of its 2012 Learning Connection Summit with the March 2013 publication of *The Wellness Impact: Enhancing Academic Success Through Healthy School Environments*. The report, published in collaboration with the NDC, American College of Sports Medicine, and the American School Health Association, reinforces the “learning connection” – the link between quality nutrition, physical activity, and academic performance.

Innovation Center for U.S. Dairy

Dairy producers, processors, and manufacturers announced an unprecedented agreement in 2008 to collaborate on pre-competitive initiatives through a new Innovation Center for U.S. Dairy (Innovation Center). The goal of the agreement is to accelerate industry innovation throughout the supply chain to increase sales in a competitive consumer marketplace.

The Innovation Center was established by dairy producers through DMI. It is the first organization of its kind to bring together milk producers, processors, and manufacturers under one organization to collaborate on industry issues.

The Innovation Center provides a forum for the entire dairy industry to work together to offer consumers the products they want, when and where they want them, and increase dairy sales through pre-competitive collaboration. It combines the collective resources of the industry to provide consumers with nutritious dairy products and foster industry innovation for healthy people, products, and a planet. DMI staffs and supports the Innovation Center.

The Innovation Center moves its priorities forward through enlisting cross-industry operational committees charged with developing action plans. These committees and purposes include: Health and Wellness Committee – to increase category sales and demand for dairy products by identifying and meeting the health and wellness needs and desires of consumers; Research and Insights Committee – to act as the steward of the pre-competitive innovation assets and resources

of the industry; Globalization Committee – to provide a strategic analysis of the global dairy landscape and a common understanding of the challenges, opportunities, and threats to the U.S. dairy industry posed by increasing globalization; Sustainability Committee – to provide consumers with the nutritious dairy products they want in a way that is economically viable, environmentally sound, and socially responsible; and Food Safety Committee – to improve food safety practices and to protect trust in dairy.

Sustainability

Dairy leaders continued their industry-wide commitment and action plan to reduce the dairy industry's carbon footprint while increasing business value from farm to consumer. The action plan was an outcome of the industry's June 2008 Sustainability Summit for U.S. Dairy, a gathering of 250 leaders representing producers, processors, non-governmental organizations, university researchers, and government agencies, held in Rogers, Arkansas.

The plan focuses on operational efficiencies and innovations to reduce greenhouse gas emissions while ensuring financial viability and industry growth. The dairy industry has committed to a goal to reduce the carbon footprint of fluid milk by 25 percent by the year 2020 – equivalent to taking more than 1.25 million cars off the road every year. The industry will reduce greenhouse gas emissions throughout the entire dairy value chain from production of feed for dairy cows through retail. Based on goals from the Sustainability Summit, the following projects and resources have been created to help reduce greenhouse gas emissions:

1. **Farm Smart:** Includes support tools that adapt to the size, region, soils, and watersheds unique to each dairy. The tools give producers the ability to assess and mitigate their environmental profile; track and measure their footprint; plan for future improvements and communicate progress to customers, community members, regulators, and other stakeholders. Farm Smart tools were upgraded in 2014, and new tools were debuted to estimate loss impact, provide practice alternatives, estimate dollar value of improvements, and quantify potential environmental benefits. The upgraded tools featured four modules: Feed Management, Energy Consumption, Nutrient Management, and Herd Management. Farm Smart has been funded in part by the Walton Family Foundation and USDA's Natural Resources Conservation Service (NRCS).
2. **Farm Energy Efficiency (FEE):** Promotes energy conservation, efficiency, cost savings, and greenhouse gas reductions through outreach efforts linking dairy producers to programs and funds to assist with energy audits and technology upgrades. In 2013, FEE urged dairy producers to apply for funding for energy audits and equipment upgrades through USDA's NRCS' Environmental Quality Incentives Program. Through a 3-year joint initiative with USDA NRCS, more than 50 dairy experts in 10 target States were trained to help complete on-farm energy audits.
3. **Dairy Power/Biogas Capture and Transport:** Focuses on harnessing the value and potential of anaerobic methane digester systems for U.S. dairy producers. The project seeks to put 1,300 methane digesters on dairy farms by 2020. The project also focuses on partnerships between dairy farms, food processors, and retailers to turn waste into a

source of value with methane digester systems by combining food waste with cow manure to maximize environmental, economic, and community benefits.

4. **Cow of the Future:** Seeks scientifically sound, economically viable, and socially responsible ways of reducing enteric methane emissions through improvements in dairy cow nutrition, genetics, and health. The project aims to reduce greenhouse gas emissions for fluid milk by 600,000 metric tons through the adoption of existing technologies and practices and research into new opportunities. In 2013, the Cow of the Future team worked on the Considerations and Resources on Feed and Animal Management: Cow of the Future Report to Improve Business Value and Reduce Greenhouse Gas Emissions report. The report adds environmental and economic considerations to known feed and animal best management practices for on-farm decision makers, including the importance of identifying and providing the macro- and micro-nutrient needs at all phases of a cow's life to enhance animal health, increase milk productivity, and reduce enteric emissions.
5. **Dairy Plant Smart:** Helps dairy processors and manufacturers track and reduce energy use, operating costs, and greenhouse gas emissions associated with energy, fuel, refrigerant, and packaging. The project provides an average of greenhouse gas emissions data for plants in the same region as well as a national average to serve as a benchmark. Dairy Plant Smart promotes dairy industry participation in the U.S. Environmental Protection Agency's (EPA) Energy Star Challenge for Industry. The program recognizes individual dairy plants that have reduced their energy intensity by 10 percent within 5 years.
6. **Dairy Fleet Smart:** Combines science-based decision making tools with recommended management practices that reduce fuel consumption, costs, and greenhouse gas emissions associated with milk transportation and distribution. The tool complements the EPA's SmartWay Program, which helps long-haul fleets and professional drivers reduce fuel consumption, emissions, and air pollution. When used in tandem with the SmartWay program, Dairy Fleet Smart provides performance-improvement tools tailored to dairy industry shippers and carriers.
7. **Dairy Coordinated Agricultural Project Grant:** USDA announced a grant of nearly \$10 million in support of the development of Farm Smart. Researchers at the University of Wisconsin-Madison used the grant to study the environmental impact of various dairy production systems and develop best management practices for producers to implement at the farm level.

Export and Dry Ingredients

DMI's export enhancement program is implemented by the U.S. Dairy Export Council (USDEC). USDEC receives its primary funding from three sources: DMI, USDA's Foreign Agricultural Service (FAS), and membership dues from dairy cooperatives, processors, exporters, and suppliers.

In 2013, USDEC received \$15.9 million from DMI; \$4.7 million from FAS’s Market Access Program and Foreign Market Development Program; and \$1.1 million from membership dues. In 2014, USDEC received \$16.7 million from DMI; \$5.7 million from FAS; and \$1.3 million from membership dues.

In 2013 and 2014, USDEC continued to focus on maximizing its resources to USDEC members and aligning them with a shifting global business environment. USDEC has offices in Washington, D.C.; Mexico City, Mexico; Tokyo, Japan; Seoul, South Korea; Hong Kong and Shanghai, China; Ho Chi Minh City, Vietnam; Bangkok, Thailand; Beirut, Lebanon; and São Paulo, Brazil (Figure 1-1).

Figure 1–1. U.S. Dairy Export Council Offices.



USDEC continued the use of the Web site www.innovatewithdairy.com to help increase demand for U.S. dairy ingredients by promoting the ways that dairy adds the difference in taste, functionality, and convenience. The ingredient program supports dairy product and nutrition research, ingredient applications, development, and technical assistance for the dairy, food, and beverage industries. Dairy, food, and beverage manufacturers use this program to find know-how, laboratory, and professional resources to help develop or improve foods using dairy ingredients.

Publications supporting the innovation and ingredients program include: (1) Ingredient Specification Sheets—provide technical basics on a variety of dairy ingredients and are updated as new data are available; (2) Dairy Herald—reports periodically on how food formulators and markets can take advantage of the taste, cost, functional, and nutritional appeal of dairy ingredients; (3) Application Monographs—published as necessary to provide a comprehensive look at how whey protein and other dairy ingredients can be used in foods and beverages for different functionality; (4) Tools for Innovation—periodic supplement from DMI and Dairy Foods magazine covering dairy product trends and research; (5) Innovations in Dairy—technical bulletin, published two to three times a year on specific topics regarding dairy products, ingredients, processing, and packaging; and (6) Dairy Business View— e-newsletter published bi-

monthly with Dairy Foods magazine covering dairy industry news, new technologies, business trends, innovation, and research.

Dairy Research Institute

DMI created the Dairy Research Institute (DRI) in 2010 to conduct research on behalf of the Innovation Center, the National Dairy Council, and other sponsors by building on the dairy promotion program's investment in research. The nonprofit organization works with and through industry, academia, government, and commercial partners to increase pre-competitive, technical research in nutrition, products, and sustainability. DRI is the first organization of its kind to provide an industry-wide approach to technical research for the dairy industry.

DRI research priorities are categorized into four areas. Nutrition Research includes blood pressure, dairy protein, digestive health, milk fat/cheese, obesity, metabolic health, body composition and performance, and the relationship of food and beverage nutrient density to climate impact. Product research includes applications and technical support for cheese, fluid milk/cultured products, milk ingredients/fractions, and whey/co-products. Sustainability research projects include greenhouse gas reduction opportunities and lifecycle assessments. Finally, planning/partnership/regulatory research includes business development strategy, planning and partnerships, and regulatory affairs guidance.

In 2013, DRI continued its monthly e-newsletter, Dairy Research Insights, to provide updates on recent technical research to dairy industry stakeholders. The e-newsletter features summaries of published research related to DRI's nutrition, product, and sustainability priority areas. The e-newsletter also provides a list of upcoming events, such as conferences, short courses, and workshops.

Industry and Image Relations

Few consumers are connected to food production, and they receive mixed messages through the media about the agriculture industry. As part of an effort to help protect the image of dairy producers and the dairy industry among the public, DMI continued its web site, www.dairyfarmingtoday.org. The site educates the public about how today's dairy producers care for their animals, protect the land, and produce safe, wholesome milk.

DMI continued www.dairygood.org, as a platform for the dairy industry to collectively come together and tell its story using unified messaging. The web site's goal is to put a "face" on the dairy industry and amplify conversations that take place in other dairy social media channels, such as NDC and FUTP60, to demonstrate dairy's commitment to food and nutrition security, and to drive conversations to promote consumer confidence in the dairy industry and its products.

To help dairy producers directly communicate with consumers about dairy farming practices, DMI continued its "Telling Your Story" (TYS) program in 2013 and 2014. YYS provides dairy producers with public relations, presentation, and media training to build and maintain consumers' confidence in the dairy industry's production practices and products. DMI's YYS

social media component includes Facebook, YouTube, Twitter, and blogs to develop a network of social media-savvy dairy advocates to tell the industry's story, build a positive image, and counter inaccurate or uninformed commentary online about dairy farming practices and products.

DMI continued its Issues Management and Crisis Readiness programs. DMI staff and related dairy industry representatives work to monitor and identify current and potential issues where the safety, benefit, or reputation of dairy producers or dairy products may be publicly called into question. As needed, the network of representatives responds to media requests, trains dairy spokespeople, builds third-party relationships within the agricultural industry, and distributes media alerts with key messages to maintain consistent industry-wide responses. Primary areas of focus included animal welfare, environment, sustainability, food safety, child nutrition, and modern farming practices.

The Crisis Readiness program continued to develop a strong network of dairy industry and agricultural representatives. Through this coordinated effort, the program developed a plan to communicate quickly, accurately, and effectively in the event of a crisis such as a disease outbreak, product contamination, or food-borne illness. The program led several regional crisis drills that engaged many sectors of the industry by focusing on hypothetical scenarios ranging from animal disease outbreaks to the international tampering of dairy products. These drills helped to maintain the industry's state of readiness and reinforced the critical nature of steps taken within the first 24 hours of a crisis.

DMI continued its support for butter through cooperation and public relations activities with the American Butter Institute, including the web site www.butterisbest.com, a consumer resource center with current cooking trends and ideas, butter recipes, and links to other butter-related web sites. DMI also continued to work with the Wisconsin Milk Marketing Board to execute co-funded retail butter promotion activities. The national effort helped to drive incremental retail butter sales in select markets across the United States.

II. National Fluid Milk Processor Promotion Board

The National Fluid Milk Processor Promotion Board (Fluid Milk Board), as authorized in the Fluid Milk Act, administers a fluid milk promotion and consumer education program funded by fluid milk processors. The program is designed to educate Americans about the benefits of fluid milk, increase milk consumption, and maintain and expand markets and uses for fluid milk products in the contiguous 48 States and the District of Columbia. The fluid milk marketing programs are research-based and message-focused for the purpose of positively changing the attitudes and purchase behavior of Americans regarding fluid milk.

The U.S. Secretary of Agriculture appoints 20 members to the Fluid Milk Board. Fifteen members are fluid milk processors who each represent a separate geographical region, and five are at-large members. Of the five at-large members, at least three must be fluid milk processors and at least one must be from the general public. The members of the Fluid Milk Board serve 3-year terms and are eligible to be appointed to two consecutive terms. The Fluid Milk Order provides that no company shall be represented on the Board by more than three representatives.

The Milk Processor Education Program (MilkPEP) carries out the activities of the Fluid Milk Board.

The Fluid Milk Board elects four officers: chair, vice-chair, secretary, and treasurer. Fluid Milk Board members are assigned by the Chair to the Fluid Milk Board's occasion-based program committees. The program committees are responsible for setting program priorities, planning activities and projects, and evaluating results. The Fluid Milk Board maintains the Finance Committee that reviews all program authorization requests for funding sufficiency, the Fluid Milk Board's independent financial audit, and the work of the board's accounting firm. The Fluid Milk Board met three times during 2013 and three times during 2014.

The Milk Processor Education Program (MilkPEP) is funded by a 20-cent-per-hundredweight assessment on fluid milk products processed and marketed commercially in consumer-type packages in the contiguous 48 States and the District of Columbia. The program exempts from assessment those processors who process and market 3 million pounds or less of fluid milk products each month, excluding fluid milk products delivered to consumer residences.

Medical Advisory Board

The Fluid Milk Board's Medical Advisory Board (MAB), comprised of academic, medical, and health care professionals with expertise relevant to the health benefits of fluid milk, continued to meet in 2013 and 2014. The MAB provides guidance to the Fluid Milk Board's development of key nutritional and health messages for consumers and health professionals. As in previous years, the MAB members assisted the Fluid Milk Board in continuing relationships with health and health professional organizations such as the American Academy of Pediatrics, the Academy of Nutrition and Dietetics, and the American Heart Association. They also were featured as medical professionals in the media, providing science-based statements supporting the health benefits of fluid milk.

The MAB activities of the Fluid Milk Board also included preparing press materials and acting as spokespersons on breaking research relevant to fluid milk. The MAB continued to inform others in the scientific community about the strong research showing consuming milk after exercise can aid in muscle recovery and rehydration.

Fluid Milk Programs

Breakfast at Home – General Market and Hispanic

Breakfast represents the time of day when over half of daily fluid milk consumption occurs. Through its Breakfast at Home programs, MilkPEP sought to show the versatility milk can bring to the morning routine, including lattes, smoothies, cereal, and of course, milk as a stand-alone beverage. MilkPEP leveraged consumer research which shows that consumers would drink and serve more milk if the messaging clearly reinforced reasons to believe in consuming milk. The most compelling reason, according to the consumer research, was milk's 8 grams of protein per 8-ounce serving.

MilkPEP continued its Hispanic campaign as part of the industry's outreach to the growing Hispanic population. MilkPEP continued El Proyecto Desayuno (The Breakfast Project) to educate Hispanic parents on the value of milk at breakfast for everyone, not just children. During the Super Bowl, MilkPEP featured Victor Cruz of the New York Giants, in the "Breakfast Blitz." Bilingual point-of-sale materials, a 3-minute segment on the number-one Spanish-language morning show, Despierta America, as well as social media communications, supported the Breakfast Blitz. The program garnered 131 million impressions through traditional and social media.

In 2014, the Hispanic campaign also introduced consumers to MilkPEP's Great American Milk Drive through a separate launch event for Hispanic consumers to ensure the program's message resonated. The launch event generated more than 115 million impressions, reinforcing the message of milk's nutrition and helping ensure it reached families in need.

MilkPEP also focused on industry collaboration in 2014, partnering with DMI to leverage a partnership with Quaker Oats Company (Quaker) to implement the "Make it with Milk" program. The program encouraged consumers to increase their protein intake at breakfast by making their Quaker oatmeal with milk instead of water. Packages featured Quaker's iconic spokes character, Larry, with a first-time-ever altered image including a milk mustache.

MilkPEP debuted El Super Desayuna (The Super Breakfast), a television spot that focused on Hispanic moms and the power of milk's protein during breakfast. MilkPEP concentrated on certain time periods throughout the year, including Mother's day, by partnering with morning show host Karla Martinez. Martinez appeared in a milk mustache ad as well as digital videos to help engage Latina moms. During Hispanic Heritage month, MilkPEP also engaged the Hispanic community by having five of the top Hispanic mommy bloggers share milk-based recipes and in 2014, were able to use the mommy bloggers to share the Quaker "Make it with Milk" program with fans. This effort culminated in more than 35 million social media impressions.

MilkPEP also debuted its first major protein message to over 100 million consumers in 2013 during Super Bowl XLVII during its television commercial. The commercial featured Dwayne "The Rock" Johnson and showed how starting the day with milk's protein could give consumers strength to tackle obstacles throughout the day. The protein messaging continued beyond the Super Bowl and included the use of celebrity milk mustache print ads and shifted focus from milk's essential nutrients generally to specifically highlighting milk's protein. In addition to "The Rock," Katie Couric and Taye Diggs were featured in these protein-specific celebrity ads.

To build on the protein message, MilkPEP developed the Protein Fight Club. The campaign used humorous videos to convey that each 8-ounce serving of milk contains 8 grams of protein and shouldn't be overlooked at breakfast, especially when consumers are looking for fast, portable, and versatile options. The campaign was featured online and provided consumers with a chance to win a free gallon of milk each minute for an 8-week period. MilkPEP results showed the Protein Fight Club resonated equally among moms and dads, and provided the opportunity for MilkPEP to create messaging to appeal to parents in general and focus on milk's ability to fit into any lifestyle as family dynamics change.

In 2014, after 20 years of using the iconic got milk? Milk Mustache campaign, one of the most recognizable advertising campaigns in U.S. history, MilkPEP made the strategic decision to retire the “got milk?” campaign and launch its new, more contemporary, Milk Life campaign. The Milk Life campaign focuses on fluid milk and its nutritional benefits, including high-quality protein and its ability to help power the potential of every day. The Milk Life campaign included print, television, digital advertising, retail promotions, public relations, and social media all supporting the benefits of milk’s protein. Targeting television ads during National Collegiate Athletic Association (NCAA) March Madness and the Academy Awards show, as well as print ads in People magazine and Sports Illustrated, the Milk Life campaign garnered 71 million digital impressions, 191 million print impressions, and 1.6 billion paid impressions from Milk Life television advertisements in its first year.

In 2014, MilkPEP, in partnership with Feeding America®, launched the Great American Milk Drive, the first-ever national program designed to deliver nutrient-rich gallons of milk to families in need who struggle with food insecurity. Milk is one of the most requested, yet least donated, items at America’s food banks because it is perishable. As a result, Feeding America® is only able to provide, on average, less than 1 gallon of milk per person per year. MilkPEP’s Great American Milk Drive encourages consumers across the United States to donate milk to families in need through online or in-store donations. In 2014, 12 retailers, 31 milk companies, and more than 20 QPs participated in the program collecting over 143,000 gallons of milk at retail, and more than 292,000 total gallons were donated to Feeding America® families across the United States.

Refuel | Built with Chocolate Milk

MilkPEP continued to promote its chocolate milk message for exercise recovery to athletes in 2013, and, through additional research, identified a broader group of interested exercisers. To engage this new audience, MilkPEP teamed up with football star Hines Ward. As the face of chocolate milk, Ward trained to compete in the 2013 IRONMAN World Championship triathlon in Hawaii. Ward joined forces with two everyday athletes, chosen from hundreds of applicants, and a wounded warrior from the Challenged Athlete’s Foundation, to create the Become One Team. Together, the Become One team participated in a 7-month training and recovery regimen that included chocolate milk, with professional coaches and sports dietitians to prepare for the race. The Chocolate Milk Grassroots tour traveled across the country to 35 athletic racing events with IRONMAN, Rock ‘n’ Roll Marathon, and the Challenged Athletes Foundation. Processors were engaged in the race events and distributed over 299,000 samples of low-fat chocolate milk to athletes as they completed the races. Chocolate milk was also the Official Refuel Beverage of the USA Women’s Ski Jump Team and the USA Hockey Team. Both teams were featured in got chocolate milk? print, digital, and television ads.

In 2014, through research, MilkPEP was able to identify a broader group, about 30 million adults, of interested and persuadable exercisers to target with low-fat chocolate milk recovery after a tough workout. Launching the Built with Chocolate Milk program, the program no longer focused only on elite athletes, but also on athletes and exercisers nationwide seeking recovery after a tough workout. Under this program, MilkPEP launched the Mission Apollo: Built with Chocolate Milk program, following the training of short-course Olympic speed skater Apolo

Ohno and Women's Health fitness director, Jen Ator, as they prepared for the ultimate goal of completing the IRONMAN World Championship in Kona, HI. The webisodes and advertisements demonstrated their strength, endurance, and athletic pursuits, garnering 2 million video views on YouTube and 346 million total earned media impressions. The program reached a broad audience with the chocolate milk recovery message through media highlights including ESPN, NBC Sports, Men's Health, Huffington post, Triathlete magazine, and Sports Illustrated.

In continuing its partnership with the IRONMAN series and the Rock 'n' Roll Marathon in 2014, the Built with Chocolate Milk campaign was expanded to become the "Official Refuel Beverage" of the Iron Girl and Esprit de She race series. This program generated over 63 million total earned media impressions. Additionally, 25 milk companies participated in marquee grassroots events in 2014, distributing over 330,000 samples of low fat chocolate milk to approximately 327,000 athletes as they crossed the finish lines. The Built with Chocolate Milk campaign also continued to promote strong relationships with Team Chocolate Milk elite athletes, including Mirinda "Rinny" Carfrae, Craig "Crowie" Alexander, and Luke McKenzie, by supporting them on social media channels throughout 2014.

Business Development and Research

The Business Development and Research committee (BDR) is a joint effort of the Fluid Milk Board, processors, and suppliers. This ongoing effort was established to address barriers to fluid milk consumption not targeted by the advertising, promotions, and public relations activities. Over the years, BDR has conducted market tests and studies in various business channels to develop ways to increase milk sales and subsequently turn these studies into customer-friendly processor materials.

MilkPEP continued its commitment to conducting research and building the strategy for the consumer campaign. MilkPEP conducted research that shaped the direction of the consumer-facing breakfast program. In addition to the breakfast segmentation research, MilkPEP conducted additional research regarding the Refuel/Built with Chocolate Milk recovery message strategy to lead the effort in research campaign development. Ongoing efforts such as the Consumption Tracker, Attitude and Awareness Tracker, All Channel Tracking, and the Annual School Survey helped the industry keep a pulse on what is happening in milk consumption and helped develop new plans to drive better business practices. MilkPEP also continued the Nutrition News Bureau program, ensuring the positive research showing milk's benefits were reported in the media, as well as its Supermarket Registered Dietician program, reinforcing Supermarket Dieticians' understanding of the importance of milk and conveying milk's nutritional benefits in in-store programs.

Chapter 2

USDA Activities

The USDA's Agricultural Marketing Service's (AMS) Dairy Program has day-to-day oversight responsibilities for the Dairy Board and the Fluid Milk Board.

AMS Dairy Program's oversight activities include reviewing and approving the Dairy and Fluid Milk Boards' budgets, budget amendments, contracts, advertising campaigns, and investment plans. Approval of program materials is a major responsibility of AMS Dairy Program. Program materials are monitored for conformance with provisions of the respective Acts and Orders, the U.S. Dietary Guidelines for Americans, and other legislation. AMS Dairy Program also uses the "Guidelines for AMS Oversight of Commodity Research and Promotion Programs" to govern oversight and facilitate the application of legislative and regulatory provisions of the Acts and the Orders.

The AMS Dairy Program ensures that the collection, accounting, auditing, and expenditure of promotion funds are consistent with the enabling legislation and Orders; certifies Qualified Programs; and provides for the evaluation of the effectiveness of both promotion programs' advertising campaigns. AMS Dairy Program assists the boards in their assessment collection, compliance, and enforcement actions.

Other AMS Dairy Program responsibilities relate to nominating and appointing board members, amending the Orders, conducting referenda, public and industry communications, and conducting periodic management reviews. AMS Dairy Program representatives attend full board and committee meetings and other meetings related to the program.

Dairy Promotion and Research Program Oversight

Nominations and Appointments

The Dairy Board is composed of 38 members, including 36 domestic dairy producers and 2 dairy importers, who administer the program. Dairy Board members serve 3-year terms, with no member serving more than two consecutive terms. Dairy Board members must be active dairy producers or dairy importers. The Secretary selects dairy producer members from nominations submitted by producer organizations, general farm organizations representing dairy producers, Qualified Programs, or other interested parties. The Secretary selects dairy importer members from nominations submitted by individual importers of dairy products or by organizations representing dairy importers.

Collections

The Dairy Act specifies that each person making payments to a producer for milk produced in the United States and purchased from the producer should, in the manner prescribed by the Order, collect an assessment based upon the number of hundredweights of milk for commercial use handled for the account of the producer and remit the assessment to the Dairy Board. The current rate of assessment for dairy producers is 15 cents per hundredweight of milk for

commercial use or the equivalent thereof, as determined by the Secretary. In addition, the rate of assessment for imported dairy products prescribed by the order is 7.5 cents per hundredweight of milk for commercial use or the equivalent thereof, as determined by the Secretary.

The Dairy Act provides that dairy producers can direct up to 10 cents of their 15-cent-per-hundredweight assessment to Qualified Programs. For the years 2013 and 2014, the net Dairy Board assessment was approximately 5.03 cents and 5.15 cents, respectively, per hundredweight of milk marketed. The Dairy Act also provides that dairy importers can designate 2.5 cents of their 7.5-cent per hundredweight assessment to Qualified Programs. If dairy producers or dairy importers do not specify designation to a Qualified Program, then the entire assessment is retained by the Dairy Board for use by the national program.

Contracts

The Dairy Act and Dairy Order require all contracts expending assessment funds be approved by the Secretary. The Dairy Program reviewed and approved 318 agreements, amendments, and annual plans in 2013. During 2014, the Dairy Program reviewed and approved 395 agreements, amendments, and annual plans.

Contractor Audits

In 2013 and 2014, DMI retained the certified public accounting firm of Ernst & Young to audit the records of the following contractors: IntNet; Domino's Pizza, Inc.; MMS Education, Inc.; NPD Group, Inc.; University of Wisconsin-Madison; Almanac Systems, LLC; Keren Fiorenza; Watson Green, LLC; Intersport, Inc.; and American Mexican Marketing. No material exceptions were found.

USDA Foreign Agricultural Service

The Secretary of Agriculture has delegated oversight responsibility for all foreign market development activities outside the United States to the Foreign Agricultural Service (FAS) (7 CFR 2.43(a) (24)). FAS reviews the USDEC foreign market development plan and related contracts. AMS Dairy Program also reviews USDEC contracts to ensure conformance with the Dairy Act, Dairy Order, and with established USDA policies. AMS Dairy Program approved a total of 90 USDEC contracts in 2013 and approved 103 USDEC contracts in 2014.

Organic Exemption

Effective February 14, 2005, any persons producing and marketing solely 100 percent organic products were exempted from paying assessments to any research and promotion program administered by the AMS (70 FR 2743, published January 14, 2005). The final rule amended Section 1150.157 of the Dairy Order. The amount of exempted assessments in 2013 and 2014 was approximately \$1,010,000 and \$1,030,000, respectively. In States having mandatory assessment laws, organic dairy producers are exempt only from the Federal assessment. Organic producers are still responsible for remittance of State assessments. The Dairy Order requires organic producers to re-apply annually to continue to receive the exemption.

USDA Dairy Promotion and Research Program Expenses

Per the Dairy Board's enabling legislation, the Dairy Board reimburses the AMS Dairy Program for the cost of administrative oversight and compliance audit activities. In 2013, the AMS Dairy Program's oversight expenses totaled \$611,026 and the Federal Milk Market Administrators incurred \$204,605 in expenses for verification audits conducted on behalf of the Dairy Board. In 2014, the AMS Dairy Program's oversight expenses totaled \$644,129 and the Federal Milk Market Administrators incurred \$199,707 in expenses for verification audits conducted on behalf of the National Dairy Board.

Qualified Programs

Qualified Programs are State, regional, or importer organizations conducting dairy product promotion, research, or nutrition education programs, authorized by Federal or State law, or were active programs prior to the Dairy Act. In 2013 and 2014, the AMS Dairy Program reviewed applications for continued qualification from 64 Qualified Programs. A list of the active Qualified Programs is provided in Chapter 7. Consistent with its responsibility for monitoring the Qualified Programs, the AMS Dairy Program obtained and reviewed income and expenditure data from each program. The data reported from each Qualified Program are included in aggregate for 2013 and 2014 in Chapter 7.

National Fluid Milk Processor Promotion Board Oversight

Nominations and Appointments

The 20 members of the Fluid Milk Board serve 3-year terms, with no member serving more than 2 consecutive terms. The Fluid Milk Promotion Order (Fluid Milk Order) provides that no company shall be represented on the board by more than three representatives. Fluid Milk Board members who fill vacancies with a term of 18 months or less may serve two additional 3-year terms. The Secretary selects Fluid Board members from nominations submitted by fluid milk processors, interested parties, and eligible organizations.

Program Development

For the years 2013 and 2014, the Fluid Milk Board contracted directly with MGSCOMM and the Interpublic Group Agencies of FCB; Lowe Campbell Ewald, Weber Shandwick, Deutsch Worldwide, Inc., and Draft FCB., to develop its mom and teen advertising, promotions, consumer education/public relations, and Hispanic advertising/public relations.

Collections

The Fluid Milk Act specifies that each fluid milk processor shall pay an assessment on each unit of fluid milk product processed and marketed commercially in consumer-type packages. The current rate of assessment is 20 cents per hundredweight of fluid milk products marketed.

Contracts

The Fluid Milk Act and Fluid Milk Order require all budgets and contracts expending assessments be approved by the Secretary. Fluid Milk Board agreements, amendments, and annual plans totaled 94 approvals in 2013 and 152 approvals in 2014. Chapter 6 lists the contractors and corresponding board initiatives approved by USDA.

Contractor Audits

The Fluid Milk Board retained the certified public accounting firm of Snyder, Cohn, Collyer, Hamilton & Associates, P.C. (Snyder Cohn), in 2013 and 2014 to audit the records of: Lowe Campbell Ewald, MGSCOMM, Weber Shandwick, Draft FCB, and Deutsch Worldwide, Inc. Snyder Cohn's engagement and agreed-upon procedures were to determine if the agencies had conformed to the financial and regulatory compliance requirements specified in their individual agreements with the Fluid Board. No material exceptions were found.

USDA Fluid Milk Processor Promotion Program Expenses

Per the Fluid Milk Board's enabling legislation, the Fluid Milk Board reimburses USDA for the cost of administrative oversight and compliance audit activities. In 2013, the AMS Dairy Program's oversight expenses totaled \$409,657 and the Federal Milk Market Administrators incurred \$79,068 in expenses for verification audits conducted on behalf of the Fluid Milk Board. In 2014, the AMS Dairy Program's oversight expenses totaled \$396,045 and the Federal Milk Market Administrators incurred \$85,268 in expenses for verification audits conducted on behalf of the Fluid Milk Board.

Chapter 3

Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the Dairy Promotion and Research Program and the Fluid Milk Processor Promotion Program

Introduction

The Dairy and Fluid Milk Acts require an annual independent analysis of the advertising and promotion programs that operate to increase consumer awareness and sales of fluid milk and dairy products. Texas A&M University researchers were awarded a competitive contract to complete the study. Chapter 3 summarizes the quantitative evaluation of the effectiveness of the Dairy and Fluid Milk Promotion Programs.

Background on the Promotion Programs

The Dairy Promotion and Research Program is a coordinated research and promotion program to maintain and expand domestic and foreign markets for fluid milk and dairy products. To fund the program, U.S. dairy producers pay a 15-cent-per hundredweight assessment on milk marketing and importers pay 7.5 cent-per hundredweight assessment, or equivalent thereof, on dairy products imported into the United States. Dairy Management Inc. (DMI), a management and staffing corporation, is a joint undertaking between the National Dairy Promotion and Research Board (Dairy Board) and the United Dairy Industry Association (UDIA). UDIA is a federation of 19 of the 63 Qualified Programs (QPs) under the direction of a board of directors. The mission of DMI is to drive increased sales of and demand for dairy products and ingredients, on behalf of dairy producers and dairy importers. DMI works proactively in partnership with leaders and innovators to increase and apply knowledge that leverages opportunities to expand dairy markets.

QPs are State, regional, local, or importer promotion programs certified annually by the Secretary of Agriculture to receive a portion of the funds generated under the Dairy Promotion and Research Program.

The Fluid Milk Processor Promotion Program, or Fluid Milk Promotion Program develops and finances generic advertising programs designed to maintain and expand markets and uses for fluid milk products produced in the United States. Fluid milk processors marketing more than 3 million pounds of fluid milk per month pay a 20-cent-per-hundredweight assessment on fluid milk processed and marketed in consumer-type packages in the United States. The Fluid Milk Processor Education Program (MilkPEP) is the staffing organization that carries out the promotion programs on behalf of the Fluid Milk Promotion Program.

The Dairy Promotion and Research Program, funded by dairy producers and dairy importers, and the Fluid Milk Processor Promotion program, funded by fluid milk processors, are hereinafter referred to as the National Programs.

Objectives of the Evaluation Study

The National Programs are evaluated with the key question in mind: Have the demand-enhancing activities conducted by dairy producers, importers, and fluid milk processors actually increased the demand for fluid milk and dairy products?

Historically, this question has been answered through econometric studies on the relationships between consumption of dairy products and promotion program demand-enhancing expenditures. These demand relationships are estimated in a structure that controls for the impacts of market forces. Economic returns to dairy producers, importers, and fluid milk processors that result from promotion activities and the associated changes in consumption are calculated using the parameters obtained from the demand models. The summary indicator of economic return on investment is a benefit-cost-ratio (BCR).

The objectives of this report are threefold:

1. Determine the combined effects of the program activities of MilkPEP, DMI, and QPs on the consumption of fluid milk, cheese, butter, all dairy products, and dairy exports;
2. Develop and implement a simulation model to calculate BCRs for dairy producers and fluid milk processors; and
3. Quantitatively assess the impacts of the DMI partnership with McDonald's involving specialty coffee.

This project covers the time period from 1995 to 2013 and captures the joint efforts of DMI, MilkPEP, and QPs. It is important to note that the import assessment funding is included in the 2012 and 2013 aggregate data for fluid milk and dairy products, but there were insufficient data to separately assess their impact on consumer demand².

Summary of the Findings

The overall finding of this evaluation is that the National Programs have effectively increased the demand (domestic and exports) for dairy products. The gains in profit at the farm level were far larger than the costs associated with the National Programs combined. The impacts on producers as well as on fluid milk processors' spending are summarized with BCRs. The BCRs are based on the demand-enhancing expenditures only; therefore they do not account for certain operating expenses such as overhead, technical support, and industry relations.

The BCRs expressed in terms of producer profit at the farm level were calculated to be \$3.98 for every dollar invested in demand-enhancing activities for fluid milk; \$6.21 for every dollar invested in demand-enhancing activities for cheese; and \$29.49 for every dollar invested in demand-enhancing activities for butter. The BCR of export promotion is \$5.58 per dollar invested. Under both the aggregated fat and skim solids basis, a significant positive relationship exists between the demand for dairy and the National Programs' expenditure, in both the short run and the long run. The aggregate, all-dairy BCR is 5.53, meaning that the producer profit increases by \$5.53 for each one-dollar investment in demand-enhancing activities.

² Since the data is quarterly there would not be enough data points to perform an econometric estimation.

The partnership between DMI and McDonald's was effective in stimulating additional servings of specialty coffee. Over the period of the partnership, close to 10 percent of McCafe servings were found to be associated with partnership expenditures. The cumulative impacts of this partnership were spread over a period of 7 months. Hence, evidence exists to indicate DMI is helping increase fluid sales by innovating and growing through partnering with quick-serve restaurants (QSRs) such as McDonald's.

Since cost-of-production data are unavailable for fluid milk processors, the fluid milk processor BCR is calculated using the milk cost as a proxy for cost of production. The BCR in terms of a fluid milk processor is a \$4.88 return to fluid milk processors for every dollar invested in demand-enhancing activities for fluid milk.

With regard to methodology, the structural econometric models that are the basis for these findings are statistically valid and consistent with prior studies in the literature on evaluation of generic commodity promotion.

DMI, MilkPEP, and QP Promotion Program Expenditures

The data for this analysis were acquired from DMI, MilkPEP, and QPs. The demand-enhancing expenditures from all three entities were aggregated.

The National Programs use advertising as well as other means to influence consumers. Advertising dollars are directed to media outlets, including television, outdoor, print, radio, and the internet. Marketing activities other than advertising are directed at the retail level of the marketing channel or at intermediaries. The non-advertising marketing expenditures include health and nutrition education programs; public relations; food service and manufacturing programs; sales promotion programs; school milk programs; school marketing activities; retail programs; child nutrition and fitness initiatives; and single-serve milk promotion.

Certain promotion expenditures are not directed at the retail level of the marketing channel; these types of expenditures include crisis management, trade service communications, and strategic research activities. These expenditures are classified as demand-enhancing expenditures. Expenditures for overhead, technical support, and industry relations are excluded from this analysis because they are not primarily demand-enhancing.

Over the past several years, the DMI Board of Directors changed its marketing strategy to focus more on partnerships within the dairy industry to increase demand for fluid milk, manufactured dairy products, and dairy ingredients. Currently, DMI's strategies include working with and through specific partners to achieve sustainable, category-level sales impacts; attract partner co-investment to fund demand-enhancing efforts; and maximize resources and impacts in increasingly competitive markets. These efforts include co-developing marketing information, research, business models, and best practices that can be used by the industry to increase sales of fluid milk and dairy products.

Annual promotion program expenditures made by DMI, MilkPEP, and QPs over the period 1995 to 2013 are depicted in Table 3-1 and in Figure 3-1. On average, slightly more than \$350 million

in total was spent annually by the respective entities over this period and close to \$400 million each year from 2011 to 2013. Median DMI expenditures were close to \$90 million per year, ranging from \$65.3 million to \$99.7 million. Similarly, median MilkPEP expenditures were about \$95 million per year, ranging from \$38.7 million to \$101.9 million. Finally, median expenditures made by QPs were about \$173 million per year.

The data associated with the demand-enhancing activities initiated by DMI and MilkPEP are also available on a quarterly basis. QP data are only available on an annual basis. To estimate quarterly data for the QPs, the seasonal nature of DMI and MilkPEP expenditure data is assumed to be similar to the QP expenditure data. Consequently, the seasonal factors associated with the DMI and MilkPEP data are obtained and applied to the annual QP data to arrive at quarterly expenditures. The estimation of these data on a quarterly basis is important in allowing for sufficient observations to conduct the econometric analysis of demand for dairy products.

Nominal seasonally adjusted demand-enhancing expenditures by DMI, MilkPEP, and QPs for all dairy products (fluid and manufacturing) combined on a quarterly basis from 1995 to 2013 are exhibited in Figure 3-2. These demand-enhancing expenditures varied from \$50.9 million to \$96.7 million per quarter, averaging \$66.8 million.

Table 3-1. Annual Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Promotion Program Expenditures, 1995 to 2013*

Year	DMI	MilkPEP	QPs	Total
1995	\$88,105	\$43,654	\$160,832	\$292,592
1996	\$99,674	\$38,690	\$159,600	\$297,964
1997	\$93,859	\$101,850	\$160,379	\$356,088
1998	\$97,570	\$100,901	\$158,348	\$356,819
1999	\$90,055	\$97,023	\$161,161	\$348,238
2000	\$88,068	\$95,158	\$169,654	\$352,880
2001	\$96,185	\$95,112	\$169,967	\$361,264
2002	\$92,012	\$93,511	\$174,857	\$360,380
2003	\$87,301	\$95,688	\$165,973	\$348,962
2004	\$82,871	\$97,167	\$172,667	\$352,705
2005	\$76,125	\$83,527	\$175,081	\$334,733
2006	\$65,296	\$92,030	\$182,443	\$339,768
2007	\$74,623	\$101,125	\$190,289	\$366,037
2008	\$99,051	\$97,003	\$181,091	\$377,145
2009	\$94,071	\$95,109	\$187,992	\$377,172
2010	\$87,512	\$98,316	\$166,459	\$352,287
2011	\$88,456	\$91,289	\$214,758	\$394,503
2012	\$82,360	\$91,893	\$216,484	\$390,736
2013	\$93,184	\$89,633	\$216,844	\$399,662

*Thousands of dollars

Source: Dairy Management, Inc., Milk Processor Education Program, and U.S. Department of Agriculture

Figure 3-1. Annual Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Promotion Expenditures, 1995 to 2013

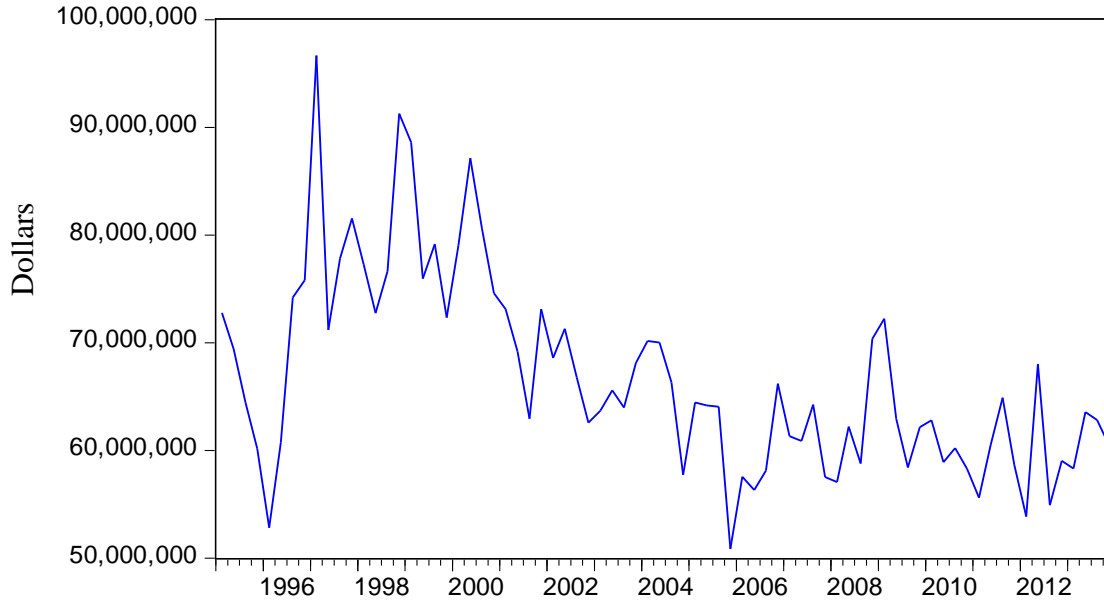


Source: Dairy Management, Inc., Milk Processor Education Program, and U.S. Department of Agriculture

Nominal seasonally adjusted demand-enhancing expenditures for fluid milk from DMI, MilkPEP, and QPs on a quarterly basis from 1995 to 2013 are exhibited in Figure 3-3. From 1995 to 2006, nominal seasonally adjusted quarterly promotion-program expenditures for fluid milk ranged from roughly \$24.2 to \$62.9 million per quarter. After 2006, promotion-program expenditures for fluid milk fell noticeably, ranging from \$23.5 to \$32.3 million per quarter. On average over the period from 1995 to 2013, nominal seasonally adjusted demand-enhancing expenditures for fluid milk were \$34.5 million per quarter.

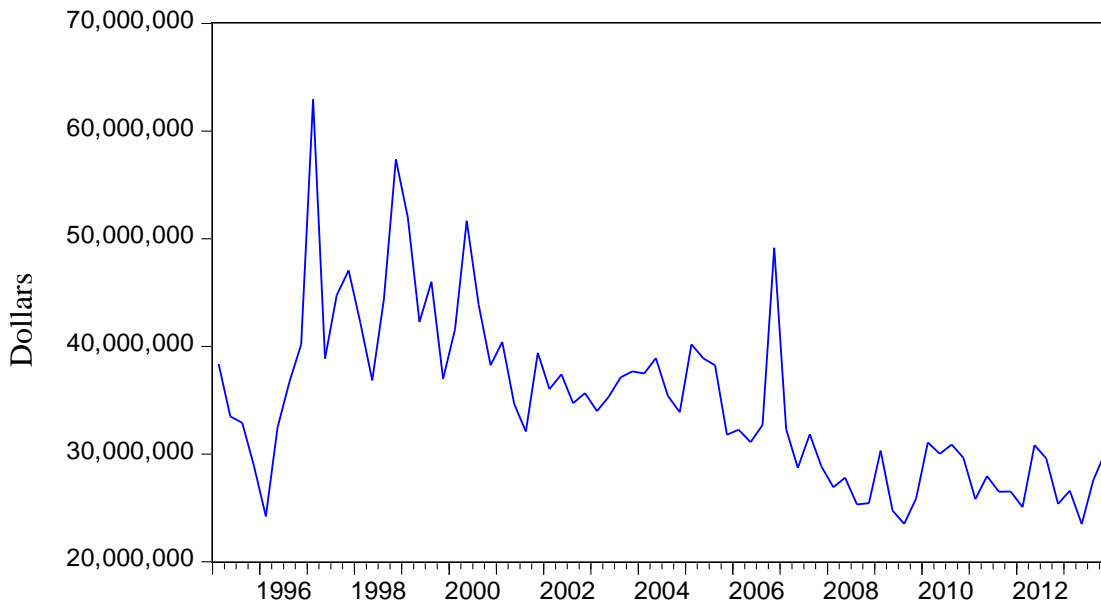
As exhibited in Figure 4, nominal seasonally adjusted demand-enhancing expenditures for cheese ranged from \$12.8 to \$27.6 million from 1995 to 2004, averaging \$21.5 million per quarter. From 2005 to the third quarter of 2008, promotion expenditures associated with cheese were much smaller compared to the period from 1995 to 2004. On average, expenditures on cheese marketing and promotion were \$12.0 million during the period. Expenditures on cheese increased from the fourth quarter of 2008 to the end of 2013. During this latter timeframe, nominal quarterly expenditures on cheese marketing and promotion activities ranged from \$9.0 to \$18.9 million, averaging \$12.6 million per quarter. Over the period 1995 to 2013, nominal seasonally adjusted demand-enhancing expenditures for cheese averaged \$17.2 million per quarter.

Figure 3-2. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Expenditures for All Dairy Products, 1995.1 to 2013.4*



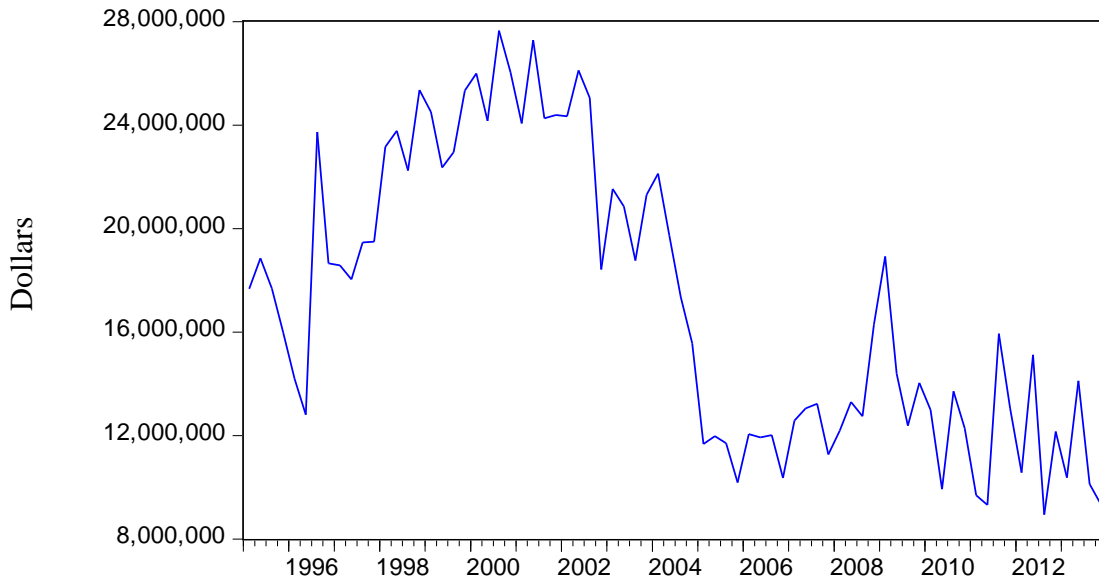
*Includes expenditures not only for advertising and promotion but also for dairy foods and nutrition research, nutrition education, and market and economic research.
 Source: Dairy Management, Inc., Milk Processor Education Program, and U.S. Department of Agriculture

Figure 3-3. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., and Qualified Program Expenditures for Fluid Milk, 1995.1 to 2013.4



Source: Dairy Management Inc., Milk Processor Education Program, Qualified Programs, and calculations by the authors.

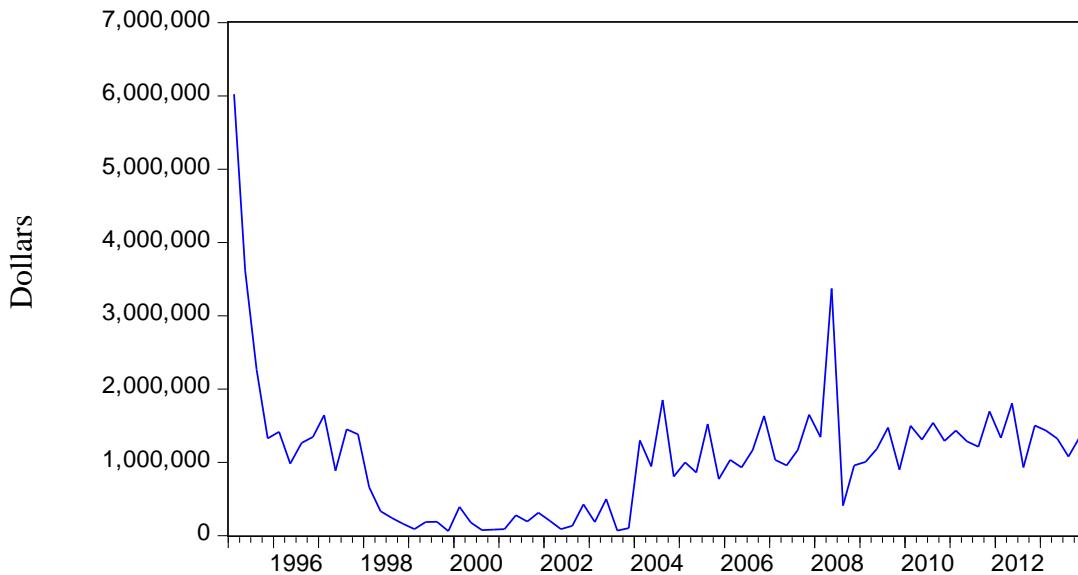
Figure 3-4. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., and Qualified Program Expenditures for Cheese, 1995.1 to 2013.4



Source: Dairy Management, Inc., Qualified Programs, and calculations by the authors.

As shown in Figure 3-5, nominal seasonally adjusted demand-enhancing quarterly expenditures on marketing and promotion of butter ranged from close to \$60,000 to \$6 million, averaging slightly more than \$1 million per quarter over the period 1995 to 2013. Marketing and promotion expenditures for butter are a fraction of comparable expenditures for fluid milk and cheese.

Figure 3-5. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., and Qualified Program Expenditures for Butter, 1995.1 to 2013.4

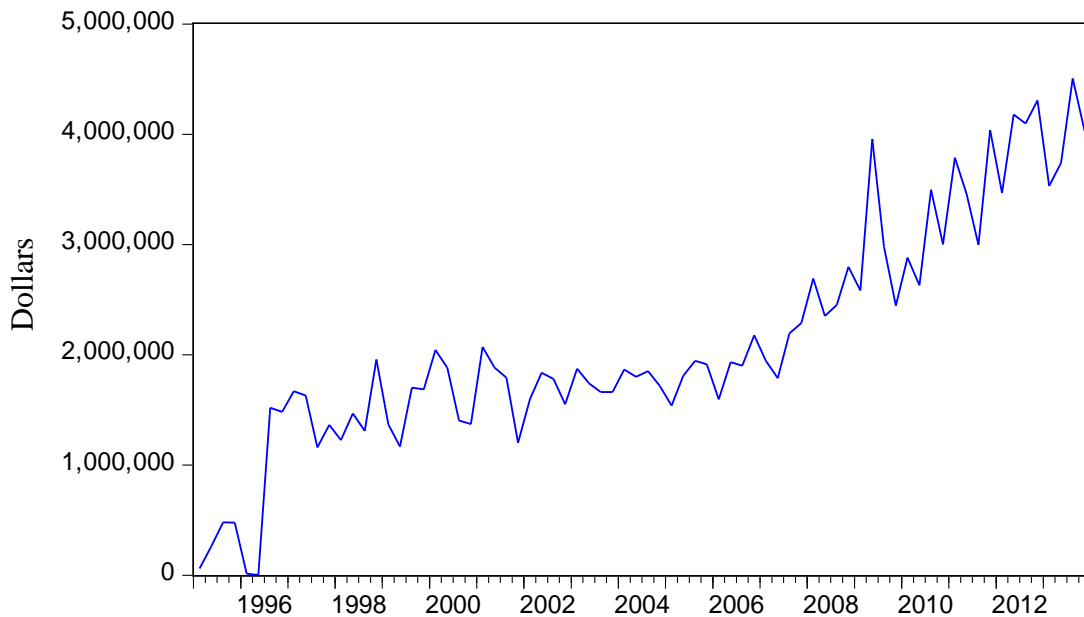


Source: Dairy Management, Inc., Qualified Programs, and calculations by the authors

Beginning in 2006, DMI transitioned from featuring milk, cheese, and butter in product-specific promotions to broader campaigns that relate to a number of dairy products. As a result of an increasing number of campaigns affecting multiple products, it is important to assess demand enhancements for the aggregate of dairy products as well as within specific product markets.

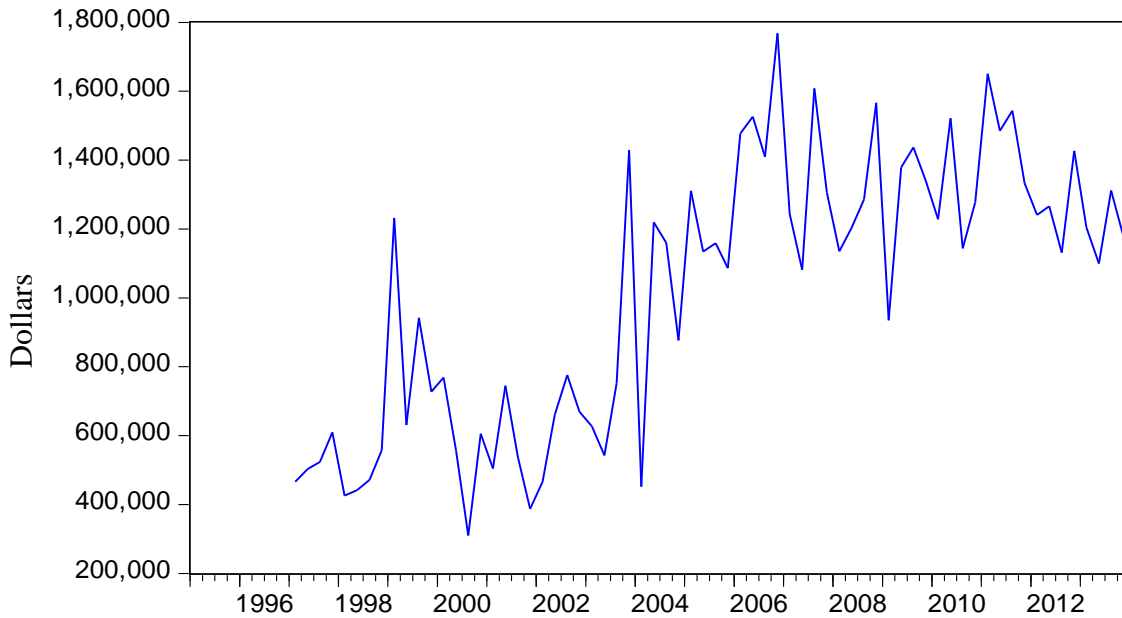
Global dairy markets are another area in which promotion program funds are invested. The export promotion programs as analyzed by this analysis are shown in Figure 3-6a. Nominal seasonally adjusted DMI expenditures directed to dairy exports on a quarterly basis ranged from just under \$800 to approximately \$5 million. The trend in these DMI expenditures has been upward from 1995 to 2013, averaging about \$2.1 million per quarter over this period. As exhibited in Figure 3-6b, nominal seasonally adjusted USDA Foreign Agricultural Service (FAS) funds awarded through the Foreign Market Development and Market Access Programs on a quarterly basis varied from just under \$310,000 to about \$1.8 million over the period of 1997 to 2013. On average, USDA FAS funds were nearly \$1 million per quarter. As presented in Figure 3-6c, nominal seasonally adjusted DMI as well as USDA FAS funds ranged from \$882 to \$5.8 million per quarter, averaging \$3.0 million on a quarterly basis from 1995 to 2013.

Figure 3-6a. Nominal Seasonally Adjusted Dairy Management, Inc., Expenditures Directed to Exports of Dairy Products, 1995.1 to 2013.4



Source: Dairy Management, Inc., and calculations by the authors.

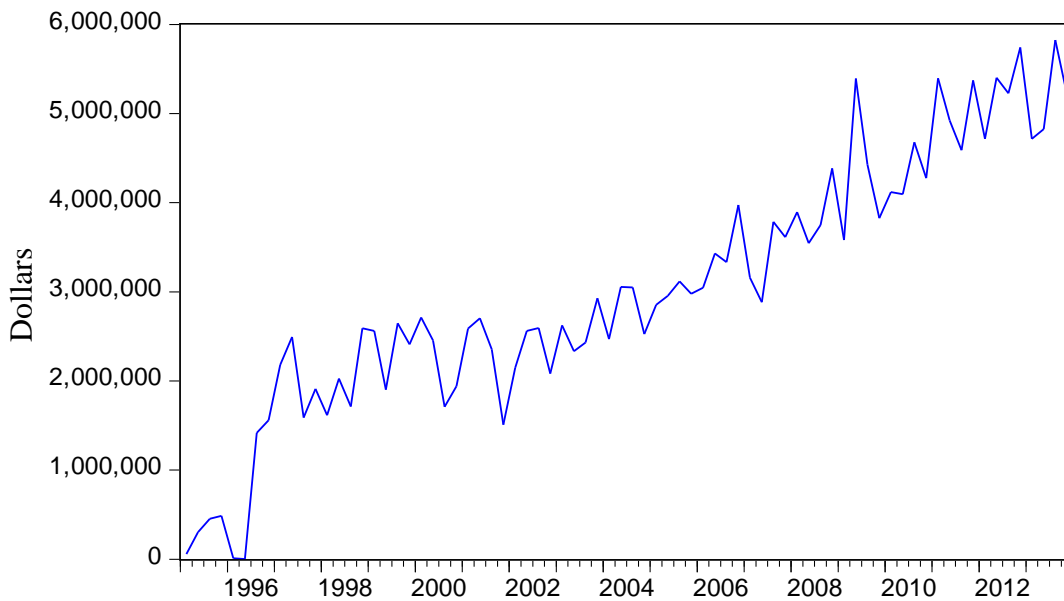
Figure 3-6b. Nominal Seasonally Adjusted U.S. Department of Agriculture Foreign Agricultural Service Funds Awarded to be directed to Exports of Dairy Products, 1997.1 to 2013.4*



*Data were not available prior to 1997. Also, only annual data were available for 1997 and 1998. Quarterly interpolations were made for these years.

Source: U.S. Department of Agriculture, Foreign Agricultural Service and calculations by the authors.

Figure 3-6c. Nominal Seasonally Adjusted Dairy Management, Inc., and U.S. Department of Agriculture Foreign Agricultural Service Funds Directed to Exports of Dairy Products, 1995.1 to 2013.4



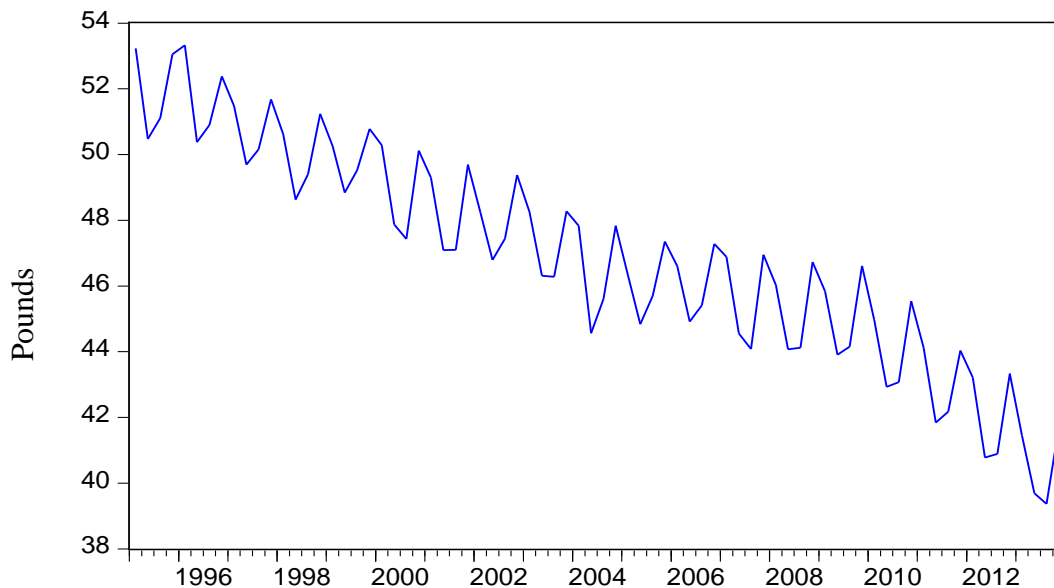
Source: Calculations by the authors.

Trends in Consumption

On average, over the 1995 to 2013 period, quarterly per capita consumption (measured by combining domestic commercial disappearance and imports) of butter, cheese, and fluid milk was 1.2 pounds, 7.9 pounds, and 46.9 pounds, respectively. The range of quarterly consumption for butter was from 0.9 pounds to 1.7 pounds, for cheese from 6.5 pounds to 9.5 pounds, and for fluid milk from 39.4 pounds to 53.3 pounds. Cheese consumption per capita has grown modestly. Fluid milk consumption has been trending down over the period, on a per-capita basis (Figures 3-7 to 3-11). Recent research found that declining consumption reflects changes in the frequency of fluid milk intake, rather than changes in portions (Stewart, Dong, and Carlson, 2013). The majority of Americans born in the 1990s tend to consume fluid milk less often than those born in the 1970s, who in turn consume fluid milk less often than those born in the 1950s. U.S. milk consumption has declined 25 percent since 1975 due to changing consumption habits as well as increased competition from other beverages.

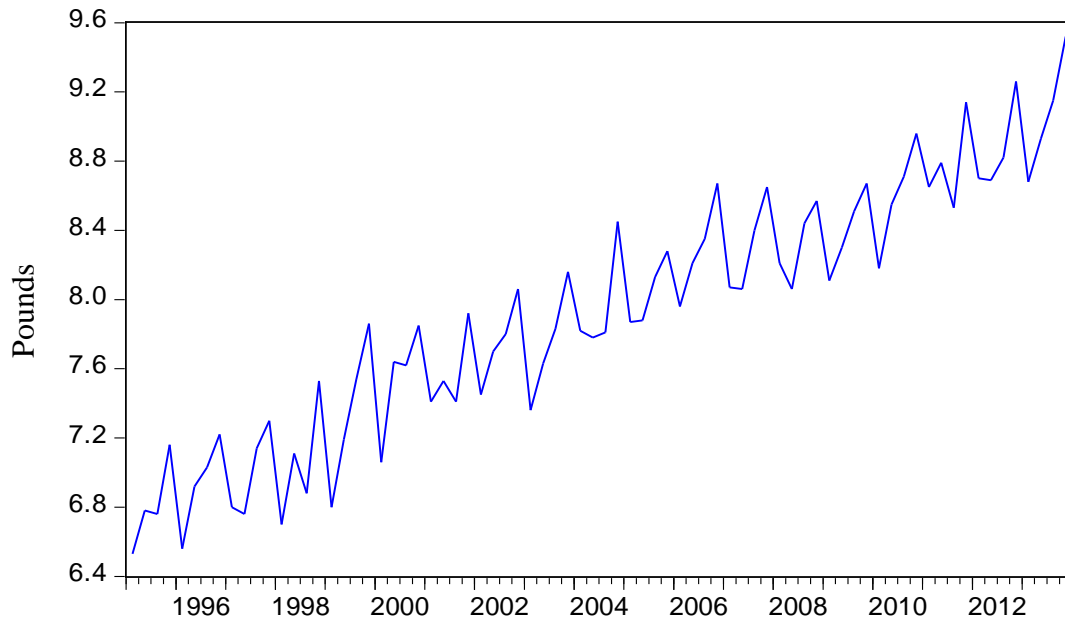
Total U.S. dairy exports grew over the 1995 to 2013 period largely due to strong growth in exports of low-fat dairy products like nonfat dry milk. On a milk-equivalent skim-solids basis, the growth in U.S. dairy exports has been manifestly exponential, from an average 1.3 billion pounds per quarter in 1995 to just over 9.6 billion pounds on average per quarter in 2013 (Figure 3-12). Over the same period, however, measured on a milk-equivalent fat basis, average quarterly U.S. dairy exports followed a positive but less robust trend from a quarterly average of 765 million pounds in 1995 to nearly 3.1 billion pounds in 2013 (Figure 3-12).

Figure 3-7. Per Capita U.S. Consumption of Fluid Milk, 1995.1 to 2013.4



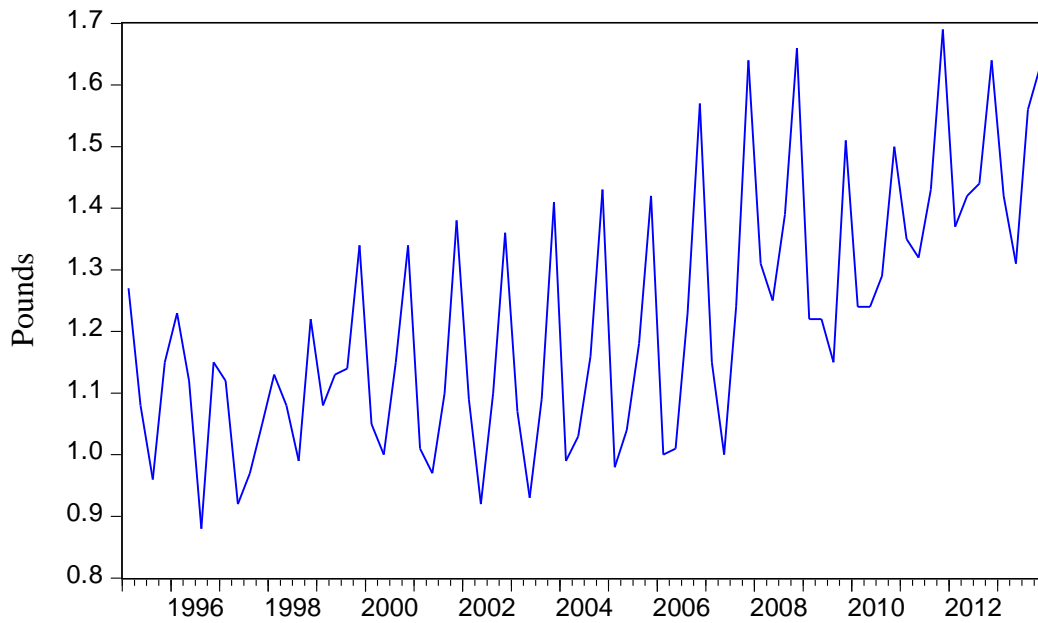
Source: U.S. Department of Agriculture

Figure 3-8. Per Capita U.S. Consumption of Cheese, 1995.1 to 2013.4



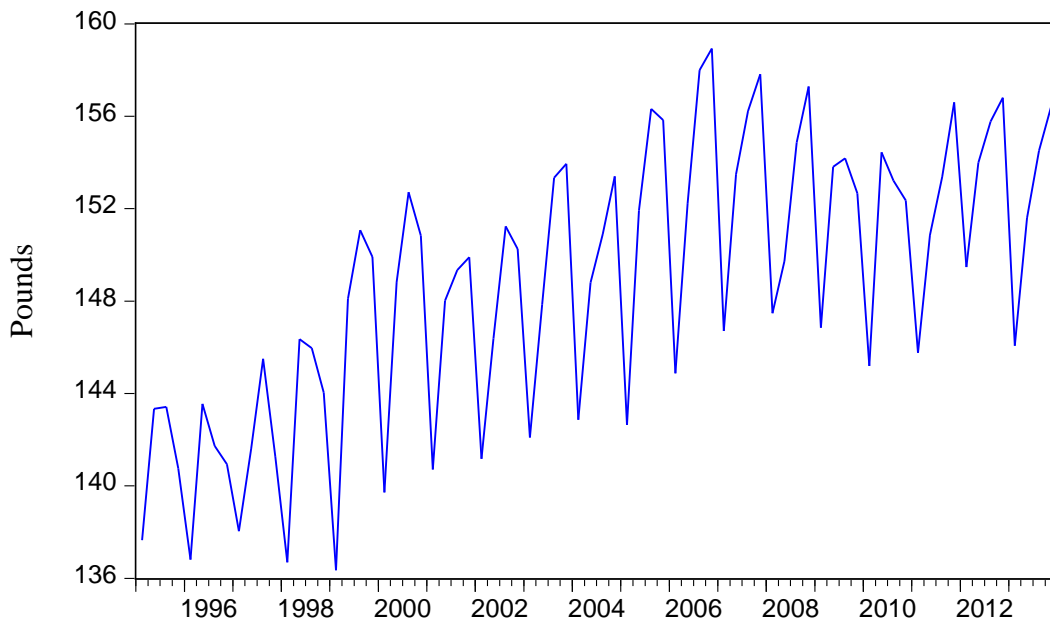
Source: U.S. Department of Agriculture

Figure 3-9. Per Capita U.S. Consumption of Butter, 1995.1 to 2013.4



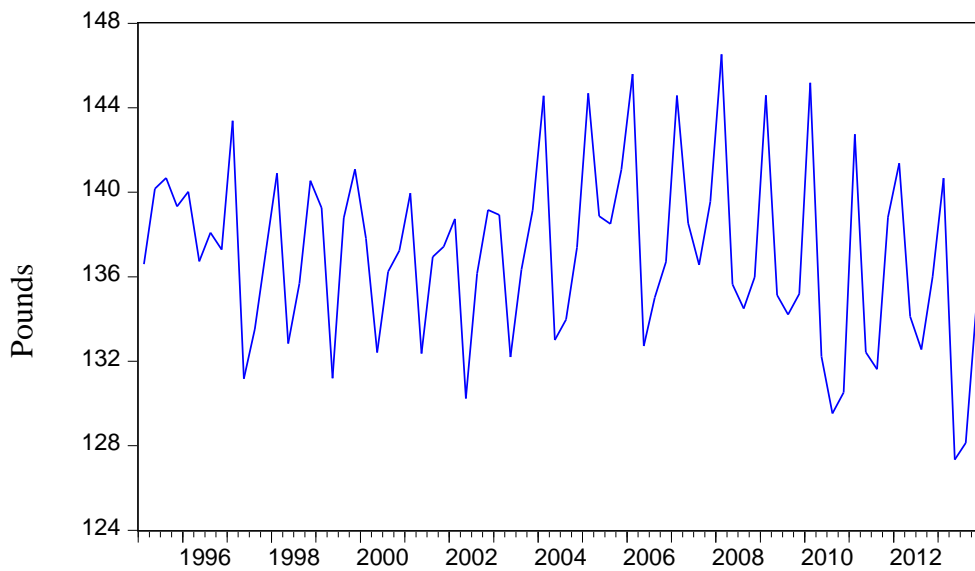
Source: U.S. Department of Agriculture

Figure 3-10. Per Capita U.S. Consumption of All Dairy Products on a Milk-Equivalent Fat Basis, 1995.1 to 2013.4



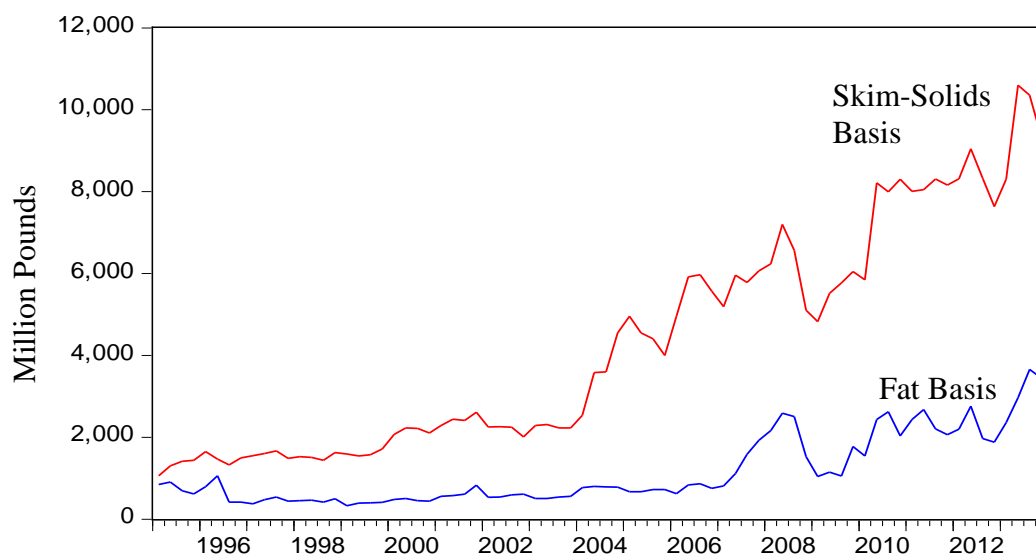
Source: U.S. Department of Agriculture and calculations by the authors

Figure 3-11. Per Capita U.S. Consumption of All Dairy Products on a Skim-Solids Basis, 1995.1 to 2013.4



Source: U.S. Department of Agriculture and calculations by the authors

Figure 3-12. U.S. Dairy Commercial Exports on a Milk-Equivalent-Fat Basis and Skim-Solids Basis, 1995.1 to 2013.4



Source: U.S. Department of Agriculture and calculations by the authors

Overall, the long-run trend of declining consumption of fluid milk is continuing, while per capita consumption of other dairy products has been growing. Given this setting, the analysis must address whether consumers responded to the demand-enhancing expenditures associated with the National Programs. Structural economic models were developed to isolate the sensitivity of consumers to the demand-enhancing expenditures from the effects of fundamental economic forces such as price and income. The results are reported in the next section.

Findings on Impacts of Demand-Enhancing Expenditures for Dairy Products

This evaluation study indicates a significant positive association between promotion program expenditures and consumer demand. This association holds for all dairy products in the aggregate and for fluid milk, cheese, butter, and the activities of the Dairy Research and Promotion Program and the Fluid Milk Processor Promotion Program individually. The impact is modest during the quarter in which expenditures are made, while the cumulative impact is over time measurably larger.

The key indicator of the impact of marketing and promotion expenditures is a measure of the relative sensitivity of consumer demand to demand-enhancing expenditures. This measure, also known as elasticity, is defined as the percentage change in consumption given a 1-percent change in demand-enhancing expenditures, while holding all other variables constant.

Attention is centered on the retail level of the marketing chain, and the economic model provides structural parameter estimates that are statistically valid and consistent with prior studies in the literature on evaluation of generic commodity promotion. This analysis allows the promotion elasticities to vary over time, with variation in expenditures. Some of the key findings of the

economic analysis are as follows:

- Demand-enhancing expenditures have a significant positive impact on domestic consumption of dairy products. (Domestic consumption is defined as domestic commercial disappearance plus imports.)
- The dairy markets were more responsive to demand-enhancing expenditures in comparison to last year.

The demand responsiveness to promotion was allowed to vary over time. Further, the cumulative impact of promotion was also identified. It was found that demand-enhancing expenditures affect the market for cheese for up to 6 quarters. The lagged effect on fluid milk was over 16 quarters, and for butter, the lagged effect was over 11 quarters. For the aggregate of all dairy products, the lagged effect persisted for 9 quarters on a fat basis and for 12 quarters on a skim-solids basis.

To measure the effects of DMI export promotion enhancement expenditures on U.S. dairy commercial exports, two U.S. dairy export demand models were specified and estimated using two different measures of dairy exports: (1) the measure of dairy exports on a milk-equivalent-skim-solids basis (SSB) supplied by USDA; and (2) the measure of dairy exports on a milk-equivalent-fat basis (FB) supplied by USDA. Simply put, when U.S. prices are low (high) relative to Oceania export prices, more (less) is exported.³

Table 3-2. Estimates of the Sensitivity of Demand to Promotion, Prices, and Income, 1995 to 2013

	Promotion 1995 to 2013	Promotion 2013 only	Own-Price Elasticity	Income Elasticity
Butter¹	0.057	0.067	-0.275	0.496
Cheese¹	0.037	0.027	-0.124	0.244
Fluid milk¹	0.090	0.071	-0.059	0.138
All dairy¹				
Skim-solids basis	0.071	0.061	-0.086	0.270
Fat basis	0.036	0.031	-0.051	0.359
Exports¹				
Skim-solids basis	0.058	0.058	-0.248	0.741
Fat basis	0.068	0.068	-0.196	1.023
Partnership²	0.083	0.135	-0.693	NA

The parameters entitled “Promotion” are elasticities with respect to demand-enhancing expenditures. The first column is for the entire period and incorporates cumulative lagged effects. The second column is for the immediate response in 2013.

¹Over the time period January 1995 to December 2013.

²Partnership to promote specialty coffee, over the time period March 2007 to December 2013.

³ Drivers of demand included lags of the ratio of the Oceania export butter price to the U.S. butter price on a fat basis; lags of the ratio of the Oceania export price for skim milk powder (SMP) to the U.S. nonfat dry milk (NDM) price on a skim-solids basis; lags of the measure of world income calculated as the trade weighted, real gross domestic products of major importing countries; and inertia or stickiness of dairy exports in world markets.

The lag length for export promotion expenditures on an SSB was estimated to be nine quarters. The export promotion expenditure elasticity was calculated to be 0.058 in the sample period, indicative of a statistically significant effect of promotion. The lag length for the export promotion expenditures on a milk-fat basis was estimated to be 6 quarters. The export promotion expenditure elasticity was calculated to be 0.068, indicative once again a statistically significant effect of promotion.

Estimation of Consumption Changes Attributed to Promotion Program Expenditures

The primary objective of the analysis provided in this section is to answer the key question regarding the National Programs over time: what have been the effects of dairy promotion programs on the domestic consumption of fluid milk, dairy products, and exports? In answering the key question, the focus is on the effects of the dairy promotion program on the U.S. demand and exports of fluid milk and dairy products. Once these market effects have been determined, a benefit-cost analysis of the dairy program at the producer level and at the fluid milk processor level can be done. In the analysis, the producer BCR of the dairy promotion program is calculated as the additional net producer revenues (profit) generated by the promotion program divided by the cost of the promotion programs. By using profit over costs, a more complete and realistic BCR is calculated for producers. The fluid milk processor BCR is calculated similarly to the producers; the cost of milk is used as a proxy for the cost of production since data for fluid milk processors' cost of production are not available. The analysis covers the period of 1995 to 2013 and also decomposes the results for comparison purposes into four similar time periods: (1) 1995-1999, (2) 2000-2004, (3) 2005-2009, and (4) 2010-2013.

This analysis is partially accomplished by aligning the annual model of the U.S. dairy industry maintained at the University of Missouri Agricultural Markets and Policy Group Dairy Model (AMAP Dairy Model) with the observed data over the 1995 to 2013 period. The impact of promotion is obtained by removing demand-enhancing expenditures from the system. There is a simulated "demand-enhancement" scenario representing the actual history, contrasted with a simulated "no-demand-enhancement" scenario (the counterfactual) to reflect the levels of prices and quantities expected in the absence of the dairy promotion programs.

This analysis uses the AMAP Dairy Model as modified to account for dairy promotion to answer the question posed above regarding the effects of dairy promotion on U.S. dairy markets and exports. For this analysis, the AMAP structural dairy model was simulated over the 1995 to 2013 period to identify how dairy markets would have functioned in the absence of promotion. The results for selected key variables in the model for the "promotion" and "no promotion" scenarios are presented in Table 3-3.

Table 3 provides a comparison of the "promotion" levels of each variable (actual historical data) to the "no promotion" levels (simulated levels without promotion) to show the effects across time from dairy promotion spending. There are many factors at play in the year-by-year results including the level of promotion expenditures each year and the supply dynamics built into the AMAP structural dairy model. In order to provide some insight into these model dynamics, Table 3-3 shows four sub periods of results as well as the entire period for selected endogenous

variables. This analysis starts in 1995 and ignores any promotion effects that would have occurred prior to 1995

Table 3-3. Effects of Dairy Promotion on U.S. Dairy Markets Based on Simulation of Supply Response

		Fluid Milk Per Capita Consumption	Cheese Per Capita Consumption	Butter Per Capita Consumption	Nonfat Dry Milk Per Capita Consumption	
		<i>(pounds)</i>				
Period	1995 - 1999	With Promotion	215.46	27.69	4.38	3.30
		No Promotion	194.71	26.41	4.19	3.40
		Change	20.75	1.27	0.19	-0.10
		Percent Change	10.7%	4.8%	4.4%	-2.9%
	2000 - 2004	With Promotion	206.51	30.49	4.48	3.33
		No Promotion	188.43	29.05	4.28	3.40
		Change	18.07	1.45	0.20	-0.07
		Percent Change	9.6%	5.0%	4.7%	-2.2%
	2005 - 2009	With Promotion	202.95	32.4	4.81	3.30
		No Promotion	187.09	31.07	4.54	3.34
		Change	15.87	1.33	0.27	-0.05
		Percent Change	8.5%	4.3%	6.0%	-1.5%
	2010 - 2013	With Promotion	196.4	33.28	5.33	2.91
		No Promotion	182.55	31.952	5.01	2.94
		Change	13.85	1.36	0.31	-0.02
		Percent Change	7.6%	4.3%	6.3%	-0.8%
	1995 - 2013	With Promotion	205.8	30.84	4.72	3.22
		No Promotion	188.49	29.49	4.48	3.29
		Change	17.31	1.35	0.24	-0.06
		Percent Change	9.2%	4.6%	5.4%	-1.9%

Source: Calculations by the authors

Because no other exogenous variable in the model (e.g., levels of inflation, exchange rates, income levels, government policies, etc.) other than dairy promotion expenditures is allowed to change in either scenario, this process effectively isolates the effects of the dairy promotion program on U.S. dairy markets and exports. That is, the simulated differences between the values of the endogenous variables from the “promotion” scenario and those from the “no promotion” scenario in which those expenditures are set to zero provide direct measures of the historical effects of the dairy promotion expenditures (and only those expenditures) on U.S. dairy markets and exports.

Over the period 1995 to 2013, per capita consumption of cheese, butter, and fluid milk rose 4.6 percent, 5.4 percent, and 9.2 percent respectively due to promotion efforts, all other factors held

constant. The overall downward trend of per capita fluid milk consumption is mitigated as a result of National Programs. If promotion did not exist, then consumption would have been 188.49 pounds per capita instead of 205.80 pounds per capita over the 1995-2013 period. Hence, the National Programs spending on fluid milk reduced the rate of decline. Per capita consumption of nonfat dry milk would have been 3.29 pounds per capita without promotion versus 3.22 pounds per capita with promotion over the 1995 to 2013 period (Table 3-3).

In the 2000 to 2004 period, the dairy product markets had several factors at play that provide different results depending on the dairy product in question. First, remember that cheese and fluid milk received the largest portion of dairy promotion dollars. For these two products, consumption remained higher as a result of promotion. Butter promotion was modest over this particular period and increased consumption by 4.7 percent.

During the 2005 to 2009 period, a return to stronger butter promotional spending in 2004, following relatively low levels from 1998 to 2003, resulted in increased per capita consumption by 0.27 pounds when comparing the no-promotion to promotion levels. In the previous period (2000-2004), the per capita consumption only increased by 0.20 pounds when comparing the no-promotion to promotion levels.

Promotional spending in nominal terms on all dairy products increased in 2010 through 2013 to a level not seen previously, leading to increases of cheese and butter consumption. Actual cheese consumption was up 0.88 pounds per capita in the 2005-2009 period and actual butter consumption was up 0.33 pounds per capita.

Benefit-Cost Ratios

This section provides a benefit-cost analysis of the National Programs based on the results of the scenario analyses discussed in the previous section. As calculated, the producer profit BCR is the additional industry profits (additional cash receipts net of additional production costs and promotion assessments) earned by producers as a consequence of the promotion expenditures (as measured through the scenario analyses) divided by the historical level of promotion expenditures made to generate those additional profits. By using a profit BCR, a more complete and realistic analysis is conducted. This measure more accurately captures the additional net revenue gained from promotional expenditures.

Over the period 1995 to 2013, the gains in profit at the producer level were far larger than the expenditures on demand-enhancement programs. The BCRs for producers for fluid milk were calculated to be \$3.98 for every dollar invested in demand-enhancing activities; for cheese – \$6.21 for every dollar invested; and for butter – \$29.49 for every dollar invested. Dairy export promotion expenditures have increased the foreign demand for U.S. dairy products by \$5.58 for every dollar invested. For an aggregate of all dairy products, the net profit BCR is approximately \$5.53 for every dollar spent (Table 3-4).

Table 3-4. Calculated Benefit-Cost Ratio (BCRs), in Net Profit at the Producer Level Attributed to the National Programs, 1995 to 2013

Producers	
Product	BCR
All Dairy	5.53
Fluid milk	3.98
Cheese	6.21
Butter	29.49
Exports	5.58

Source: Calculations by the authors

The fluid milk processor BCR cannot be calculated as completely as the producer BCR since the cost-of-production data are not available. To calculate the fluid milk BCR, the milk costs are used as a proxy for cost-of-production since milk would be the largest input cost. Over the period 1995 to 2013, the gains in profit at the fluid milk processor level were far larger than the expenditures on demand-enhancement programs. The BCRs for fluid milk were calculated to be \$4.88 for every dollar invested in demand-enhancing activities for fluid milk processors (Table 3-5).

Table 3-5. Calculated Benefit-Cost Ratio (BCRs), in Net Profit at the Fluid Milk Processor Level Attributed to Fluid Milk Promotion Program, 1995 to 2013

Fluid Milk Processors	
Product	BCR
Fluid Milk	4.88

Source: Calculations by the authors

Partnership Evaluation

This evaluation focuses on the partnership between DMI and McDonald’s regarding dairy product consumption of specialty coffee only. This partnership, which began in 2008, provides a portion of promotion program receipts for the promotion of dairy products in the quick serve restaurant (QSR) channel. Given that about 45 percent of consumers’ food expenditures are on food consumed away from home (USDA ERS), the utilization of promotion funds in the QSR channel potentially affects a large market. Subsequently, the report contains an overview of the specialty coffee market and the competition among specialty coffee providers in the QSR channel. The final section of the partnership evaluation is a presentation of the quantitative model methodology and explanation of the assumptions underlying the estimated partnership-specific BCR.

A large number of outlets added specialty coffee to the menu of McCafe. Those specialty drinks contained real dairy products (cream and fluid milk). It was reported that 11,000 McDonald’s restaurants participated in the 2009 national roll-out (Jennings, 2009). The launch of McCafe coincided with the 2008/2009 recession and offered a value position that was consistent with consumers’ constrained income. The consumption of lower priced specialty coffees at full-menu QSRs increased because of availability and promotional activities as well as income effects during the recession.

Economic Trends and Food/Beverage Purchases for Consumption Away From Home

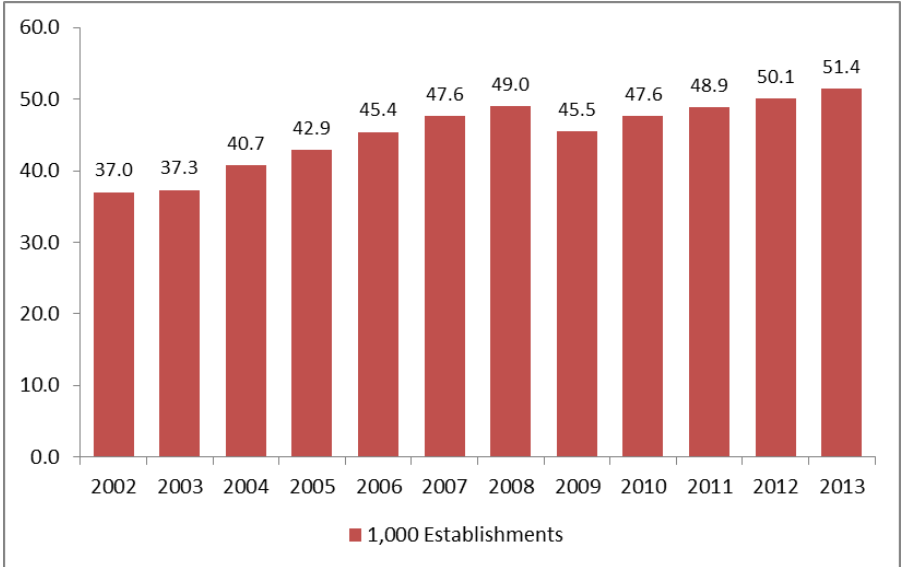
Over the last several decades, there has been a trend toward differentiation of food offerings on the basis of convenience. The QSR category thrived because these outlets offered speed and consistency to consumers. Differentiation of the meal items and meal occasions continues to grow, so distinct eating experiences and product mixes are available at a wide selection of QSR chains.

The Market for Specialty Coffee

Coffee shops are a subset within QSRs, and today, they are differentiated among purveyors of specialty coffee. Growth in the specialty coffee market from 2002 to 2013 was notable based on the number of coffee shops (Figure 3-13).

In addition to sales at coffee shops, coffee was sold in full-line restaurants. Some of the restaurants were QSRs. Based on NPD CREST data for the period March 2007 to December 2013, the median monthly market shares for the leading national or regional brands of QSRs serving specialty coffee were: Starbucks, at 52 percent of the national market; Dunkin Donuts, 13.3 percent; McDonald’s, 11.6 percent; and for all other brands, 23.1 percent.

Figure 3-13. Number of Coffee Shops and Snack Bars, 2002 to 2013



Source: U.S. Census, various years

Economic Impact of the Recession 2008-2009

Inflation-adjusted consumer income on a monthly basis was nearly constant from 2007 through early 2010 (Figure 3-14, shown in the dashed line, right axis). Real monthly income did not recover to pre-recession levels until mid-2010. Sales in QSRs and drinking places declined by \$3.3 billion in nominal terms for 2009 compared with 2008 (U.S. Census, see Figure 3-15).

Consumers' patronage of the gourmet coffee subcategory changed abruptly with the recession. There was a decline by 6 percent in the servings of gourmet specialty coffee sold in 2009 compared with 2008, according to NPD CREST. Nevertheless, the specialty coffee category as a whole was more stable, with the number of servings holding roughly steady, around seasonal variations. Specialty coffee movement in QSRs ranged between approximately 150 million to 235 million servings per month during 2007 through the end of 2009.

In the industry press, explanations were offered to substantiate the different observed effects of the recession on specialty coffees. The 2008/2009 recession was a time when consumers were "trading down in restaurant selection" (Terry, 2009), but not eliminating food or beverage consumption away from home. In this view, specialty coffee remained an affordable indulgence that consumers would continue to purchase during the downturn (Jennings 2009).

The data on the number of coffee shops and the number servings of specialty coffee items in QSRs support a conclusion that specialty coffee was moderately affected by the recession. Growth in the number of coffee shops was interrupted in 2008-2009 (Figure 3-13). The compound annual growth rate in coffee shop numbers for the entire period, 2003-2014, was 3 percent per year. There was a 7.2 percent reduction in the number of coffee shops in the recession years between 2008 and 2009. Starbucks closed 800 outlets during the recession (Jennings, 2009).

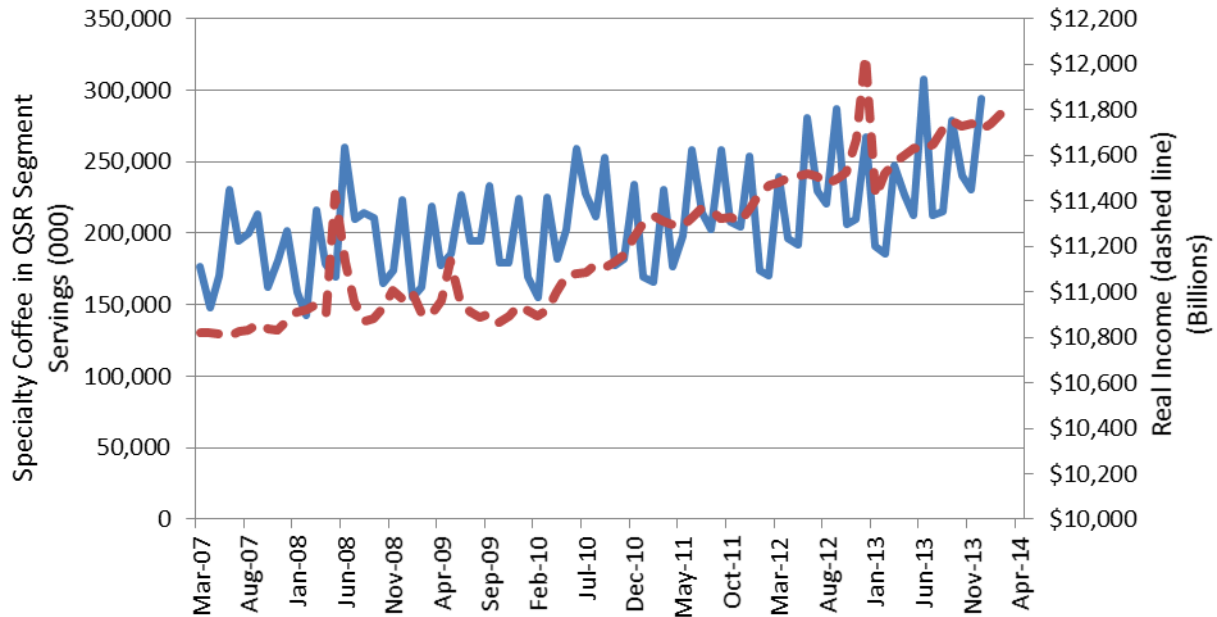
During this time of considerable economic stress, the total number of servings of specialty coffee sold in all QSRs was virtually flat (NPD CREST). The fact that sales volume held steady, while the number of outlets fell, indicates the persistence of the demand for the product in spite of constraints on consumers' income. These facts also are consistent with a shift among some consumers to purchase specialty coffee at full-menu QSR outlets rather than at gourmet coffee shops.

McCafe specialty coffee products became available in 11,000 McDonald's restaurants beginning in early 2009, according to the trade press (Jennings, 2009). The nationwide launch was preceded by DMI partnership funding which supported the development of recipes and formulations. The number of McDonald's outlets adding specialty coffee to the menu in 2009 was roughly the same as the number of outlets in the entire Starbucks chain in the United States of America. The national rollout of McCafe represented the addition of over 20 percent more locations at which consumers were presented with a specialty coffee option.

During 2009, there were two simultaneous disruptive forces in the specialty coffee market: economic recession and the nationwide introduction of the McCafe line of products. There is no way to disentangle the two factors – income and a new brand. Between 2010 and 2012, specialty

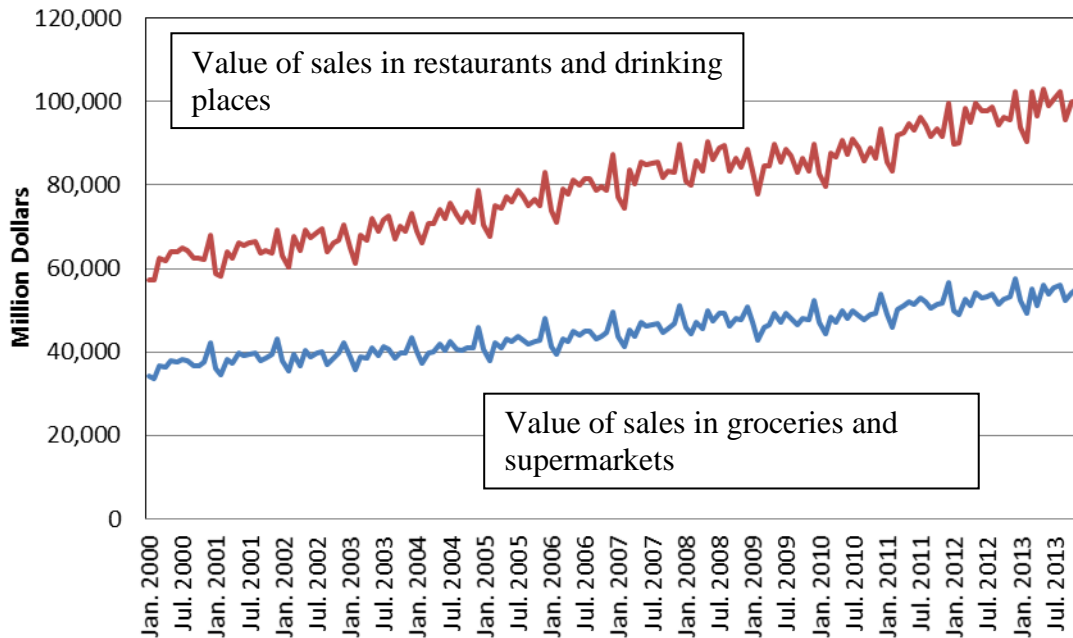
coffee consumption at QSRs rose by 7.8 percent. An upward trend in the specialty coffee category became apparent once consumer income growth resumed in 2010.

Figure 3-14. Servings of Specialty Coffee and Personal Disposable Income in the United States of America, by Month 2007 to 2013



Source: NPD Group, CREST database and calculations by the authors

Figure 3-15. Food At Home and Away From Home, Value of Sales in Food and Beverage Retail Outlets, Monthly 2000-2013, in Million Dollars



Source: U.S. Census, various years

Promotions Involving McCafe and Competitors

The DMI partnership program included expenditures to support personnel at McDonald's company facilities, working on new product development. After the product formulations were developed, the new products were advertised. This analysis substantiates that promotional activities influenced the growth in the category.

At the time of its launch in 2009, McCafe was promoted as a quality coffee to be consumed as a beverage alone. The follow-up promotions highlighted new flavors to revive interest in the product varieties. Most of the new product promotions were for items containing cream or milk. For example, French vanilla latte was reportedly very successful in 2012, a year when sales of latte increased (Horovitz 2013). In spite of the success of the new flavor, in 2012 the number of specialty coffee servings at McDonald's fell below the numbers sold in 2011 (NPD CREST)⁴.

Quantitative Evaluation of the Impact of the Partnership

Methodology of the Quantitative Analysis of the Partnership

The quantitative analysis of the partnership between DMI and McDonald's is estimated using a statistical/econometric model. The goal of the econometric analysis is to quantify the role of DMI expenditures in explaining the amount of McCafe specialty coffees sold, while controlling for the influence of other market forces to the extent possible. In the econometric analysis, servings of specialty coffee in McDonald's outlets were hypothesized to be explained by: (1) expenditures by DMI on the McDonald's partnership, contemporaneously and with various time lags; (2) coffee prices; (3) seasonality; (4) population; (5) inflation; (6) a control variable for economic recession; and (7) inertia or habit persistence.

The model accounted for nearly 90 percent of the variation in monthly per capita McCafe coffee servings. The partnership was found to be effective in stimulating additional servings of specialty coffee, and the impacts of promotion were spread over a period of 7 months. The own-price elasticity of demand was estimated to be -0.69, indicating a 1.0 percent reduction in price per serving was associated with 0.69 percent increase in the quantity sold of McCafe servings, all other factors held constant.

Seasonality clearly was evident. Relative to December, McCafe servings were higher by 30 percent in June, 20 percent higher in August, and 13 percent higher in September. McCafe coffee servings were significantly lower in October (by 14 percent), and in February (by 40 percent). In addition, the trend variables were statistically significant, indicating that all other factors held constant, McCafe coffee servings on a per capita basis grew but at a decreasing rate. Further, during the recession from December 2007 to June 2009, McCafe servings per capita increased by roughly 11 percent relative to non-recessionary months. Several of the recession months coincided with the national roll-out of McCafe, so the variable employed as an indicator

⁴ There is some indication that the McDonald's products encouraged other QSRs to adopt a similar strategy. Substitution between premium coffee outlets and McDonald's products likely has been limited, therefore it is hypothesized that the servings of the McCafe line were largely additional consumption of cream and fluid milk, especially after income growth returned in 2010.

of the business cycle was not a unique control variable.

The incremental servings of McCafe coffee attributed to the efforts of the partnership were estimated to be about 200 million, roughly 9.78 percent of cumulative McCafe servings over the period March 2007 to December 2013.

Assumptions Made With the Econometric Analysis

The two factors not accounted for are: (1) this analysis only accounts for the effect on McCafe and (2) any spillover effects from rival QSRs. In the first assumption, if the McCafe promotion encouraged a purchase of a McCafe product plus another McDonald's product with dairy, then the non-McCafe product's impact would not be accounted for. And for the second assumption, spillover effects from rival QSR companies marketing specialty coffee and similar beverages that contained dairy as a direct result of the national roll-out of McCafe would not be accounted for. Overall, the econometric analysis likely provides a conservative estimate of the impact of the partnership. The quantitative results presented in the following section ultimately provide a conservative view of the BCR of the specialty coffee partnership program.

Connecting Incremental McCafe Coffee Servings to Fluid Milk

The sources used to calculate the amount of dairy in the McCafe products (for the purpose of this analysis) are limited to the published nutrition information and ingredients listings. The contents of McCafe coffee products include: heavy cream, whipped cream, or whole, skim, or nonfat milk, according to the company's ingredients listing. Those products were used to arrive at an estimate of the quantity of fluid milk to be attributed to a serving of McCafe.

In order to arrive at an estimate, it was necessary to convert a typical McCafe coffee serving to a corresponding volume of milk. It was assumed that dairy ingredients were the sole source of protein in the specialty coffee. This step was accomplished by using the protein content in McCafe items. Protein, by item, is available from public sources for the flavors and sizes of McCafe (McDonald's Corporation). The conversion between grams of protein and whole milk was based on 0.9825 grams of protein per ounce of whole milk (source: [http://milkfacts.info/Nutrition %20Facts/Nutrient%20Content.htm](http://milkfacts.info/Nutrition%20Facts/Nutrient%20Content.htm)).

For example, the nutrition facts state the 12-ounce McCafe latte contains 9 grams of protein. Whole milk contains 7.9 grams of protein per 8 ounces, using the conversion of 0.9825 grams of protein per ounce of whole milk. In order for the coffee drink to have 9 grams of protein, a dairy equivalent of 8.8425 ounces of whole milk would have been blended in a 12-ounce coffee. According to the protein content listed in McDonald's nutrition facts, the greatest amount of dairy per ounce of beverage is in the McCafe latte. The frappe and mocha drinks were prepared with considerable milk as well, containing 7.12 ounces of whole milk equivalent per 12-ounce coffee serving. Iced coffees contain relatively little dairy ingredients. There were 1.03 ounces of whole milk equivalent in the whipped cream topping on the iced coffee.

There is substantial variation in the amount of dairy contained in the McCafe specialty coffee items. The data available from public sources listed servings of specialty coffee, by the retail

store brand, but not the breakdown among the various products. The product types are black coffee (with no dairy added), blends with modest amounts of dairy added, or blends with large amounts of dairy added. To account for this limitation, this study includes a sensitivity analysis on the unknown shares of these three classes of products.

It is reported in “Coffee Drinking Statistics” that 35 percent of coffee drinkers prefer black coffee (source: <http://www.statisticbrain.com/coffee-drinking-statistics/>, accessed June 16, 2015). This information is used to infer the share of McCafe specialty coffees which contain larger quantities of dairy. Assuming that the 35-percent share for black coffee held for McCafe coffee sales, 5 percent of McCafe servings are classified as black coffee (Premium Roast) and 30 percent were classified as black iced coffee drinks that had little dairy content. A larger share of McCafe servings were classified as blended specialty coffee, namely latte, frappe, or mocha. Among the products containing the most dairy, the shares are split into 20 percent latte and 45 percent frappe/mocha beverages. Based on this set of assumed product shares, a weighted average of roughly 7.6 ounces of whole milk equivalent per serving of McCafe was obtained.

An alternative estimate of product shares within the McCafe lines was considered to provide a more conservative figure for dairy sales attributed to the partnership. When it was assumed that latte/frappe/mocha was 30 percent of McCafe sales rather than the 65 percent assumed in the aforementioned scenario, the resulting estimate of milk quantity was slightly more than 4 ounces per serving. Consequently, a range of results is provided herein on either 4 ounces or 7.6 ounces of whole milk equivalent per serving of McCafe.

Using the more conservative estimate of 4.0 ounces of milk, on average, in the specialty coffee drinks at McDonald’s, the BCR of the partnership to the dairy industry was estimated to be 1.75. For each dollar invested in the McDonald’s partnership, the incremental sales of milk associated are valued at \$1.75. Using the more liberal estimate of 7.6 ounces of milk, on average, in the specialty coffee drinks at McDonald’s, the BCR of the partnership to the dairy industry was estimated to be 3.26. For each dollar invested in the McDonald’s partnership, the incremental sales of milk associated are valued at \$3.26. The BCR calculation indeed was sensitive to the estimate of the amount of milk contained in the specialty coffee drinks at McDonald’s. These results correspond to revenue BCRs. Importantly, the producer-level cost of production has not been accounted for in the calculation of these ratios.

Given that the range of BCRs associated with this partnership exceeds 1.0, the benefits of the McCafe partnership exceed the program costs. Based on the estimates of milk in specialty coffee drinks at McDonald’s, the cumulative total value of the incremental sales due to the partnership was estimated to range from \$10 million to \$19 million, based on the monthly producer price of milk since the inception of the McCafe partnership. The total incremental pounds of milk consumed attributable to the DMI partnership with McDonald’s was 54 million pounds to 101 million pounds.

Conclusions About the Partnership

For the McCafe partnership, the launch of the new products provided an immediate effect on consumption, because these items were not available before the development under the

partnership. After a national launch and associated promotion, the cumulative impact of the partnership on McCafe servings took 7 months. More servings of McCafe were sold for each dollar of expenditures under the McCafe portion of the partnership, over the period 2008 through 2013. Assuming that 4.0 to 7.6 ounces of milk, on average, were contained in the specialty coffee drinks at McDonald's, the cumulative total producer impact of incremental sales due to the partnership ranged from \$10 million to \$19 million.

Evidence suggests that the partnership between DMI and McDonald's also is cost effective to the dairy industry. Indeed, the milk content was estimated based on ingredients and assumptions about market shares of black coffees and blended dairy beverages in the specialty coffee category. Further, it was not possible to quantify a number of potential factors which may influence the calculation of the return on investment associated with the McDonald's partnership. For example, this analysis does not address the attraction of customers to McDonald's resulting in spillover effects in that customers purchase additional dairy products (cheese and ice cream) beyond just the servings of McCafe. Moreover, it does not account for any substitution to real dairy from non-dairy ingredients.

Concluding Remarks

This report provides the independent evaluation of the effectiveness of the National Programs covering the period 1995-2013. The key findings regarding markets for milk and manufactured dairy products include:

- The National Programs have effectively increased the demand of promoted dairy products, especially for cheese and butter, while lessening the decline in per capita fluid milk consumption. The gains in profit at the producer and fluid milk processor level were far larger than the costs of the National Programs.
- The overall BCR (using profit over costs) of the National Programs was calculated to be 5.53; that is for every \$1 spent on demand-enhancing activities, dairy producers received an additional \$5.53.
- The BCRs for producers for fluid milk were calculated to be \$3.98 for every dollar invested in demand-enhancing activities; for cheese, \$6.21 for every dollar invested; and for butter, \$29.49 for every dollar invested. The BCR of export promotion was \$5.58 per dollar invested.
- DMI was instrumental in positively affecting the number of McCafe servings. The incremental servings of McCafe coffee that were attributed to the efforts of the partnership were estimated to be about 200 million, roughly 9.78 percent of cumulative McCafe servings over the period March 2007 to December 2013. The producer impact of incremental sales due to the partnership ranged from \$10 million to \$19 million.
- The BCR for fluid milk processors attributed to the Fluid Milk Promotion Program were calculated to be \$4.88.

- With regard to methodology, the structural econometric models that are presented in this report are statistically valid and largely consistent with prior studies in the literature on evaluation of generic commodity promotion. The simulation analysis was accomplished by aligning the AMAP Dairy Model with the observed data over the 1995 to 2013 period. The baseline period is 1995 to 2013, and the impact of promotion was obtained by removing demand-enhancing expenditures from the system (the counterfactual)⁵.

⁵ A reference list is available upon request.

Chapter 4

Quantitative Evaluation of the Effectiveness of Marketing and Promotion Activities by the National Dairy Promotion and Research Program and the National Fluid Milk Processor Promotion Program – 2014 Activities

Introduction

The Dairy Act and Fluid Act require an annual independent analysis of the advertising and promotion programs that operate to increase consumer awareness and sales of fluid milk and dairy products. Texas A&M University researchers were awarded a competitive contract to complete the study. Chapter 4 summarizes the quantitative evaluation of the effectiveness of the dairy and fluid milk promotion programs.

Background on the Promotion Programs

The Dairy Promotion and Research Program is a coordinated research and promotion program that maintains and expands domestic and foreign markets for fluid milk and dairy products. To fund the program, U.S. dairy producers pay a 15-cent-per hundredweight assessment on milk marketing and importers pay 7.5-cent-per hundredweight assessment, or equivalent thereof, on dairy products imported into the United States. Dairy Management Inc. (DMI), a management and staffing corporation, is a joint undertaking between the National Dairy Promotion and Research Board (Dairy Board) and the United Dairy Industry Association (UDIA). UDIA is a federation of 19 of the 63 Qualified Programs under the direction of a board of directors. The mission of DMI is to drive increased sales of and demand for dairy products and ingredients, on behalf of dairy producers and dairy importers. DMI works proactively in partnership with leaders and innovators to increase and apply knowledge that leverages opportunities to expand dairy markets.

Qualified Dairy Product Promotion, Research, and Nutrition Educational Programs (QPs) are State, regional, local, or importer promotion programs certified annually by the U.S. Secretary of Agriculture to receive a portion of the funds generated under the National Dairy Promotion and Research Program.

The National Fluid Milk Processor Promotion Program, or Fluid Milk Promotion Program develops and finances generic advertising programs designed to maintain and expand markets and uses for fluid milk products produced in the United States. Fluid milk processors marketing more than 3 million pounds of fluid milk per month pay a 20-cent-per-hundredweight assessment on fluid milk processed and marketed in consumer-type packages in the United States. The Fluid Milk Processor Education Program (MilkPEP) is the staffing organization that carries out the promotion programs on behalf of the Fluid Milk Promotion Program.

The National Dairy Promotion and Research Program, funded by dairy producers and dairy importers, and the National Fluid Milk Processor Promotion program, funded by fluid milk processors, are hereinafter referred to as the National Programs.

Objectives of the Evaluation Study

The National Programs are evaluated with the key question in mind: have the demand-enhancing activities conducted by dairy producers, importers, and fluid milk processors actually increased the demand for fluid milk and manufactured dairy products?

Historically, this question has been answered through econometric studies on the relationships between consumption of dairy products and promotion program demand-enhancing expenditures. These demand relationships are estimated in a structure that controls for the impacts of market forces. Economic returns to dairy producers, importers, and fluid milk processors that result from marketing and promotion activities and the associated changes in consumption are calculated using the parameters obtained from the demand models. The summary indicator of economic return on investment is a benefit-cost-ratio (BCR).

The objectives of this report are threefold:

1. Determine the combined effects of the program activities of MilkPEP, DMI, and QPs on the consumption of fluid milk, cheese, butter, all dairy products, and dairy exports;
2. Develop and implement a simulation model to calculate BCRs for dairy producers and fluid milk processors; and
3. A qualitative and quantitative analysis of dairy product imports and import assessments.

This project covers the time period from 1995 to 2014 and captures the joint efforts of DMI, MilkPEP, and QPs.

Summary of the Findings

The overall finding of this evaluation is that the National Programs have effectively increased the demand (domestic and exports) for dairy products. The gains in profit at the farm level were far larger than the costs associated with the National Programs combined. The impacts on producers as well as on fluid milk processors' spending are summarized with BCRs. The BCRs are based on the demand-enhancing expenditures only; therefore, they do not account for certain operating expenses such as overhead, technical support and industry relations.

The BCRs expressed in terms of producer profit at the farm level were calculated to be \$3.93 for every dollar invested in demand-enhancing activities for fluid milk; \$6.71 for every dollar invested in demand-enhancing activities for cheese; and \$29.53 for every dollar invested in demand-enhancing activities for butter. The BCR of export promotion is \$5.67 per dollar invested. Under both the aggregated-fat and skim-solids bases, a significant positive relationship exists between the demand for dairy and the National Programs expenditure, in both the short run and the long run. The aggregate, all-dairy BCR is 5.50, meaning that the producer profit increases by \$5.50 for each \$1.00 investment in demand-enhancing activities.

The United States imported between \$2.5 billion and \$3.5 billion in dairy products in each of the last 5 years. Cheese products accounted for slightly more than one-third, by value, of the dairy imports. Effective April 1, 2011, importers of dairy products paid assessments to the national

dairy promotion and research program. Import assessment funds totaled between \$3.41 million and \$3.53 million dollars per year during 2012, 2013, and 2014. The import assessment has amounted to less than 1 percent of the total demand-enhancing expenditures.

Due to promotion funds collected from importers, imported cheese levels were higher by roughly 1.0 million pounds to 1.5 million pounds. Unit values of cheese imports amounted to roughly \$3.42 per pound on average over the period 2011 to 2014. Hence, incremental revenue to importers solely from cheese attributed to the import assessment totaled roughly \$3.4 million to \$5.3 million.

Since cost-of-production data are unavailable for fluid milk processors, the fluid milk processor BCR is calculated using the milk cost as a proxy for cost of production. The BCR in terms of a fluid milk processor is a \$4.87 return to fluid milk processors for every dollar invested in demand-enhancing activities for fluid milk.

With regard to methodology, the structural econometric models that are the basis for these findings are statistically valid and consistent with prior studies in the literature on evaluation of generic commodity promotion.

DMI, MilkPEP, and QP Promotion Program Expenditures

The data for this analysis were acquired from DMI, QPs, and MilkPEP. The demand-enhancing expenditures from all three entities were aggregated.

The National Programs use advertising as well as other means to influence consumers. Advertising dollars are directed to media outlets, including television, outdoor, print, radio, and the internet. Marketing activities other than advertising are directed at the retail level of the marketing channel or at intermediaries. The non-advertising marketing expenditures include health and nutrition education programs; public relations; food service and manufacturing programs; sales promotion programs; school milk programs; school marketing activities; retail programs; child nutrition and fitness initiatives; and single-serve milk promotion.

Certain promotion expenditures are not directed at the retail level of the marketing channel; these types of expenditures include crisis management, trade service communications, and strategic research activities. These expenditures are classified as demand-enhancing expenditures. Expenditures for overhead, technical support and industry relations are excluded from this analysis because they are not primarily demand enhancing.

Over the past several years, the DMI Board of Directors changed its marketing strategies to focus more on partnerships within the dairy industry to increase demand for fluid milk, manufactured dairy products, and dairy ingredients. Currently, DMI's strategies include working with and through specific partners to achieve sustainable, category-level sales impacts; attract partner co-investment to fund demand-enhancing efforts; and maximize resources and impacts in increasingly competitive markets. These efforts include co-developing marketing information, research, business models, and best practices that can be used by the industry to increase sales of

fluid milk and dairy products.

Annual promotion program expenditures made by DMI, MilkPEP, and QPs over the period 1995 to 2014 are depicted in Table 4-1 and in Figure 4-1. On average, slightly more than \$358 million in total was spent annually by the respective entities over this period and close to \$400 million in each year from 2011 to 2014. Median DMI expenditures were close to \$90 million per year, ranging from \$65.3 million to \$99.7 million. Similarly, median MilkPEP expenditures were about \$95 million per year, ranging from \$38.7 million to \$101.9 million. Finally, median expenditures made by QPs were about \$174 million per year.

The data associated with the demand-enhancing activities initiated by DMI and MilkPEP are also available on a quarterly basis. QP data are only available on an annual basis. To estimate quarterly data for the QPs, the seasonal nature of DMI and MilkPEP expenditure data is assumed to be similar to the QP expenditure data. Consequently, the seasonal factors associated with DMI and MilkPEP data are obtained and applied to the annual QP data to arrive at quarterly expenditures. The estimation of these data on a quarterly basis is important in allowing for sufficient observations to conduct the econometric analysis of demand for dairy products.

Table 4-1. Annual Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Promotion Program Expenditures, 1995 to 2014*

Year	DMI	MilkPEP	QPs	Total
1995	\$88,105	\$43,654	\$160,832	\$292,592
1996	\$99,674	\$38,690	\$159,600	\$297,964
1997	\$93,859	\$101,850	\$160,379	\$356,088
1998	\$97,570	\$100,901	\$158,348	\$356,819
1999	\$90,055	\$97,023	\$161,161	\$348,238
2000	\$88,068	\$95,158	\$169,654	\$352,880
2001	\$96,185	\$95,112	\$169,967	\$361,264
2002	\$92,012	\$93,511	\$174,857	\$360,380
2003	\$87,301	\$95,688	\$165,973	\$348,962
2004	\$82,871	\$97,167	\$172,667	\$352,705
2005	\$76,125	\$83,527	\$175,081	\$334,733
2006	\$65,296	\$92,030	\$182,443	\$339,768
2007	\$74,623	\$101,125	\$190,289	\$366,037
2008	\$99,051	\$97,003	\$181,091	\$377,145
2009	\$94,071	\$95,109	\$187,992	\$377,172
2010	\$87,512	\$98,316	\$166,459	\$352,287
2011	\$88,456	\$91,289	\$214,758	\$394,503
2012	\$82,360	\$91,893	\$216,484	\$390,736
2013	\$93,184	\$89,633	\$216,844	\$399,662
2014	\$95,010	\$83,426	\$211,348	\$395,100

*Thousands of dollars

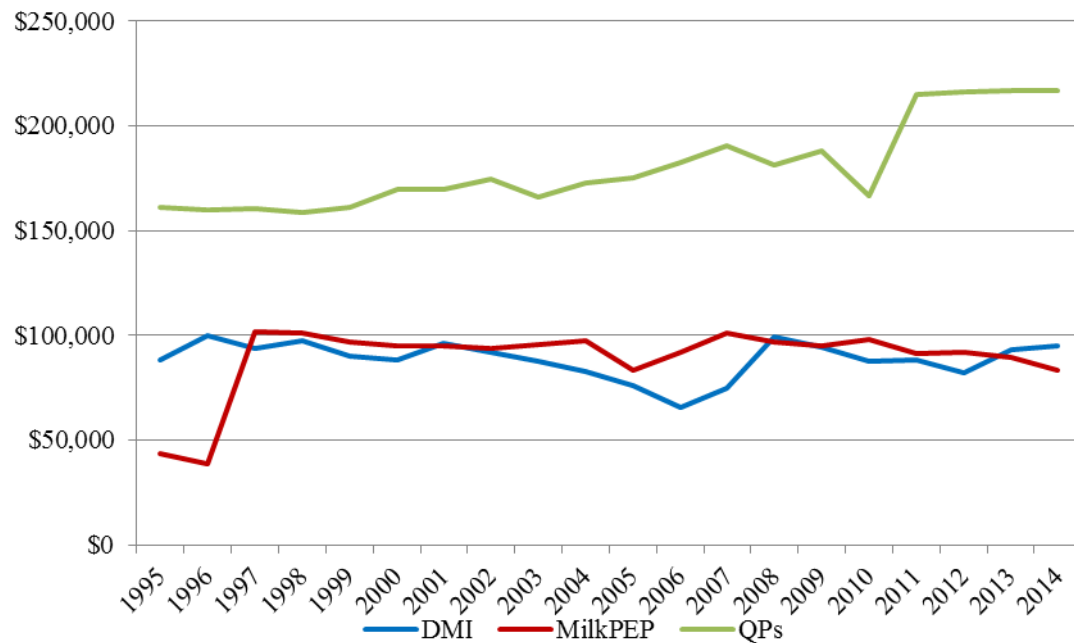
Source: Dairy Management, Inc., Milk Processor Education Program, and U.S. Department of Agriculture

Nominal seasonally adjusted demand-enhancing expenditures by DMI, MilkPEP, and QPs for all dairy products (fluid and manufacturing) combined on a quarterly basis from 1995 to 2014 are exhibited in Figure 2. These demand-enhancing expenditures varied from \$42.9 million to \$96.7 million per quarter, averaging \$66.4 million.

Nominal seasonally adjusted demand-enhancing expenditures for fluid milk from DMI, MilkPEP, and QPs on a quarterly basis from 1995 to 2014 are exhibited in Figure 3. From 1995 to 2014, nominal seasonally adjusted quarterly promotion program expenditures for fluid milk ranged from roughly \$24.2 million to \$62.9 million per quarter. On average over the period from 1995 to 2014, nominal seasonally adjusted demand-enhancing expenditures for fluid milk were \$34.5 million per quarter.

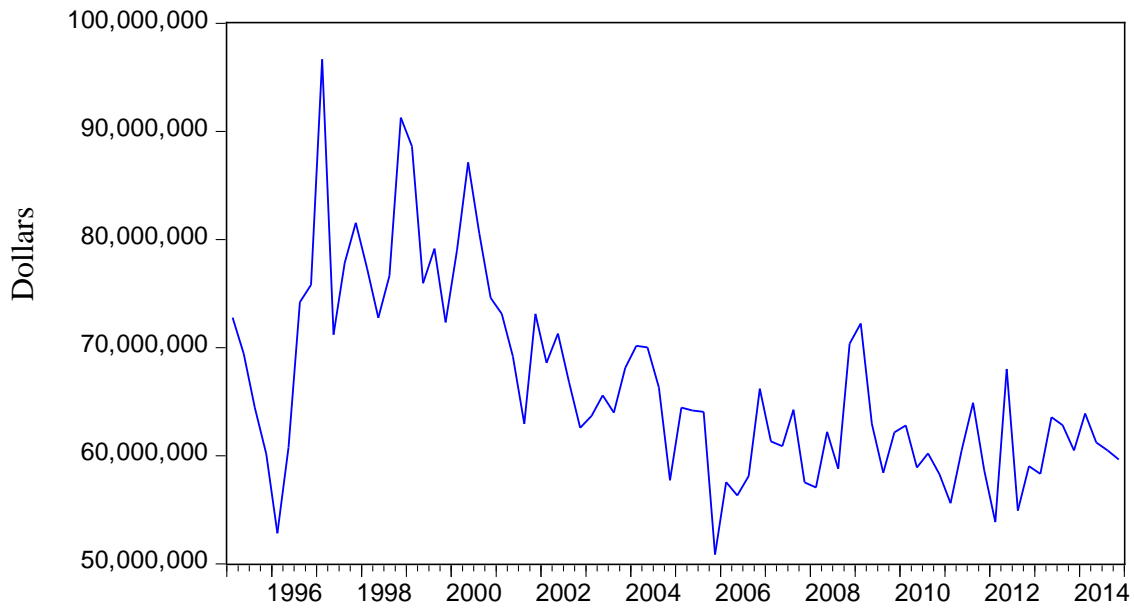
As exhibited in Figure 4-4, nominal seasonally adjusted demand-enhancing expenditures for cheese ranged from \$12.8 million to \$27.6 million from 1995 to 2004, averaging \$21.5 million per quarter. From 2005 to the third quarter of 2008, promotion expenditures associated with cheese were much smaller compared to the period from 1995 to 2004. On average, expenditures on cheese marketing and promotion were \$12.0 million during the period. Expenditures on cheese increased from the fourth quarter of 2008 to the end of 2014. During this latter timeframe, nominal quarterly expenditures on cheese marketing and promotion activities ranged from \$8.3 million to \$18.9 million, averaging \$12.4 million per quarter. Over the period 1995 to 2014, nominal seasonally adjusted demand-enhancing expenditures for cheese averaged \$16.9 million per quarter.

Figure 4-1. Annual Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Promotion Expenditures, 1995 to 2014



Source: Dairy Management, Inc., Milk Processor Education Program, and U.S. Department of Agriculture

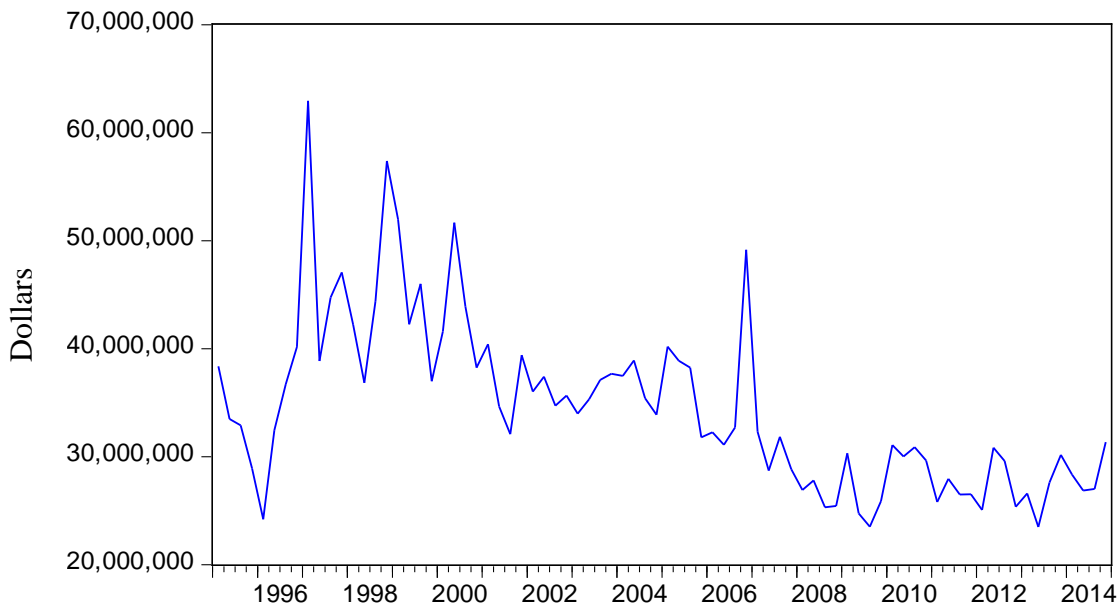
Figure 4-2. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Expenditures for All Dairy Products, 1995.1 to 2014.4*



*Includes expenditures not only for advertising and promotion but also for dairy foods and nutrition research, nutrition education, and market and economic research.

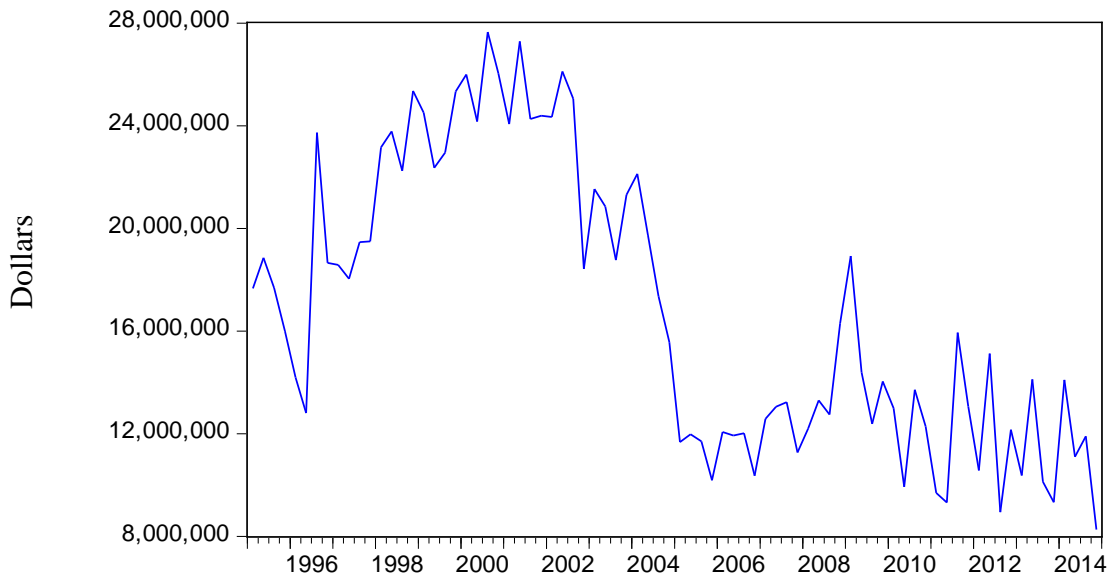
Source: Dairy Management, Inc., Milk Processor Education Program, and U.S. Department of Agriculture

Figure 4-3. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Expenditures for Fluid Milk, 1995.1 to 2014.4



Source: Dairy Management, Inc., Milk Processor Education Program, Qualified Programs, and calculations by the authors.

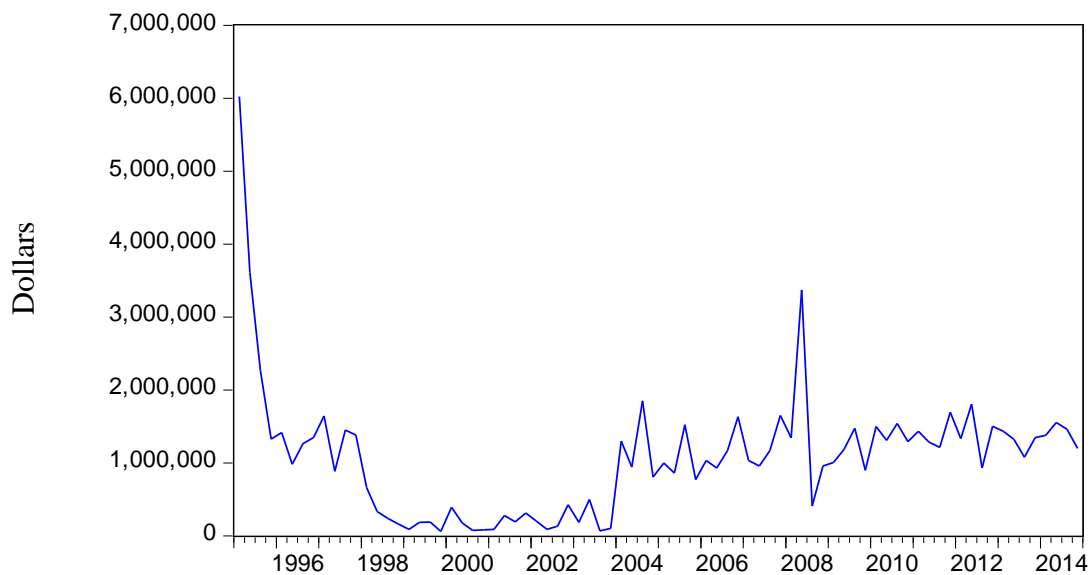
Figure 4-4. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., Milk Processor Education Program, and Qualified Program Expenditures for Fluid Milk, 1995.1 to 2014.4



Source: Dairy Management, Inc., Qualified Programs, and calculations by the authors.

As shown in Figure 4-5, nominal seasonally adjusted demand-enhancing quarterly expenditures on marketing and promotion of butter ranged from close to \$60,000 to \$6 million, averaging slightly more than \$1 million per quarter over the period 1995 to 2014. Marketing and promotion expenditures for butter are a fraction of comparable expenditures for fluid milk and cheese.

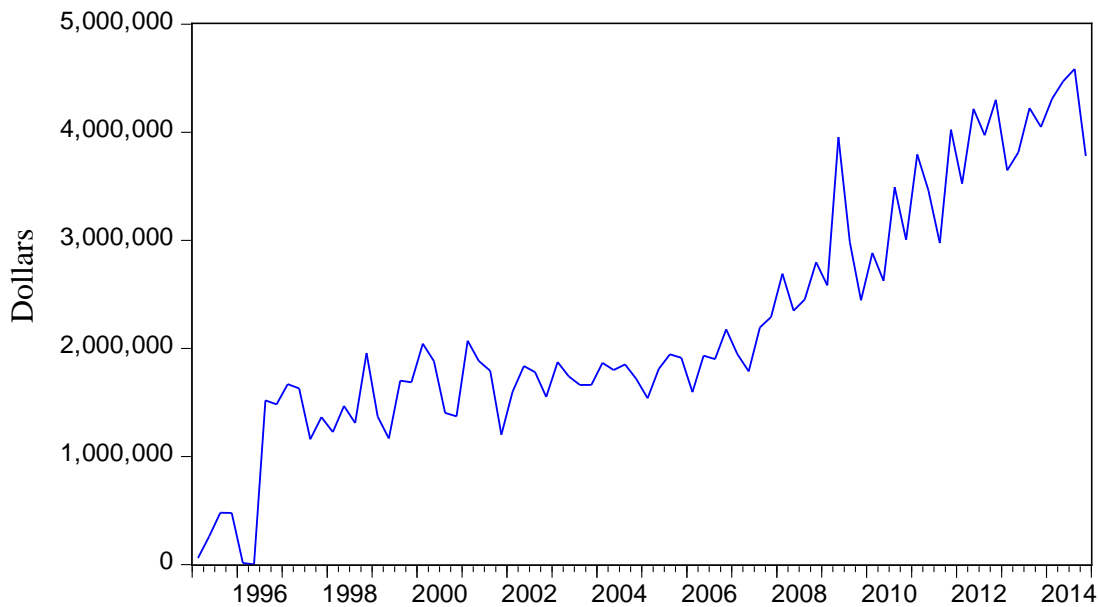
Figure 4-5. Nominal Seasonally Adjusted Demand-Enhancing Dairy Management, Inc., and Qualified Program Expenditures for Butter, 1995.1 to 2014.4



Source: Dairy Management, Inc., Qualified Programs, and calculations by the authors.

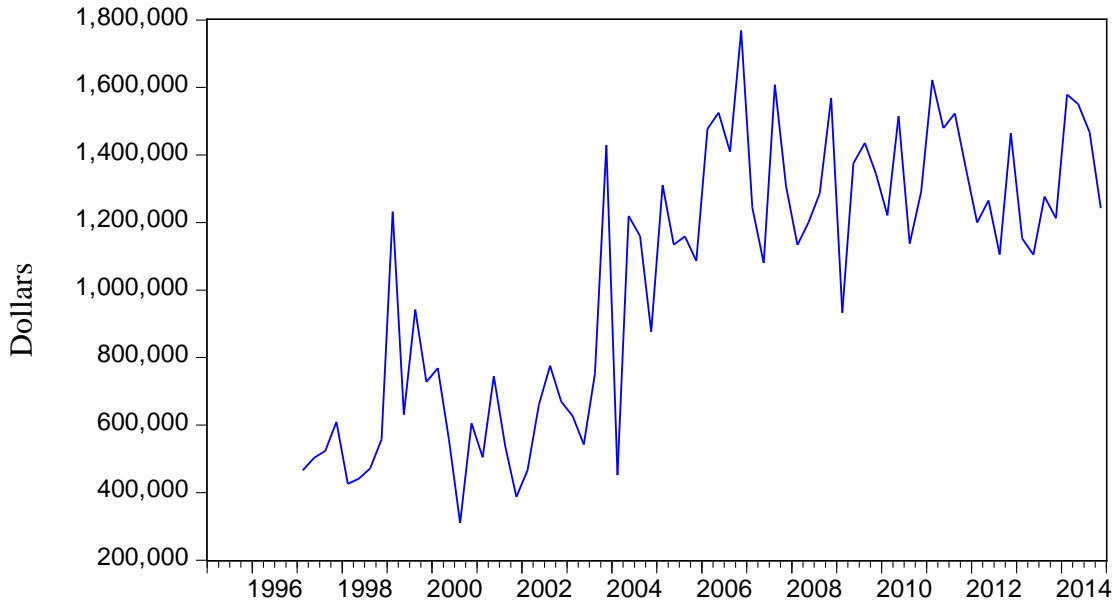
Beginning in 2006, DMI transitioned from featuring milk, cheese, and butter in product-specific promotions to broader campaigns that relate to a number of dairy products. As a result of an increasing number of campaigns affecting multiple products, it is important to assess demand enhancements for the aggregate of dairy products as well as within specific product markets. Global dairy markets are another area in which promotion program funds are invested. The export promotion programs as analyzed by this analysis are shown in Figure 4-6a. Nominal seasonally adjusted DMI expenditures directed to dairy exports on a quarterly basis ranged from just under \$800 to approximately \$4.6 million. The trend in these DMI expenditures has been upward from 1995 to 2014, averaging about \$2.2 million per quarter over this period. As exhibited in Figure 4-6b, nominal seasonally adjusted funds awarded through USDA’s Foreign Agricultural Service (FAS) directed to exports of dairy products on a quarterly basis varied from just under \$310,000 to about \$1.8 million over the period of 1997 to 2014. On average, FAS funds were nearly \$1 million per quarter. As presented in Figure 4-6c, nominal seasonally adjusted DMI as well as USDA FAS expenditures ranged from \$881 to \$6.1 million per quarter, averaging \$3.2 million on a quarterly basis from 1995 to 2014.

Figure 4-6a. Nominal Seasonally Adjusted Dairy Management Inc., Expenditures Directed to Exports of Dairy Products, 1995.1 to 2014.4



Source: Dairy Management, Inc., and calculations by the authors.

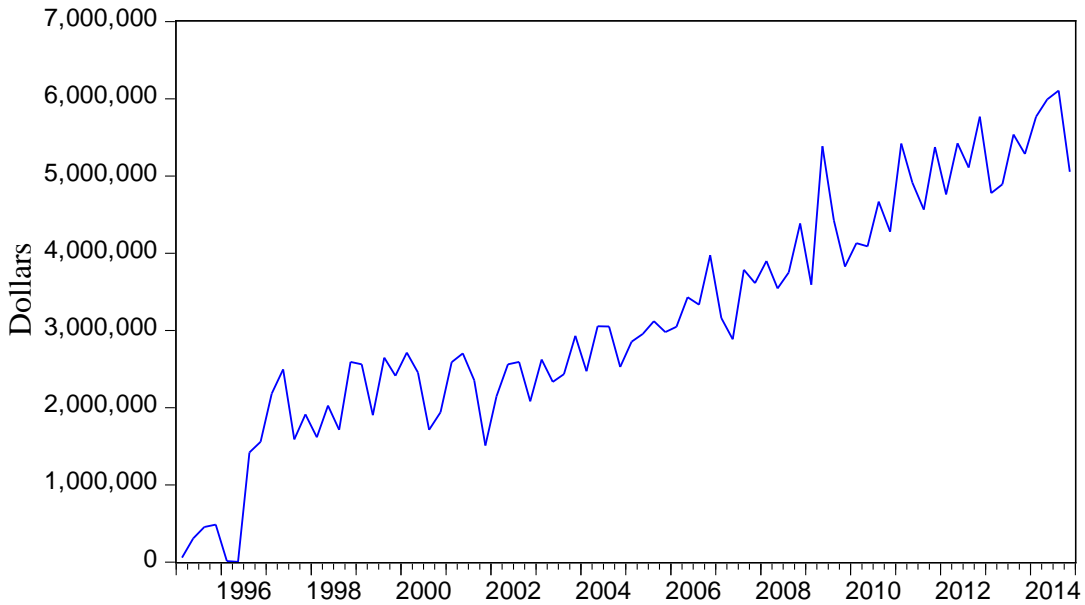
Figure 4-6b. Nominal Seasonally Adjusted U.S. Department of Agriculture Foreign Agricultural Service Funds Awarded to be directed to Exports of Dairy Products, 1997.1 to 2014.4*



*Data were not available prior to 1997. Also, only annual data were available for 1997 and 1998. Quarterly interpolations were made for these years.

Source: U.S. Department of Agriculture, Foreign Agricultural Service and calculations by the authors.

Figure 4-6c. Nominal Seasonally Adjusted Dairy Management, Inc., and U.S. Department of Agriculture, Foreign Agricultural Service Funds Directed to Exports of Dairy Products, 1995.1 to 2014.4



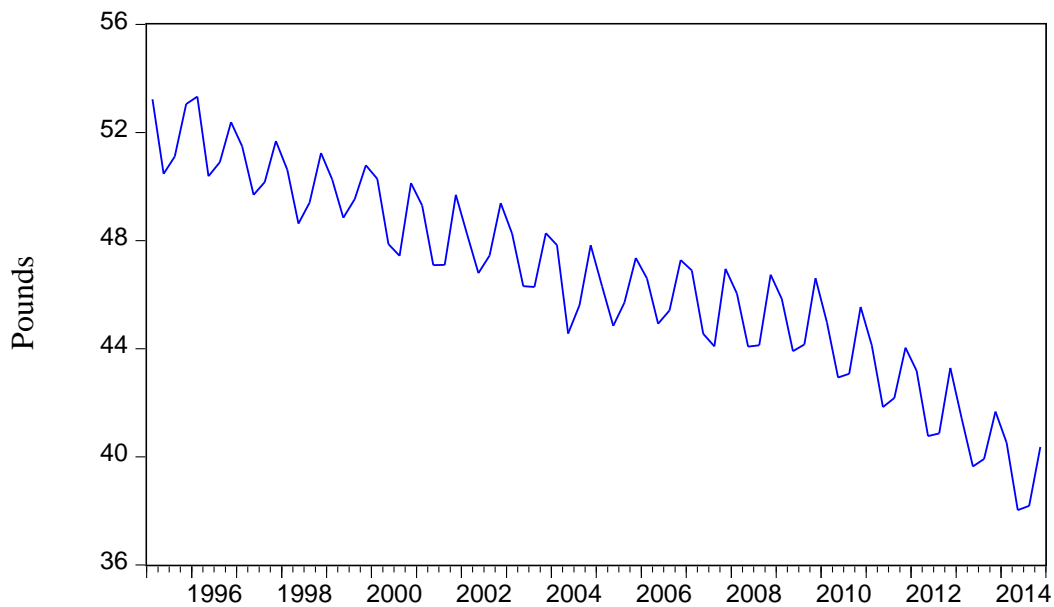
Source: Calculations by authors.

Trends in Consumption

On average, over the 1995-2014 period, quarterly per capita consumption (measured by combining domestic commercial disappearance and imports) of butter, cheese, and fluid milk were 1.2 pounds, 7.9 pounds, and 46.5 pounds, respectively. The range of quarterly consumption for butter was from 0.9 pounds to 1.8 pounds, for cheese from 6.5 pounds to 9.5 pounds, and for fluid milk from 38.0 pounds to 53.3 pounds. Fluid milk consumption has been trending down over the period, on a per capita basis. Cheese consumption per capita has grown modestly (Figures 4-7 to 4-11). Recent research found that declining consumption reflects changes in the frequency of fluid milk intake, rather than changes in portions (Stewart, Dong, and Carlson, 2013). The majority of Americans born in the 1990s tend to consume fluid milk less often than those born in the 1970s, who in turn consume fluid milk less often than those born in the 1950s. U.S. milk consumption has declined 25 percent since 1975 due to changing consumption habits as well as increased competition from other beverages.

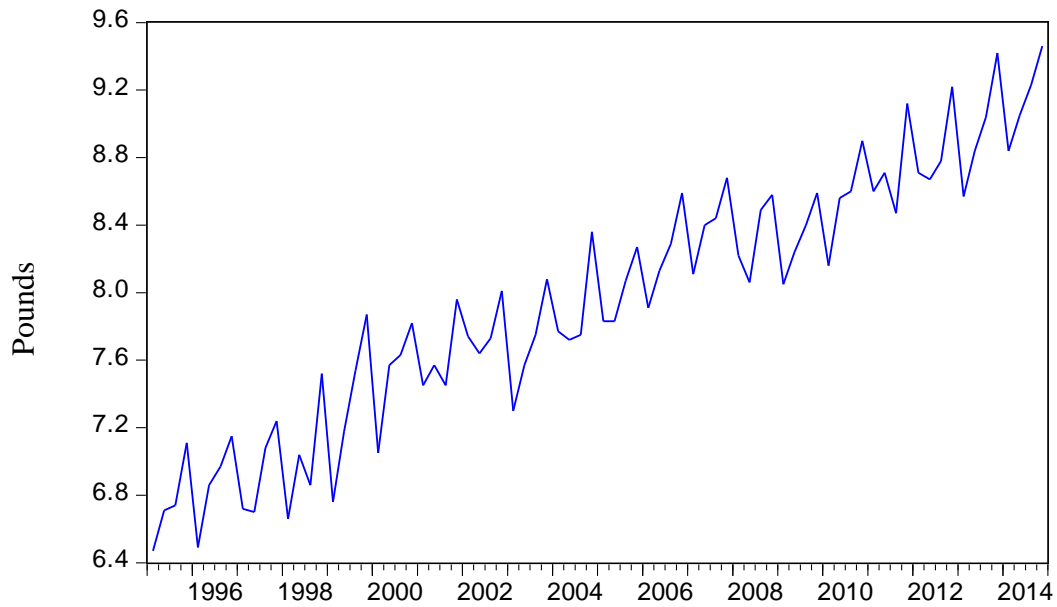
Total U.S. dairy exports over the 1995-2014 period grew strongly. On a milk-equivalent-skim-solids basis, the growth in U.S. dairy exports has been manifestly exponential, from 5.2 billion pounds annually in 1995 to just over 39.0 billion pounds in 2014 (Figure 4-12). Over the same period, measured on a milk-equivalent-fat basis, average quarterly U.S. dairy exports followed a positive but less robust trend from 3.1 billion pounds in 1995 to 12.4 billion pounds in 2014 (Figure 4-12).

Figure 4-7. Per Capita U.S. Consumption of Fluid Milk, 1995.1 to 2014.4



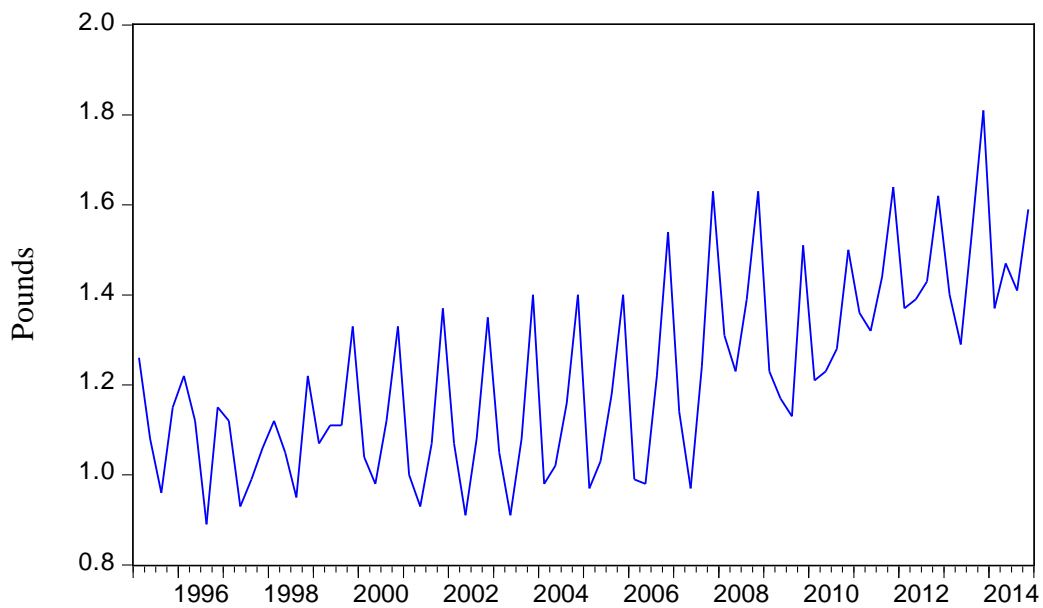
Source: U.S. Department of Agriculture.

Figure 4-8. Per Capita U.S. Consumption of Cheese, 1995.1 to 2014.4



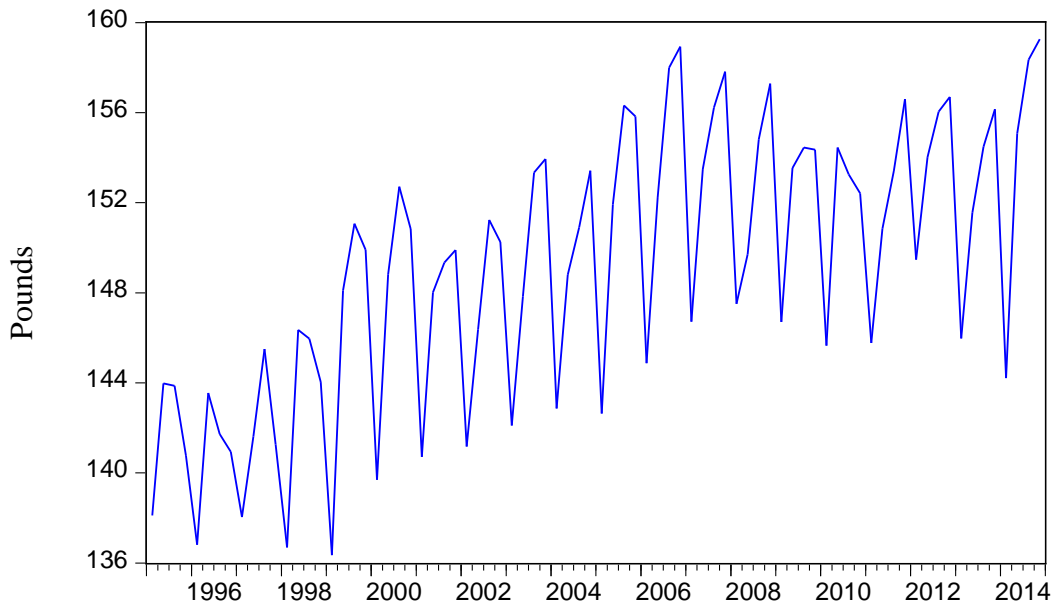
Source: U.S. Department of Agriculture.

Figure 4-9. Per Capita U.S. Consumption of Butter, 1995.1 to 2014.4



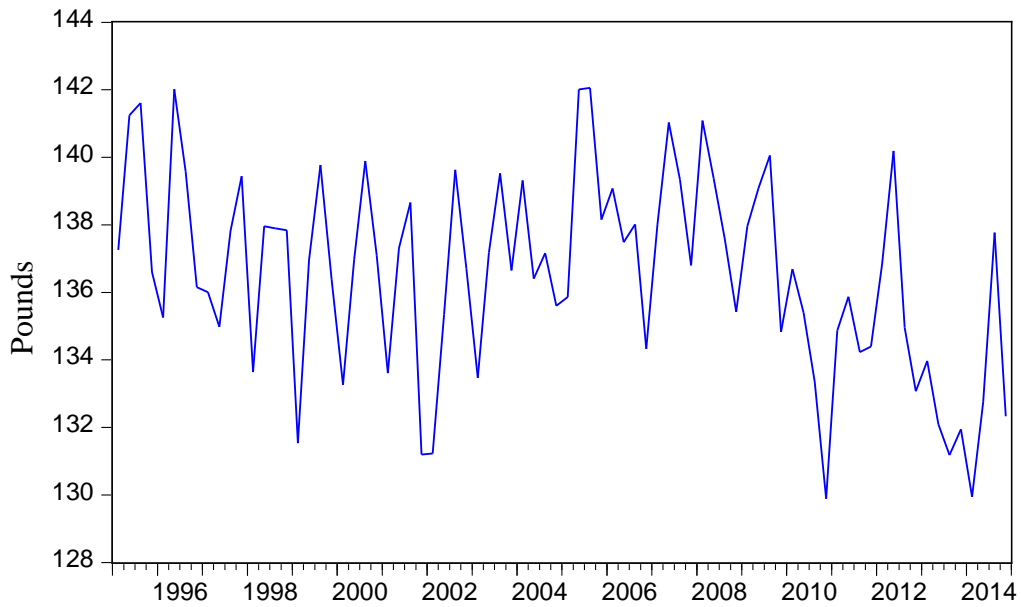
Source: U.S. Department of Agriculture.

Figure 4-10. Per Capita U.S. Consumption of All Dairy Products on a Milk-Equivalent-Fat Basis, 1995.1 to 2014.4



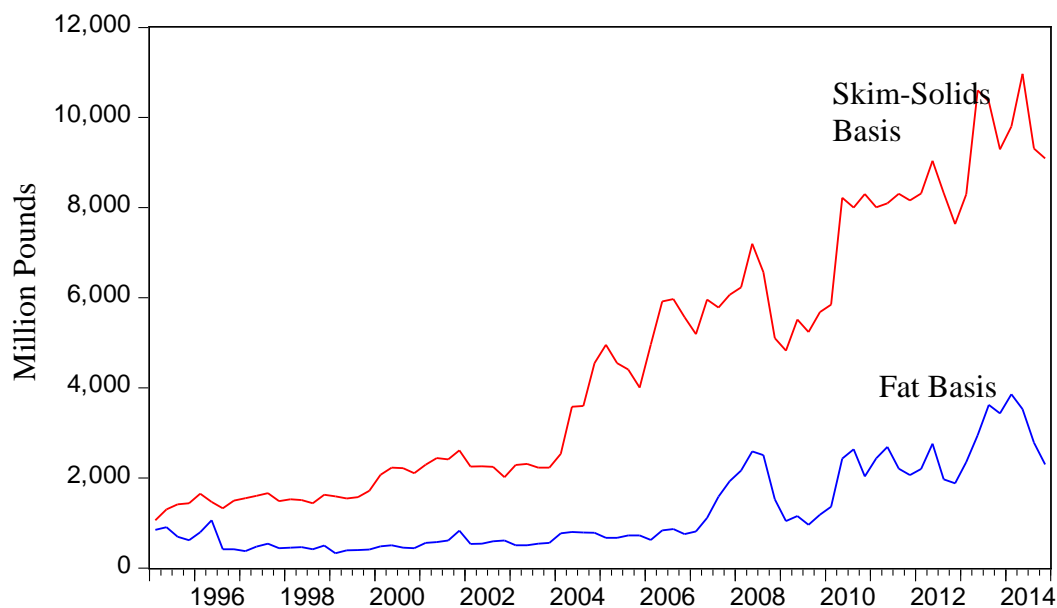
Source: U.S. Department of Agriculture and calculations by the authors.

Figure 4-11. Per Capita U.S. Consumption of All Dairy Products on a Skim-Solids Basis, 1995.1 to 2014.4



Source: U.S. Department of Agriculture and calculations by the authors.

Figure 4-12. U.S. Dairy Commercial Exports on a Milk-Equivalent-Fat Basis and Skim-Solids Basis, 1995.1 to 2014.4



Source: U.S. Department of Agriculture and calculations by the authors.

Overall, the long-run trend of declining consumption of fluid milk is continuing, while per capita consumption of other dairy products has been growing. Given this setting, the analysis must address whether consumers responded to the demand-enhancing expenditures associated with dairy promotion programs. Structural economic models were developed to isolate the sensitivity of consumers to the demand-enhancing expenditures from the effects of fundamental economic forces such as price and income. The results are reported in the next section.

Findings on Impacts of Demand-Enhancing Expenditures for Dairy Products

This evaluation study indicates a significant positive association between promotion program expenditures and consumer demand. This association holds for all dairy products in the aggregate and for fluid milk, cheese, butter, and the activities of the Dairy Research and Promotion Program and the Fluid Milk Processor Promotion Program individually. The impact is modest during the quarter in which expenditures are made, while the cumulative impact is over time measurably larger.

The key indicator of the impact of marketing and promotion expenditures is a measure of the relative sensitivity of consumer demand to demand-enhancing expenditures. This measure, also known as elasticity, is defined as the percentage change in consumption given a 1-percent change in demand-enhancing expenditures, while holding all other variables constant.

Attention is centered on the retail level of the marketing chain, and the economic model provides structural parameter estimates that are statistically valid and consistent with prior studies in the literature on evaluation of generic commodity promotion. This analysis allows the promotion elasticities to vary over time, with variation in expenditures. Some of the key findings of the

economic analysis are as follows:

- Demand-enhancing expenditures have a significant positive impact on domestic consumption of dairy products. (Domestic consumption is defined as domestic commercial disappearance plus imports.)
- The dairy markets were more responsive to demand-enhancing expenditures in comparison to last year.

The demand responsiveness to promotion was allowed to vary over time. Further, the cumulative impact of promotion was also identified. It was found that demand-enhancing expenditures affect the market for cheese for up to six quarters. The lagged effect on fluid milk was over 16 quarters, and for butter, the lagged effect was over 11 quarters. For the aggregate of all dairy products, the lagged effect persisted for 9 quarters on a fat basis and for 12 quarters on a skim-solids basis.

To measure the effects of DMI export promotion enhancement expenditures on U.S. dairy commercial exports, two U.S. dairy export demand models were specified and estimated using two different measures of dairy exports: (1) the measure of dairy exports on milk-equivalent-skim-solids basis (SSB) supplied by USDA; and (2) the measure of dairy exports on a milk-equivalent-fat basis (FB) supplied by USDA. Simply put, when U.S. prices are low (high) relative to Oceania export prices, more (less) is exported.⁶

Table 4-2. Estimates of the Sensitivity of Demand to Promotion, Prices, and Income, 1995 to 2014

	Promotion Elasticity 1995 to 2014	Promotion Elasticity 2014 only	Own-Price Elasticity	Income Elasticity
Butter ¹	0.057	0.064	-0.274	0.545
Cheese ¹	0.037	0.027	-0.124	0.241
Fluid milk ¹	0.089	0.073	-0.051	0.111
All dairy ¹				
Skim solids basis	0.062	0.053	-0.097	0.251
Fat basis	0.035	0.031	-0.044	0.370
Exports ¹				
Skim solids basis	0.060	0.060	-0.270	0.742
Fat basis	0.073	0.073	-0.239	0.968

¹Over the time period 1995.1 to 2014.4.

⁶ Drivers of demand included lags of the ratio of the Oceania export butter price to the U.S. butter price on a fat basis; lags of the ratio of the Oceania export price for skim milk powder (SMP) to the U.S. nonfat dry milk (NDM) price on a skim-solids basis; lags of the measure of world income calculated as the trade-weighted, real gross domestic products of major importing countries; and inertia or stickiness of dairy exports in world markets.

The lag length for export promotion expenditures on an SSB was estimated to be 9 quarters. The export promotion expenditure elasticity was calculated to be 0.060 in the sample period, indicative of a statistically significant effect of promotion.

The lag length for the export promotion expenditures on a milk-fat basis was estimated to be six quarters. The export promotion expenditure elasticity was calculated to be 0.073, indicative once again of a statistically significant effect of promotion.

Estimation of Consumption Changes Attributed to Promotion Program Expenditures

The primary objective of the analysis provided in this section is to answer the key question regarding the National Programs over time: what have been the effects of dairy promotion programs on the domestic consumption of fluid milk, dairy products, and exports? In answering the key question, the focus is on the effects of the dairy promotion program on the U.S. demand and exports of fluid milk and dairy products. Once these market effects have been determined, a benefit-cost analysis of the dairy program at the producer level and at the fluid milk processor level can be done. In the analysis, the producer BCR of the dairy promotion program is calculated as the additional net producer revenues (profit) generated by the promotion program divided by the cost of the promotion programs. By using profit over costs, a more complete and realistic BCR is calculated for producers. The fluid milk processors' BCR is calculated similarly to the producers; the cost of milk is used as a proxy for the cost of production since data for fluid milk processors' cost of production are not available. The analysis covers the period of 1995 to 2014 and also decomposes the results for comparison purposes into four similar time periods: (1) 1995-1999, (2) 2000-2004, (3) 2005-2009, and (4) 2010-2014.

This analysis is partially accomplished by aligning the annual model of the U.S. dairy industry maintained at the University of Missouri Agricultural Markets and Policy Group Dairy Model (AMAP Dairy Model) with the observed data over the 1995-2014 period. The impact of promotion is obtained by removing demand-enhancing expenditures from the system. There is a simulated "demand-enhancement" scenario representing the actual history, contrasted with a simulated "no demand-enhancement" scenario (the counterfactual) to reflect the levels of prices and quantities expected in the absence of the dairy promotion programs.

This analysis uses the AMAP Dairy Model as modified to account for dairy promotion to answer the question posed above regarding the effects of dairy promotion on U.S. dairy markets and exports. For this analysis, the AMAP structural dairy model was simulated over the 1995-2014 period to identify how dairy markets would have functioned in the absence of promotion. The results for selected key variables in the model for the "promotion" and "no promotion" scenarios are presented in Table 4-3.

Table 4-3 provides a comparison of the "promotion" levels of each variable (actual historical data) to the "no promotion" levels (simulated levels without promotion) to show the effects across time from dairy promotion spending. There are many factors at play in the year-by-year results including the level of promotion expenditures each year and the supply dynamics built into the AMAP structural dairy model. In order to provide some insight into these model dynamics, Table 3 shows four sub-periods of results as well as the entire period for selected

endogenous variables. This analysis starts in 1995 and ignores any promotion effects that would have occurred prior to 1995.

Because no other exogenous variable in the model (e.g., levels of inflation, exchange rates, income levels, government policies, etc.) other than dairy promotion expenditures is allowed to change in either scenario, this process effectively isolates the effects of the dairy promotion program on U.S. dairy markets and exports. That is, the simulated differences between the values of the endogenous variables from the “promotion” scenario and those from the “no promotion” scenario in which those expenditures are set to zero provide direct measures of the historical effects of the dairy promotion expenditures (and only those expenditures) on U.S. dairy markets and exports.

Over the period 1995-2014, per capita consumption of fluid milk, cheese, and butter rose by 9.0 percent, 4.6 percent, and 5.5 percent respectively due to promotion efforts, all other factors held constant. The overall downward trend of per capita fluid milk consumption is mitigated as a result of National Programs. If promotion did not exist, then consumption would have been 187.79 pounds per capita instead of 204.69 pounds per capita over the 1995-2014 period. Hence, the National Programs spending on fluid milk reduced the rate of decline. Per capita consumption of nonfat dry milk would have been 3.28 pounds per capita without promotion versus 3.21 pounds per capita with promotion over the 1995 to 2014 period.

In the 2000-2004 period, the dairy product markets had several factors at play that provide different results depending on the dairy product in question. First, remember that cheese and fluid milk received the largest portion of dairy promotion dollars. For these two products, consumption remained higher as a result of promotion. Butter promotion was modest over this particular period and increased consumption by 4.7 percent.

In the period 2005 to 2009, a return to stronger butter promotional spending in 2004, following relatively low levels from 1998 to 2003, resulted in increased per capita consumption by 0.27 pounds when comparing the no-promotion to promotion levels. In the previous period (2000-2004), the per capita consumption only increased by 0.20 pounds when comparing the no-promotion to promotion levels.

Promotional spending in nominal terms on all dairy products increased in 2010 through 2014 to a level not seen previously, leading to increases of cheese and butter consumption. Actual cheese consumption in this period was up 1.10 pounds per capita from the 2005-2009 period. Actual butter consumption was up 0.57 pounds per capita from the 2005-2009 period.

Table 4-3. Effects of Dairy Promotion on U.S. Dairy Markets Based on Simulation of Supply

Period		Fluid Milk Per Capita Consumption	Cheese Per Capita Consumption	Butter Per Capita Consumption	Nonfat Dry Milk Per Capita Consumption
		<i>(pounds)</i>			
1995 - 1999	With Promotion	215.46	27.69	4.38	3.30
	No Promotion	194.71	26.41	4.19	3.40
	Change	20.75	1.27	0.19	-0.10
	Percent Change	10.7%	4.8%	4.4%	-2.9%
2000 - 2004	With Promotion	206.51	30.49	4.48	3.33
	No Promotion	188.43	29.05	4.28	3.40
	Change	18.07	1.45	0.20	-0.07
	Percent Change	9.6%	5.0%	4.7%	-2.2%
2005 - 2009	With Promotion	202.95	32.4	4.81	3.30
	No Promotion	187.09	31.07	4.54	3.34
	Change	15.87	1.33	0.27	-0.05
	Percent Change	8.5%	4.3%	6.0%	-1.5%
2010 - 2014	With Promotion	193.57	33.24	5.33	2.94
	No Promotion	180.16	31.91	5.01	2.97
	Change	13.4	1.33	0.31	-0.02
	Percent Change	7.4%	4.2%	6.3%	-0.8%
1995 - 2014	With Promotion	204.69	30.76	4.73	3.21
	No Promotion	187.79	29.42	4.49	3.28
	Change	16.9	1.34	0.24	-0.06
	Percent Change	9.0%	4.6%	5.5%	-1.9%

Source: Calculation by the authors.

Benefit-Cost Ratios

Based on a comparative analysis of the promotion and no-promotion scenarios as summarized in the previous section and illustrated in Table 4-4, the answer to the key question posed earlier regarding the National Programs, as it relates to the analyzed products, is that they have effectively increased the demand of promoted dairy products.

This section provides a benefit-cost analysis of the National Programs based on the results of the scenario analyses discussed in the previous section. As calculated, the producer profit BCR is the additional industry profits (additional cash receipts net of additional production costs and promotion assessments) earned by producers as a consequence of the promotion expenditures (as measured through the scenario analyses) divided by the historical level of promotion expenditures made to generate those additional profits. By using a profit BCR, a more complete and realistic analysis is conducted. This measure more accurately captures the additional net

revenue gained from promotional expenditures.

Over the period 1995-2014, the gains in profit at the producer level were far larger than the expenditures on demand-enhancement programs. The BCRs for producers for fluid milk were calculated to be \$3.93 for every dollar invested in demand-enhancing activities; for cheese, \$6.21 for every dollar invested; and for butter, \$29.53 for every dollar invested. Dairy export promotion expenditures have increased the foreign demand for U.S. dairy products by \$5.67 for every dollar invested. For an aggregate of all dairy products, the net profit BCR is approximately \$5.50 for every dollar spent.

The fluid milk processor BCR cannot be calculated as completely as the producer BCR since the cost-of-production data are not available. To calculate the fluid milk BCR, the milk costs are used as a proxy for cost-of-production since milk would be the largest input cost. Over the period 1995-2014, the gains in profit at the fluid milk processor level were far larger than the expenditures on demand-enhancement programs. The BCRs for fluid milk were calculated to be \$4.87 for every dollar invested in demand-enhancing activities for fluid milk processors (Table 4-5).

Table 4-4. Calculated Benefit-Cost Ratio (BCRs), in Net Profit at the Producer Level Attributed to the National Programs, 1995 to 2014

Producers	
Product	BCR
All Dairy	5.50
Fluid milk	3.93
Cheese	6.71
Butter	29.53
Exports	5.67

Source: Calculations by the authors.

Table 4-5. Calculated Benefit-Cost Ratio (BCRs), in Net Profit at the Fluid Milk Processor Level Attributed to Fluid Milk Promotion Program, 1995 to 2014

Fluid Milk Processors	
Product	BCR
Fluid Milk	4.87

Source: Calculations by the authors.

Dairy Product Imports and the Import Assessment

The United States imported between \$2.5 billion and \$3.5 billion in dairy products in each of the last 5 years (Table 4-6). Cheese products accounted for slightly more than one-third, by value, of the dairy imports (Figure 13). Cheese imports as a percent of total dairy imports were highest in 2010 at 39 percent and lowest in 2012 at 36 percent. Cheese imports grew faster in value terms than in tonnage between 2010 and 2014, indicating that imports have increasingly been comprised of higher value product types.

USDA’s Economic Research Service publishes a widely used series on dairy imports which includes only cheese, milk products, yogurt, and fluid milk. By that definition of dairy products, cheese has been between 93 percent and 96 percent of the value of U.S. dairy imports.

Effective April 1, 2011, importers of dairy products paid assessments to the national dairy marketing and promotion programs. The amount collected is based on milk content as follows:

“This rule requires importers to calculate assessments due based upon documentation concerning the cow’s milk solids content of the imported products. Products shall be assessed at the rate of \$0.01327 per kilogram of cow’s milk solids.” (Agricultural Marketing Service, in Federal Register, p. 14479).

Two-thirds of the import assessment is allocated to the National Dairy Board, and the remaining amount can be designated to be used by one of three QPs: (1) Cheese Importers Association of America; (2) Global Dairy Platform; and (3) the Wisconsin Milk Marketing Board, Inc.

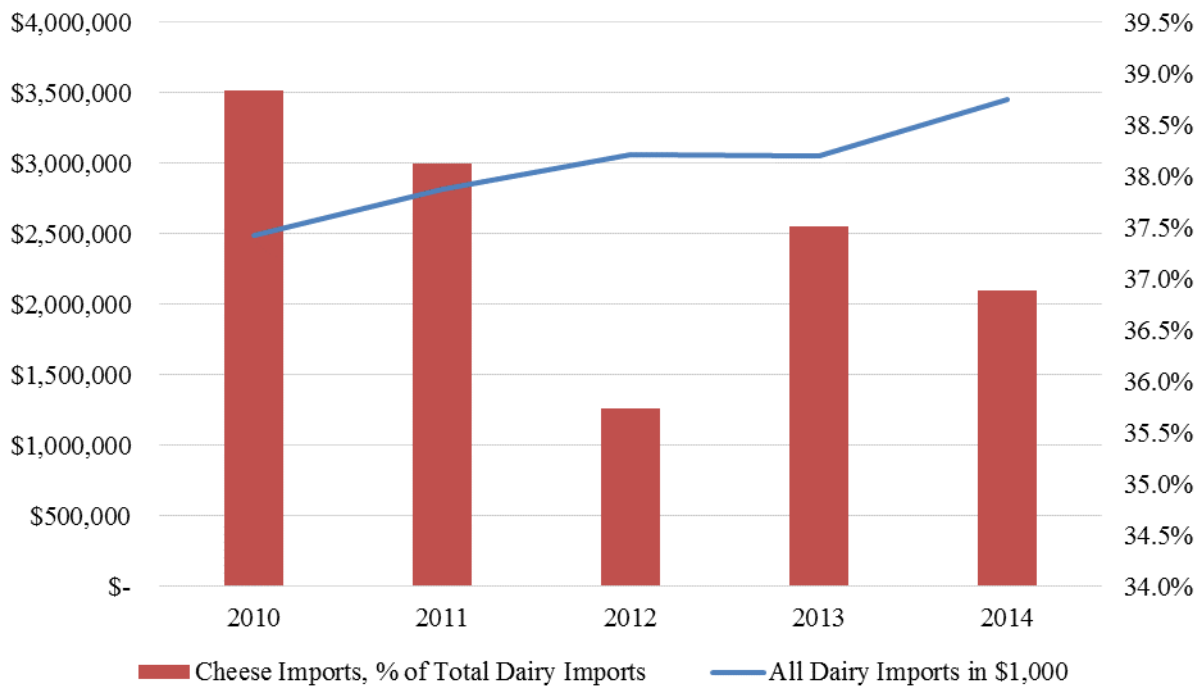
Table 4-6. U.S. Dairy Product Imports and Import Assessment Funds, 2010-2014

	2010	2011	2012	2013	2014
Imports All Dairy Value \$1,000	\$2,489,935	\$2,814,200	\$3,059,069	\$3,051,985	\$3,454,336
Value of Cheese Imports, \$1,000	\$967,031	\$1,072,952	\$1,093,017	\$1,145,000	\$1,274,723
Quantity of Cheese Imports, metric ton (MT)	138,539	142,166	153,964	147,196	164,777
Unit value of Cheese Imports in \$ per MT	\$6,980	\$7,547	\$7,099	\$7,779	\$7,736
Import Assessment funds in \$		\$1,057,003	\$3,522,145	\$3,415,218	\$3,411,353
Import Assessment in \$ per \$1,000 of dairy imports			\$1.15	\$1.12	\$0.99

¹2011 - The import assessment went into effect April 1, 2011. Funds were collected in each month from September 2011 to present.

Sources: Import Assessment data from U.S. Department of Agriculture, Agricultural Marketing Service. Trade data from U.S. Department of Agriculture, Foreign Agricultural Service.

Figure 4-13. U.S. Dairy Imports and Share of Cheese in Dairy Import Value, 2010-2014



Source: U.S. Department of Agriculture, Foreign Agricultural Service

Import assessment funds totaled between \$3.41 million and \$3.53 million per year during the 3 full years of 2012, 2013, and 2014, in which the import assessment has been in effect. The total funds collected declined modestly in each year from 2012 to 2014. The cumulative import assessment funds totaled \$11,405,718 from September 2011 to December 2014. The import assessment has amounted to less than 1.0 percent of the total demand-enhancing expenditures by DMI and the QPs in each year between 2012 and 2014.

Economic Factors Affecting Imports

The combination of relatively high producer prices recently for dairy products and a reduction in the cost of feed contributed to production growth among most of the leading dairy exporting countries (FAS, USDA). Dairy production rose between 3.0 percent and 7.0 percent in 2014 relative to 2013 in the European Union, New Zealand, and Australia (FAS, USDA). The increase in production contributed to the reduction in world prices of dairy products. This general trend was borne out in U.S. import data for cheese products. The quantity of cheese imported increased substantially, from 147,196 metric tons in 2013 to 164,777 metric tons in 2014. Over the same year, unit values of the cheese imported fell marginally (by 0.5 percent).

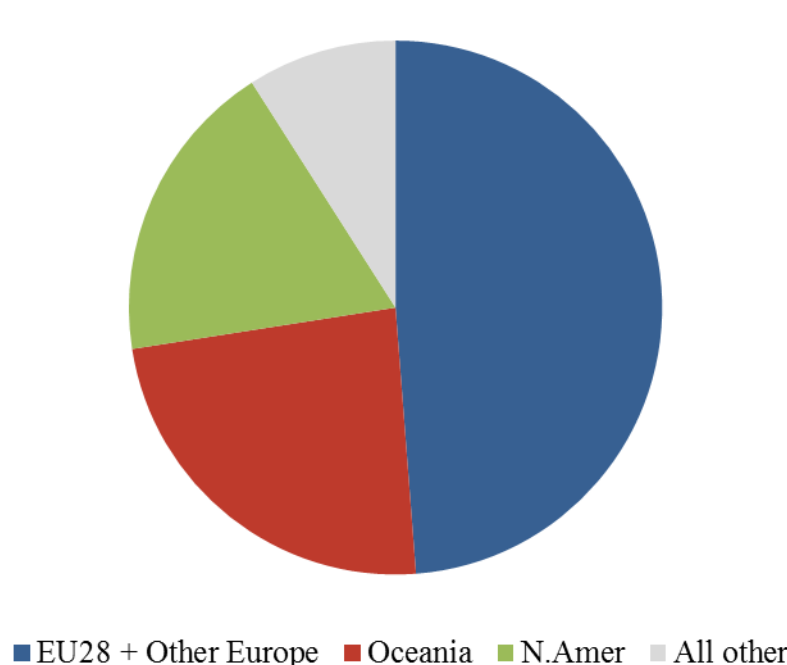
In addition to the economic fundamentals, there were two events that influenced world dairy trade: (1) Russia’s import ban; and (2) a reduction in China’s demand for whole milk powder. In August 2014, Russia announced a ban on imports of food from the European Union and from

the United States (The Guardian). The United States has not been a major dairy supplier to Russia. However, the EU was a major supplier of dairy products to Russia (Figure 4-14), and the greater availability of product on the world market tended to stimulate more imports to the United States.

In light of these positive trends for imports, particularly for imported cheese, dairy import assessment funds have not demonstrated a similar trend. The month-to-month trend has been somewhat variable but basically flat, as shown in Figure 4-15. As exhibited in Figure 4-15, on a monthly basis, funds from the dairy import assessment ranged from \$210,086 to \$465,976, averaging \$290,860 over the period September 2011 to May 2014. Further, on an annual basis, the funds collected under the import assessment fell in each of the 3 full years of the program, 2012 through 2014 (Table 4-6).

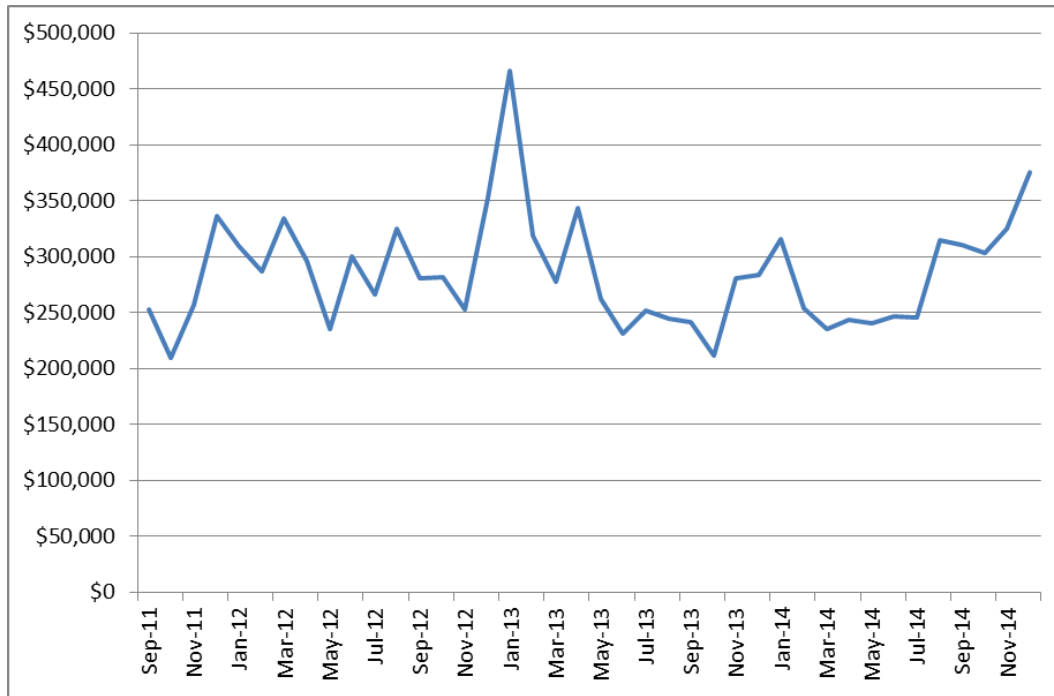
The rising imports yet lower import assessment might be explained by reference to the milk solids content in the imported goods. In cheese, for example, the milk solids content (nonfat) varies across the product types. Dry milk powder is nearly 100 percent milk solids. Other foods that contain dairy products also may have varying amounts of milk solids according to the recipes that may be proprietary or can be changed by the manufacturer. Dairy importers may have been adjusting the assessments due by clarifying the exact milk-solid component over the course of implementing the program. Alternatively, the mix of products imported may have changed in favor of those having less milk solids due to pricing or demand or availability. Recall that imported dairy products are assessed at the rate of \$0.01327 per kilogram of cow's milk solids.

Figure 4-14. Source Countries of U.S. Dairy Imports, 2014, in \$1,000



Source: U.S. Department of Agriculture, Foreign Agricultural Service

Figure 4-15. Funds From Dairy Import Assessments, by Month, September 2011 to May 2014



Source: U.S. Department of Agriculture.

Impact of the Import Assessment

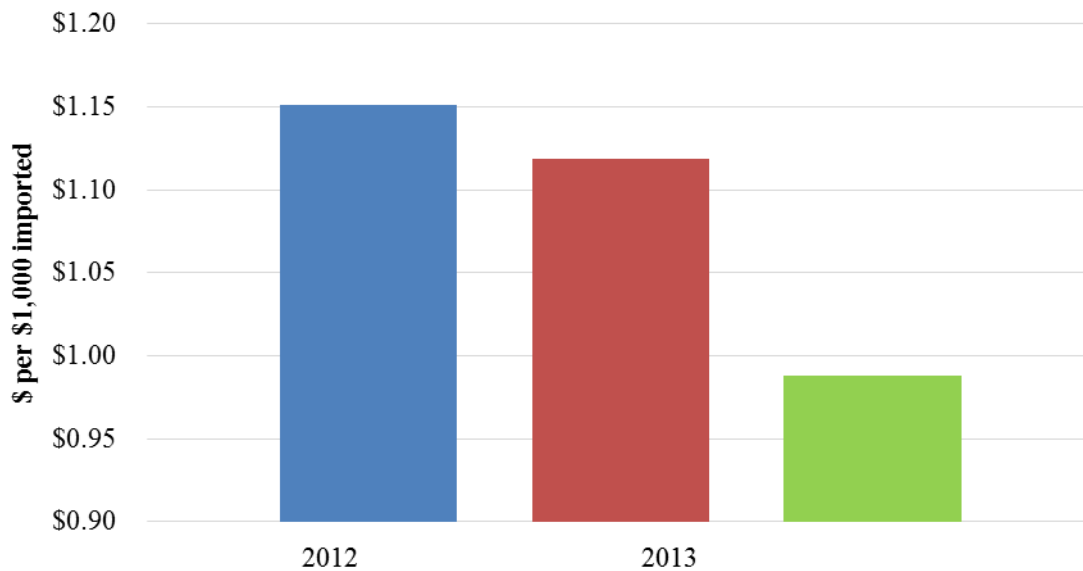
During the first 3 full years of the import assessment program (2012-2014), the assessment in terms of the total value of dairy imports has been around \$1 per \$1,000 of imported dairy products (Figure 4-16). The majority of the import assessment is distributed to the national promotion programs implemented by DMI. Funds from the import assessments constituted a small addition to the total pool of promotion funding. In 2014, for example, total demand-enhancing expenditures were \$395 million of which \$3.4 million, or less than 1.0 percent, was from the import assessment.

An analysis of the cumulative effect of the import assessment was completed using a simulation model of the dairy industry. To address the impact of the import assessment, we simulate the impact of the dairy promotion program with the import assessment and the impact of the dairy promotion program without the import assessment. All import assessment funds are assumed to be spent on demand-enhancing activities. The analysis uses the same AMAP Dairy Model described previously.

The change in quantity demanded for cheese attributed to import assessments is based upon the same level of demand shift estimated for cheese. This step provided the “shock” in the AMAP Model which yielded corresponding interactions between dairy product demand, prices, and subsequent production and import levels. The reason to apply the shift to cheese is that import

assessments flow through QPs oriented toward cheese and to the National Dairy Board and not through the fluid milk promotion efforts.

Figure 4-1. Ad Valorem Calculation of the Import Assessment, All Dairy (in \$ per \$1,000 imported)



Source: Data on import assessment from the U.S. Department of Agriculture, Agricultural Marketing Service and trade data from the U.S. Department of Agriculture, Foreign Agricultural Service. Calculations by the authors.

Cheese occupies about one-third of total imported dairy products, by value, and also has adequate data to conduct a thorough analysis; therefore, cheese is the focus of this section. Due to promotion funds collected from importers, imported cheese levels were higher by roughly 1.0 million pounds to 1.5 million pounds. Further, unit values of cheese imports amounted to roughly \$3.42 per pound on average over the period 2011 to 2014. Hence, incremental revenue to importers solely from cheese attributed to the import assessment totaled \$3.4 million to \$5.3 million.

Concluding Remarks

This report provides the independent evaluation of the effectiveness of the dairy producer, dairy importer, and fluid milk processor promotion programs, covering the period 1995-2014. The key findings regarding markets for milk and manufactured dairy products include:

- The National Programs have effectively increased the demand of promoted dairy products, especially for cheese and butter, while lessening the decline in per capita fluid milk consumption. The gains in profit at the producer and fluid milk processor level were far larger than the costs of the National Programs.

- The overall BCR (using profit over costs) of the dairy producer promotion program was calculated to be 5.50; that is, for every \$1 spent on demand-enhancing activities, dairy producers received an additional \$5.50.
- The BCRs for producers for fluid milk were calculated to be \$3.93 for every dollar invested in demand-enhancing activities; for cheese, \$6.71 for every dollar invested; and for butter, \$29.53 for every dollar invested. The BCR of export promotion was \$5.67 per dollar invested.
- The United States imported between \$2.5 billion and \$3.5 billion in dairy products in each of the last 5 years. Cheese products accounted for slightly more than one-third, by value, of the dairy imports. Import assessment funds totaled between \$3.41 million and \$3.53 million dollars per year during 2012, 2013, and 2014. The import assessment has amounted to less than 1.0 percent of the total demand-enhancing expenditures by DMI and the QPs.
- Due to promotion funds collected from importers, imported cheese levels were higher by roughly 1.0 million pounds to 1.5 million pounds. Unit values of cheese imports amounted to roughly \$3.42 per pound on average over the period 2011 to 2014. Hence, incremental revenue to importers solely from cheese attributed to the import assessment totaled roughly \$3.4 million to \$5.3 million.
- The BCR for fluid milk processors attributed to the fluid milk promotion program was calculated to be \$4.87.
- With regard to methodology, the structural econometric models that are presented in this report are statistically valid and largely consistent with prior studies in the literature on evaluation of generic commodity promotion. The simulation analysis was accomplished by aligning the annual AMAP Dairy Model with the observed data over the 1995-2014 period. The baseline period is 1995 to 2014 and the impact of promotion was obtained by removing demand-enhancing expenditures from the system (the counterfactual)⁷.

⁷ A reference list is available upon request.

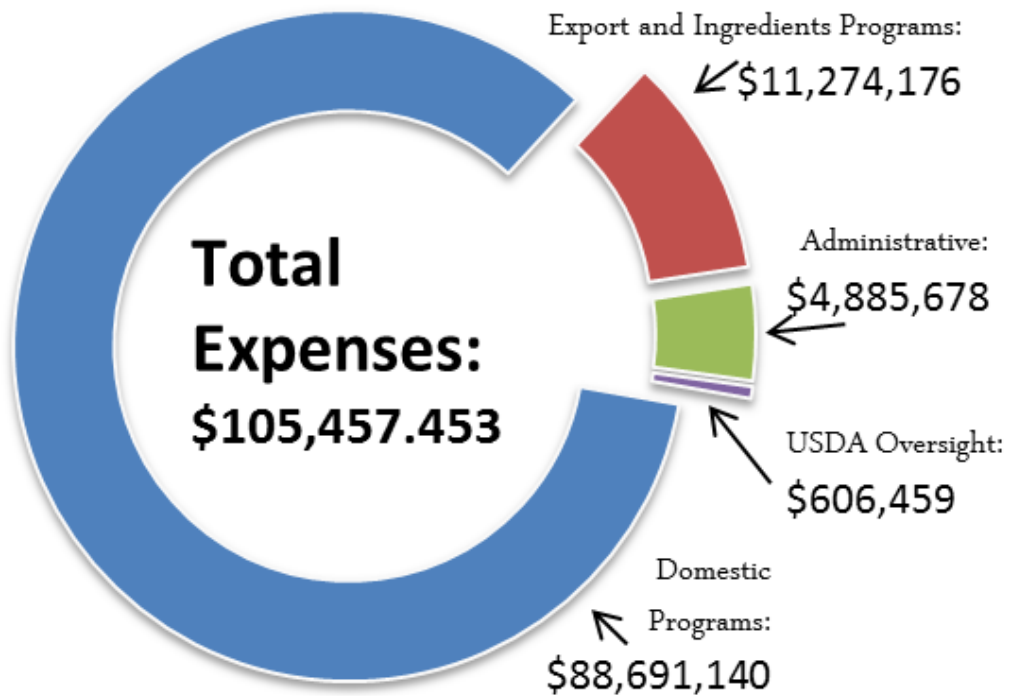
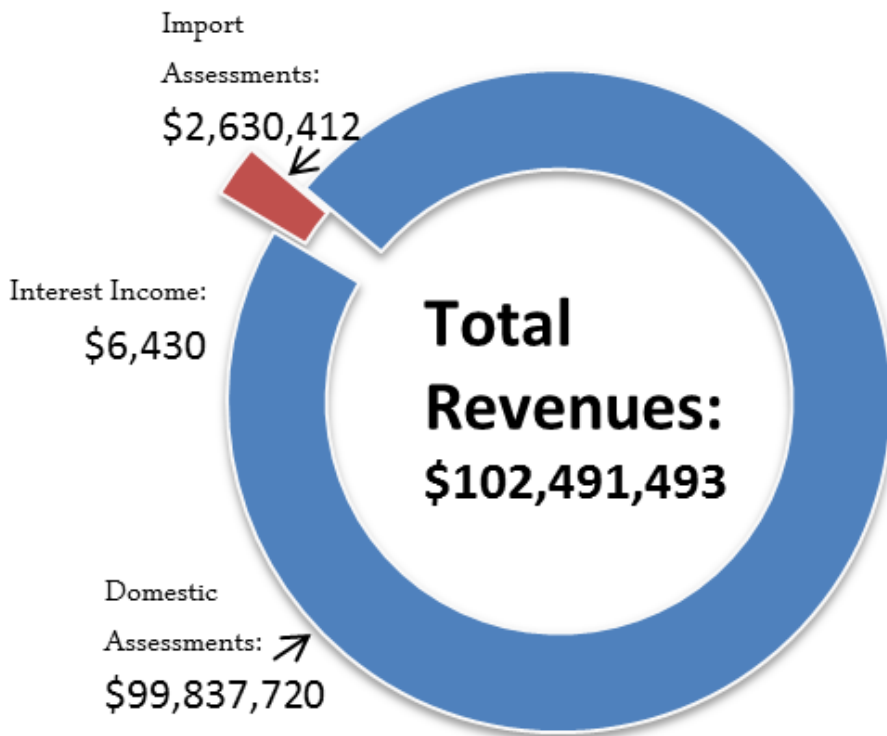
Chapter 5

National Dairy Promotion and Research Board 2013 & 2014 Financial Information

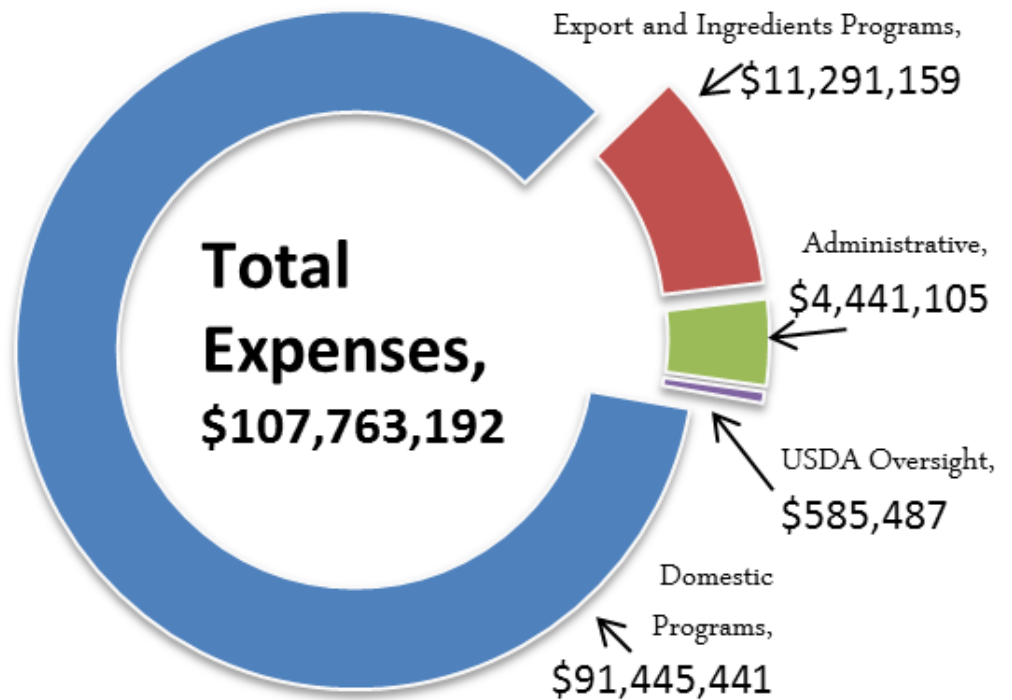
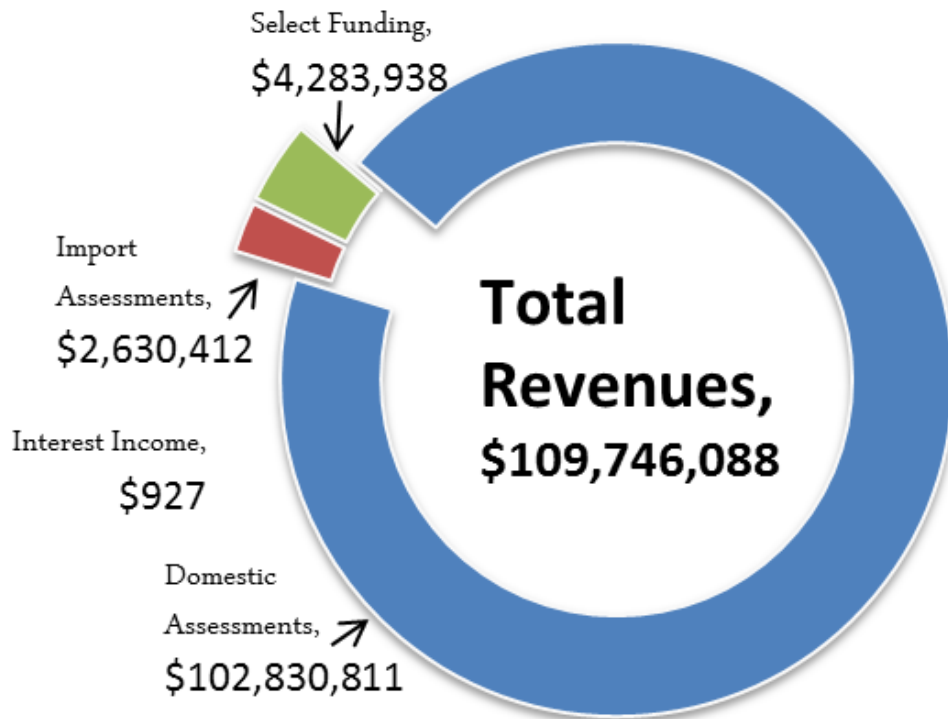
National Dairy Board activities are funded by U.S. dairy producers and dairy importers. U.S. dairy producers pay a mandatory 15-cent-per-hundredweight assessment on their milk, and importers pay 7.5 cents per hundredweight, or the equivalent thereof, on dairy products imported into the United States.

The Dairy Board's revenue for 2013 and 2014 was \$102.5 and \$109.7 million, respectively. The Dairy Board's administrative budget continued to be within the 5-percent of revenue limitation required by the Dairy Order. Actual income and expenses for 2013 and 2014 are provided in this chapter as well as the following information: approved Dairy Board budgets; DMI and USDEC contracts reviewed by USDA; a description of the National Dairy Foods Research Centers; active competitive research activity in the areas of dairy foods, nutrition, and sustainability; and the independent audits of the Dairy Board.

National Dairy Promotion and Research Board 2013 Income and Expenses



National Dairy Promotion and Research Board 2014 Income and Expenses



**National Dairy Promotion and Research Board – 2014 Approved Budget
(Thousands)**

Unified Marketing Program Budget

Butter	\$750
Communications	18,803
Dairy Research Institute	10,516
Fuel Up to Play 60	9,990
National Dairy Council: Nutrition Affairs	4,441
Planning & Facilitation	3,385
Strategic Initiatives	38,259
Strategy, Insights and Planning	3,784
Supplemental Regional Programs	6,665
USDEC: Export & Ingredients	<u>18,590</u>
Subtotal	\$115,184
UDIA/Unallocated Expense Share	\$30,721
Board Expense Share	\$84,463
Total Budget Expenditures	<u>\$115,184</u>

Source: Budgets received and approved by the USDA from the National Dairy Promotion and Research Board.

**National Dairy Promotion and Research Board – 2015 Approved Budget
(Thousands)**

Unified Marketing Program Budget

Butter	\$1,000
Communications	15,597
Fuel Up to Play 60	9,630
National Dairy Council: Nutrition Affairs	5,227
Planning & Facilitation	3,465
Research	7,416
Resource Recovery	500
Strategic Initiatives	48,434
Strategy, Insights and Planning	3,766
Supplemental Regional Programs	7,100
Sustainability	3,061
USDEC: Export & Ingredients	<u>18,124</u>
Subtotal	\$123,320
UDIA/Unallocated Expense Share	\$32,934
National Dairy Promotion and Research Board Share	<u>90,396</u>
Total Budget Expenditures	<u>\$123,320</u>

Source: Budgets received and approved by the USDA from the National Dairy Promotion and Research Board

**2013 National Dairy Promotion and Research Board, Dairy Management Inc., and U.S. Dairy Export Council Contracts
Reviewed by USDA**

2013 ADVERTISING AND MARKETING SERVICES

American Butter Institute	Butter Promotion Partnership
Blue Trellis, LLC	Cookbook Development Services
Diggins, Skylar	Promotion Services
Domino's Pizza Inc.	Cheese Promotion Partnership
D S Simon Productions	National Dairy Month Media
Edelman Public Relations Worldwide	Fuel Up To Play 60; Dairy Image Services; Strategic Consulting and Coordination
Florida Dairy Farmers, Inc.	Unified Marketing Plan Support; Caribbean Dairy Promotions
Food Marketing Support Services	Fluid Milk Promotion
Intech Integrated Marketing Services	Distribution Services
Integrated Program Management Company, Inc.	Project Management Support
McDonald's	Dairy Promotion Partnership
Media Management Services, Inc.	Fuel Up To Play 60 Support
Natural Marketing Institute	Database Management
Nestle USA	Dairy Promotion Partnership
New England Dairy & Food Council	Unified Marketing Plan Support
New England Dairy Promotion Board	Unified Marketing Plan Support
NPD Group, Inc.	Consumer Surveys
Pizza Hut, Inc.	Cheese Promotion Partnership
Prevail Strategic Marketing and Communications, LLC	Partner Innovation Development Services
Quaker Oats Company	Dairy Promotion Partnership
Ruby-Do Special Projects	Industry Image and Relations
Shamrock Foods Company	Refuel Innovation Partnership
Slate LLC	Conference Sponsorship
Southeast United Dairy Industry Association, Inc.	Unified Marketing Plan Support
Symphony/IRI Group, Inc.	Lactose Free Milk Initiative
Taco Bell	Dairy Promotion Partnership

2013 COMMUNICATIONS, NUTRITION EDUCATION, AND PUBLIC RELATIONS

Action for Healthy Kids, Inc.	Fuel Up To Play 60 Support
Academy of Nutrition and Dietetics	Nutrition and Food Safety
American Academy of Pediatrics	Health and Nutrition
ASK-Comm Strategies, LLC	Farm Smart Communications Support Innovation Center; Health and Wellness
Bader Rutter & Associates	Nutrition Education; Lactose Intolerance Communication
Battelle Energy Alliance, LLC	Operations, Energy and Environmental Analysis
Baxter Communications	Video and Communication Services
Burson–Marsteller	Dairy Framework Communications
Demeter Communications	Cow of the Future Program Activities
Direct Image & Design, LLC	Communication Support Services
Family Room Strategic Consulting Group	Fuel Up To Play 60 Promotion Support
Feeding America	Program Sponsorship
Fleishman-Hilliard, Inc.	Communication Planning and Services
FoodMinds, LLC	Cheese & Sodium, Lactose Intolerance, Nutrient Rich Foods and Whey Protein Communications
Food Research and Action Center	School Breakfast and Fuel Up To Play 60
Fresh Approach	Commodity Roundtable
Health & Nutrition Network	Industry Image and Relations
Heinrich Marketing Research	Dairy-Based Breakfast Concepts Study
Hillstrom Communications	Communication Planning and Services
Leveraging Nutrition	Research Project Development
Magnet360, LLC	Portal and Communications Project
MMS Education, Inc.	Fuel Up To Play 60 Support
National Dairy Shrine	Program Sponsorship
National Football League Players Incorporated	Fuel Up To Play 60 Support
National Football League Properties	Fuel Up To Play 60 Support

National Fluid Milk Processor Promotion Board

National Research Council

Nutrition Impact, LLC

Nutrition Strategies

Olson Communications

Planet Technologies

Results Direct

Richter Studios

School Nutrition Association

School Nutrition Foundation

Team Services, LLC

Universal McCann Worldwide

Weber Shandwick, Inc.

World Wildlife Federation

Shared Research and Consulting Services

Dairy Cattle Nutrition Report

Nutrition Project Services

Nutrition Project Services

Meals Innovation Project

Fuel Up To Play 60 Web Site Services

Dairy Web Site Support

Dairy Farming Today Web Site Support

Fuel Up To Play 60 & School Nutrition

Fuel Up To Play 60 & School Nutrition

Fuel Up To Play 60 Support

Lactose Intolerance Communications

Crisis Readiness Program and MyDairy Program

Strategic Coordination Services

2013 EXPORT AND INGREDIENTS

American–Mexican Marketing

Arab Marketing Finance, Inc.

Baccigaluppi, Roger

Berjaya Papa John's Pizza S/B

Blue Flame Partners, LLC

Bovina Mountain Consulting

Bryant Christie, Inc.

Canadean Limited

Center for Food Safety

Cocker Consulting Limited

Contacts International Consulting, Ltd.

Cserwonka, Kelly

Dairy Australia Limited

David Steifer Consulting

D.H. Business

Domino's Pizza Enterprises

Domino's Pizza Australia and New Zealand

Mexican Market Expansion

Middle East Market Expansion

USDEC Consulting Services

Pacific Rim Cheese Program

USDEC Web Site

Nutrition Market Report

International Food Additive Database

Global Dairy Ingredients Database

USDEC Consulting Services

USDEC Consulting Services

South American Market Expansion

USDEC Consulting Services

Elderly Dairy Consumption Study

USDEC Consulting Services

USDEC Consulting Services

Cheese Export Promotion

Pacific Rim Cheese Program

Domino's Pizza Japan	Pacific Rim Cheese Program
Exponent, Inc.	Meta-Analysis of Whey Protein
Fabrizio & Friends	Global Dairy Market Outlook, Market Analysis Report & News Center Web Site
Food Automation, LLC	Traceability Pilots
Forum One Communications	Strategic Analysis
Fritz, Richard	USDEC Consulting Services
Futureau Consulting	Foodservice Report
Gerdes, Sharon	Ingredients Consulting Services
Global Food and Nutrition, Inc.	USDEC Consulting Services
IntNet	Korea Program Activities
Global Research Solutions	Research and Analysis
Natalie Hotrum Food Science, LLC	USDEC Consulting Services
International Dairy Foods Association	International Dairy Trade Shows
JDG Consulting	USDEC Consulting Services
Mel Jolly International Consulting	USDEC Consulting Services
Kentucky Fried Chicken Japan	Pacific Rim Cheese Program
Koski, Shannon	Ingredients Consulting Services
Locraft, Lauren	USDEC Consulting Services
Mathews Project Services	USDEC Consulting Services
Market Makers Inc.	Japanese Market Expansion
Market Tree, LLC	Sweetener Research
McCully Group	Dairy Market Metrics, Strategies and Analysis
Midwest Dairy Association	Unified Marketing Plan; Ingredient Development
MSB Agrifood	United Kingdom and European Dairy Market Metrics and Analysis
MSB Research Limited	Columbia and Venezuela Market Research
NIZO	US Milk Powder Program Activities
Novak Birch	Professional Services
Orrani Consulting, Ltd.	China, Egypt, Korea and Saudi Arabia Cheese and Dairy Ingredient Research
Pacrim Associates	Southeast Asia Program Activities

Papa John's Philippines	Pacific Rim Cheese Program
Papa John's Beijing	Pacific Rim Cheese Program
Papa John's Korea	Pacific Rim Cheese Program
Papa John's Shenzhen Bangyuehang Catering Management Co., Ltd	Pacific Rim Cheese Program
Parker, Hilary	USDEC Consulting Services
Parody, Kristen	USDEC Consulting Services
Peryam and Kroll Research Corporation	Product Shelf Life Test
Pizza Hut Hong Kong	Pacific Rim Cheese Program
Pizza Hut Indonesia	Pacific Rim Cheese Program
Pizza Hut Korea	Pacific Rim Cheese Program
Pizza Hut Philippines	Pacific Rim Cheese Program
Pizza Hut Singapore	Pacific Rim Cheese Program
PR Consultants	Chinese Program Activities
Promar Consulting	Vietnam Market Study
Quadrant Nutrition	Ingredient Consulting Services
Rempfer Consulting, Inc.	Menu Development
Rogers, Paul	USDEC Consulting Services
Siam Professionals, LLC	Common Food Names Project
Schonrock Consulting	USDEC Consulting Services
Science Solutions	USDEC Consulting Services
Shainwright Consulting	Oceana Market Research Services
Shanghai Bangyuehang Catering Management Co. LTD	Pacific Rim Cheese Program
Sheldon, Gerald	USDEC Consulting Services
Snyman, Merle	USDEC Consulting Services
Sorenson, Carla	USDEC Consulting Services
Storlietelling	Dairy Protein Initiative
Story Consulting	USDEC Consulting Services
TradeMoves, LLC	Import Export Trade Strategies
Turim Innovation & Ideation, Inc.	Product Ingredient Consulting
Value Engineers Ltd.	Web Site Research Project
Weppler, Audrey	USDEC Consulting Services
Woosley, Michael	Market Access and Regulatory Affairs
Yum! Restaurants Consulting (Shanghai) Company Limited	Pacific Rim Cheese Program
Zenith International	Global Cheese Varietal Demand Study

2013 MARKET AND ECONOMIC RESEARCH, CONSULTING SERVICES

Acuity Consulting, LLC	Monitoring Consulting Services
Albert, Roger	Accounting Services
Ann Ocana Consulting, LLC	Communication Consulting Services
Arms, Susan	Human Resources Consulting Services
Biofortis Provident Clinical Research	Effects of Dairy Beverages on Insulin Sensitivity
Carr Consulting	Scientific Review
CFE Solutions, Inc.	Dairy Consumption Consulting Services
Clifton Larson Allen LLP	Accounting Services
C&R Research Services	Dairy-Based Breakfast Concepts
Concept Green	Sustainability Progress Report
Culinary Sales Support	Dairy Menu Product Development
Engleman, Beth	Marketing Consulting Services
EnSave, Inc.	Farm Energy Services
Exponent, Inc.	Consumption Meta-Analysis
Fairlife, LLC	Market Research
Fiorenza, Karen	FleetSmart Consulting
GFK Custom Research	Future of Dairy Research
Girag S.A.	Business Intelligence Services
Hale Group	Food Waste Solutions
Harrigan-Bodick, Inc.	Future of Dairy Research
Hartman Group	Purchase Behavior Research
Hatch, Lisa	Lactose Intolerance Consulting Services
HDR Engineering	Sustainability Framework Services
Hentges, Kahn and Strauss, LLC	Sustainability Framework Services
Holmes, Brian	FarmSmart Consulting Services
Hurley Health & Medical	Data Briefs Consulting Services
Jenkinson, Thomas	Image Consulting Services
Joe Bavido Consulting	Tactical Consulting Services
Illustra Design	Design and Graphic Services
Informa Economics	Anaerobic Digesters Research
Irish-Design	Dairy Sustainability Report
Keenan, Judy	Cheese and Sodium Consulting Services
Lawrence-Weiss, Sharon	Marketing Consulting Services

Lee, Maureen
Lipof, Juli
Margherio, Martin
Manomet Center for Conservation Sciences
Marketecture
Marketing Concepts
McLeod, Watkinson & Miller
Michaelian, Britt
National Milk Producers Federation
NTT Data Inc. (formerly Revere Group)
Nutter Consulting, Inc.
Olson, Kenneth
Podbial, Agnes
Quantis
Results Direct
Smith, Kristen
Splitstone, Anne Marie
Strategic Conservation
Strategy One
Technomic, Inc.
Texas AgriLife Research
TNS Custom Research (Kantar)
Vela Environmental
Watson Green, LLC
Webb, Teresa

Media Consulting Services
Marketing Consulting Services
Innovation Consulting
Sustainability Framework and Metrics
Consumer Confidence Tracking
Research Coordination
Legal Services
Marketing Consulting Services
Animal Health and Wellbeing Services
Information Technology Support
PlantSmart Development
Crisis Management Consulting Services
Accounting Consulting Services
Carbon Footprint Calculator Development
Web Site Support Services
Nutrition Guidance Consulting Services
Cheese and Sodium Consulting Services
Consulting Services
Dairy Consumers Research Services
Consumer Cheese Consumption Trends
Quantitative Program Evaluation
Dairy Beverage Usage Development
Dairy Sustainability Framework
Strategic Communications Support
Innovations Consulting

2014 National Dairy Promotion and Research Board, Dairy Management, Inc., and U.S. Dairy Export Council Contracts Reviewed by USDA

2014 ADVERTISING AND MARKETING SERVICES

American Butter Institute	Butter Promotion Partnership
Blue Trellis, LLC	Cookbook Development Services
Diggins, Skylar	Promotion Services
Domino's Pizza, Inc.	Cheese Promotion Partnership
D S Simon Productions	National Dairy Month Media
Edelman Public Relations Worldwide	Fuel Up To Play 60; Dairy Image Services; Strategic Consulting and Coordination
Fair Oaks Adventure	Dairy Promotion Partnership
Florida Dairy Farmers, Inc.	Unified Marketing Plan Support; Caribbean Dairy Promotions
Food Marketing Support Services	Fluid Milk Promotion
HP Hood LLC	Lactose Free Milk Promotion Partnership
Information Resources, Inc.	Promotion Research Services
Intech Integrated Marketing Services	Distribution Services
Integrated Program Management Company, Inc.	Project Management Support
Intersport, Inc.	Media Services
Marketecture	Consumer Confidence Tracking
Marketing Concepts	Research Coordination
McDonald's	Dairy Promotion Partnership
Media Management Services, Inc.	Fuel Up To Play 60 Support
Natural Marketing Institute	Database Management
Nestle USA	Dairy Promotion Partnership
New England Dairy & Food Council	Unified Marketing Plan Support
New England Dairy Promotion Board	Unified Marketing Plan Support
NPD Group, Inc.	Consumer Surveys
Pizza Hut, Inc.	Cheese Promotion Partnership
Prevail Strategic Marketing and Communications, LLC	Partner Innovation Development Services
Quaker Oats Company	Dairy Promotion Partnership

Ruby-Do Special Projects
Select Milk Producers, Inc.
Shamrock Foods Company
Slate, LLC

Southeast United Dairy Industry
Association, Inc.
SRW Marketing, Inc.
Taco Bell
The Washington Post Company

Industry Image and Relations
Dairy Promotion Partnership
Refuel Innovation Partnership
Conference Sponsorship

Unified Marketing Plan Support
Breakfast Lab Support
Dairy Promotion Partnership
Conference Sponsorship

2014 COMMUNICATIONS, NUTRITION EDUCATION AND PUBLIC RELATIONS

451 Marketing
Action for Healthy Kids, Inc.
Academy of Nutrition and Dietetics
American Academy of Pediatrics
American Dairy Association Indiana
ASK-Comm Strategies, LLC

Bader Rutter & Associates

Battelle Energy Alliance, LLC

Baxter Communications
Bovina Mountain Consulting
Burson-Marsteller
College & Professional Sports Dieticians
Association
Demeter Communications
EpidStat Institute
Feeding America
Fleishman-Hilliard, Inc.

FoodMinds, LLC

Food Research and Action Center

Lactose Intolerance Communications
Fuel Up To Play 60 Support
Nutrition and Food Safety
Health and Nutrition
Dairy Communications
Farm Smart Communications Support
Innovation Center; Health and Wellness

Nutrition Education; Lactose Intolerance
Communication

Operations, Energy and Environmental
Analysis

Video and Communication Services

Nutrition Market Report

Dairy Framework Communications

Nutrition Communications

Cow of the Future Program Activities

Nutrition Research

Program Sponsorship

Communication Planning and Services

Cheese & Sodium, Lactose Intolerance,
Nutrient Rich Foods and Whey Protein
Communications

School Breakfast and Fuel Up To Play 60

Foundation for the National Institutes of Health	Nutrition Research
Fresh Approach	Commodity Roundtable
GenYouth Foundation	Nutrition Project Services
Geura, Lisa	Communications Services
Health & Nutrition Network	Industry Image and Relations
Hillstrom Communications	Communication Planning and Services
MMS Education, Inc.	Fuel Up To Play 60 Support
National Dairy Shrine	Program Sponsorship
National Football League Players Incorporated	Fuel Up To Play 60 Support
National Football League Properties	Fuel Up To Play 60 Support
National Fluid Milk Processor Promotion Board	Shared Research and Consulting Services
National Research Council	Dairy Cattle Nutrition Report
Nutrition Impact, LLC	Nutrition Project Services
Nutrition Strategies	Nutrition Project Services
Planet Technologies	Fuel Up To Play 60 Website Services
R.A.M. Production Services, Inc.	Media Production Services
Results Direct	Dairy Website Support
Sandstorm Design, Inc.	Website Support
Sivak, Cathy	Website Support
School Nutrition Association	Fuel Up To Play 60 & School Nutrition
School Nutrition Foundation	Fuel Up To Play 60 & School Nutrition
Share Our Strength	Program Sponsorship
Storlietelling	Dairy Protein Initiative
Strategic Growth Partners, Inc.	Strategic Plan Services
Team Services, LLC	Fuel Up To Play 60 Support
Universal McCann Worldwide	Lactose Intolerance Communications
Watson Green, LLC	Strategic Communications Support
Weber Shandwick, Inc.	Crisis Readiness Program and My Dairy Program
World Food Prize Foundation	Program Sponsorship
World Wildlife Federation	Strategic Coordination Services

2014 EXPORT AND INGREDIENTS

Agribusiness-Connect Asia	Southeast Asia Market Services
American-Mexican Marketing	Mexican Market Services
Arab Marketing Finance, Inc.	Middle East Market Services
Baccigaluppi, Roger	USDEC Consulting Services
Berjaya Papa John's Pizza S/B	Pacific Rim Cheese Program
Bluedog Design, LLC	Market Consulting Services
Blue Flame Partners, LLC	USDEC Website
Bryant Christie, Inc.	International Food Additive Database
Cameron Burris	Economic Research Services
Canadean Limited	Global Dairy Ingredients Database
Catalyst International	Professional Services
Center for Food Safety	USDEC Consulting Services
Contacts International Consulting, Ltd.	South American Market Services
Cserwonka, Kelly	USDEC Consulting Services
Dairy Australia Limited	Elderly Dairy Consumption Study
David Steifer Consulting	USDEC Consulting Services
Domino's Pizza Enterprises	Cheese Export Promotion
Domino's Pizza Australia and New Zealand	Pacific Rim Cheese Program
Domino's Pizza Japan	Pacific Rim Cheese Program
Exponent, Inc.	Meta-Analysis of Whey Protein
	Global Dairy Market Outlook, Market
Fabrizio & Friends	Analysis Report & News Center Website
Flint Group	Economic Research Services
Food Automation, LLC	Traceability Pilots
Fritz, Richard	USDEC Consulting Services
Gerdes, Sharon	Ingredients Consulting Services
Global Food and Nutrition, Inc.	USDEC Consulting Services
IntNet	Korea Program Activities
Natalie Hotrum Food Science, LLC	USDEC Consulting Services
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Kentucky Fried Chicken Japan	Pacific Rim Cheese Program
Koski, Shannon	Ingredients Consulting Services
Locraft, Lauren	USDEC Consulting Services

Mathews Project Services	USDEC Consulting Services
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NIZO	US Milk Powder Program Activities
Novak Birch	Professional Services
Orrani Consulting, Ltd.	China, Egypt, Korea and Saudi Arabia Cheese and Dairy Ingredient Research
Pacrim Associates	Southeast Asia Program Activities
Papa John's Philippines	Pacific Rim Cheese Program
Papa John's Beijing	Pacific Rim Cheese Program
Papa John's Korea	Pacific Rim Cheese Program
Papa John's Malaysia	Pacific Rim Cheese Program
Papa John's Shenzhen Bangyuehang Catering Management Co., Ltd	Pacific Rim Cheese Program
Parker, Hilary	USDEC Consulting Services
Parody, Kristen	USDEC Consulting Services
Peryam and Kroll Research Corporation	Product Shelf Life Test
Peters, Roeland	U.S. Equipment & Processing Standards
Pizza Hut Hong Kong	Pacific Rim Cheese Program
Pizza Hut PT. Sarimelati Kencana Indonesia	Pacific Rim Cheese Program
Pizza Hut Japan	Pacific Rim Cheese Program
Pizza Hut Jardine Food Services	Pacific Rim Cheese Program
Pizza Hut Korea	Pacific Rim Cheese Program
Pizza Hut Philippines	Pacific Rim Cheese Program
Pizza Hut Singapore	Pacific Rim Cheese Program
PR Consultants	Chinese Program Activities
Quadrant Nutrition	Ingredient Consulting Services
Raymond, Carl	Cookbook Consulting Services
Rempfer Consulting, Inc.	Menu Development

Rogers, Paul	USDEC Consulting Services
Siam Professionals, LLC	Common Food Names Project
Schiver, Don	Strategic Consulting
Schonrock Consulting	USDEC Consulting Services
Science Solutions	USDEC Consulting Services
Shainwright Consulting	Oceana Market Research Services
Shanghai Bangyuehang Catering Management Co. LTD	Pacific Rim Cheese Program
Sheldon, Gerald	USDEC Consulting Services
Snyman, Merle	USDEC Consulting Services
Sorenson, Carla	USDEC Consulting Services
Story Consulting	USDEC Consulting Services
TradeMoves, LLC	Import Export Trade Strategies
Turim Innovation & Ideation, Inc.	Product Ingredient Consulting
Value Engineers Ltd.	Website Research Project
Weber Shandwick China	USDEC Consulting Services
Weppler, Audrey	USDEC Consulting Services
Woosley, Michael	Market Access and Regulatory Affairs
World Perspectives, Inc.	USDEC Consulting Services
Yum! Restaurants Consulting (Shanghai) Company, Ltd.	Pacific Rim Cheese Program
Zenith International	Global Cheese Varietal Demand Study

2014 MARKET AND ECONOMIC RESEARCH, CONSULTING SERVICES

Acuity Consulting, LLC	Monitoring Consulting Services
Albert, Roger	Accounting Services
Almanac Systems, LLC	FarmSmart Consulting
Ann Ocana Consulting, LLC	Communication Consulting Services
Bamsey, Craig	Dairy Industry Forum
Center for Creative Leadership	Training Consulting Services
CFE Solutions, Inc.	Dairy Consumption Consulting Services
Cline Consulting	Fluid Milk Consulting Services
C&R Research Services	Dairy-Based Breakfast Concepts
Concept Green	Sustainability Progress Report
Culinary Sales Support	Dairy Menu Product Development
EnSave, Inc.	Farm Energy Services

Esser, John	Consulting Services
Exponent, Inc.	Consumption Meta-Analysis
Fairlife, LLC	Market Research
Fiorenza, Karen	FleetSmart Consulting
GFK Custom Research	Future of Dairy Research
Hatch, Lisa	Lactose Intolerance Consulting Services
Holmes, Brian	FarmSmart Consulting Services
Illustra Design	Design and Graphic Services
Informa Economics	Anaerobic Digesters Research
Irish-Design	Dairy Sustainability Report
Jenkinson, Thomas	Consulting Services
KED Consulting	Animal Health Consulting Services
Keenan, Judy	Cheese and Sodium Consulting Services
Kemps, LLC	Fluid Milk Consulting Services
Knechtel, Inc.	Fluid Milk Consulting Services
Margherio, Martin	Innovation Consulting
MBL Marketing Consulting, LLC	Fluid Milk Consulting Services
McLeod, Watkinson & Miller	Legal Services
Meyer, James	FarmSmart Consulting
Michaelian, Britt	Marketing Consulting Services
National Milk Producers Federation	Animal Health and Wellbeing Services
New Earth	Dairy Sustainability Consulting Services
Notre Dame University	Executive Leadership Program
NTT Data Inc. (formerly Revere Group)	Information Technology Support
Parodox Nutrition, LLC	Dairy Sustainability Consulting Services
Tom Quaife	Consulting Services
Quantis	Carbon Footprint Calculator Development
RB International	Program Services
Ready Ink Communications	Crisis Planning Support Services
Research Resources	Research & Writing Services
Resilience Services	Life Cycle Assessment Consulting
Resolve, Inc.	Consulting Services
Results Direct	Website Support Services
Shelman, Mary	Consulting Services
Smith, Kristen	Nutrition Guidance Consulting Services
Stoerman, Aaron	Resource Recovery Consulting Services

Strategic Conservation
Strategy One
Technomic, Inc.
Texas AgriLife Research
The Flint Group
The Prasino Group
TNS Custom Research (Kantar)
Vela Environmental
Webb, Teresa

Consulting Services
Dairy Consumers Research Services
Consumer Cheese Consumption Trends
Quantitative Program Evaluation
Dairy Sustainability Consulting Services
Resource Recovery Consulting Services
Dairy Beverage Usage Development
Dairy Sustainability Framework
Innovations Consulting

NATIONAL DAIRY FOODS RESEARCH CENTERS

California Dairy Research Center

The California Dairy Foods Research Center, located at the Dairy Products Technology Center at California Polytechnic State University at San Luis Obispo, supports the dairy industry from farm to table. Working with the California Dairy Research Foundation and the University of California, Davis, the California Dairy Foods Research Center conducts applied and strategic dairy research and development in the areas of product technology and utilization, ingredient technology and utilization, products for health enhancement, food quality, and food safety. For additional information see link: www.dptc.calpoly.edu.

University of California, Davis

Daniela Barile, Ph.D.
392 Old Davis Road
Davis, CA 95616-21234

California Dairy Research Foundation

Gonca Pasin, Ph.D.
501 G Street, Suite 203
Davis, CA 95616

California Polytechnic State University, San Luis Obispo

A. Charles Crabb, Ph.D.
Dairy Products Technology Center
San Luis Obispo, CA 93407

Midwest Dairy Foods Research Center

The Midwest Dairy Foods Research Center conducts research to support the dairy industry, utilizing resources within the University of Minnesota (St. Paul), South Dakota State University (Brookings), and Iowa State University (Ames). Research focuses on improving and controlling flavor development and functionality in cheese; improving the performance of cheese starter cultures through genetics; adding value to milk-based products with probiotics and nutraceuticals; improving shelf life of flavored milks; reducing undesirable taste attributes of milk; improving functionality and controlling flavor attributes of milk fractionation components; and developing methods for effective and profitable uses of whey. For additional information see link: www.midwestdairy.umn.edu.

South Dakota State University

Lloyd Metzger, Ph.D.
Midwest Dairy Foods Research Center,
Box: 2104
Brookings, SD 57007

University of Minnesota, St. Paul

Peggy Lehtola
Midwest Dairy Foods Research Center,
1334 Eckles Avenue
St. Paul, MN 55108

Iowa State University, Ames

Stephanie Clark
Midwest Dairy Foods Research Center,
2312 Food Sciences Building
Ames, IA 50011

Northeast Dairy Foods Research Center

The Northeast Dairy Foods Research Center located at Cornell University, Ithaca, NY, was formed to: conduct fluid milk and dairy ingredient research; conduct dairy microbiology and safety research; provide applications and technical support for the improvements in milk powder quality, casein, and whey protein research; and help establish the next generation of dairy ingredients. For additional information, see link: www.foodscience.cornell.edu.

Cornell University

Kathryn J. Boor, Ph.D.
Dean of Agriculture and Life Sciences
David M. Barbano, Ph.D.
Director Northeast Dairy Center
118 Stocking Hall
Ithaca, NY 14853-7201

Southeast Dairy Foods Research Center

The Southeast Dairy Foods Research Center, with facilities and support at North Carolina State University (Raleigh) and Mississippi State University (Starkville), has been operating since 1988 and actively participates in national research planning and execution on behalf of the dairy industry. The center also hosts a Food Rheology Laboratory, Nutrition Technical Services Laboratory, and a Sensory Applications Laboratory, conducting analytical, qualitative, and affective sensory tests and flavor chemistry analyses tailored to meet specific needs of the food industry. For additional information see link: www.cals.ncsu.edu.

North Carolina State University

Todd Klaenhammer, Ph.D., Director
Southeast Dairy Foods Research Center
100 Schaub Hall, Box 7624
Raleigh, NC 27695-7624

Mississippi State University

Sam Chang, Ph.D.
Food Science, Nutrition and Health Promotion
240 Wise Center Drive
Starkville, MS, 39762

Western Dairy Center

The Western Dairy Center's primary location is Utah State University in Logan, with additional resources available at Oregon State University. The faculty has extensive expertise in dairy processing/production, microbiology, chemistry, and sensory analysis. Research focus includes cheese flavor and functionality; cheese technology; fermented products, including cheese and yogurt; ultra-high-temperature and extended-shelf-life fluid milk beverages; milk protein chemistry, including coagulation, denaturation, and separation; milk fractionation and use of membrane separation in dairy foods; anaerobic digestion of dairy processing waste; whey protein extrusion; application of genetics, genomics, and metabolomics to lactic acid bacteria; whey and milk utilization; and microstructure of dairy. For additional information see link: www.usu.edu/westcent.

Utah State University

Center for Dairy Research
Donald J. McMahon, Ph.D., Director
Western Dairy Center
8700 Old Main Hill, 750 N 1200 E
Logan, Utah 84322-8700

Oregon State University

Lisbeth Goddik
Food Science & Technology
Wiegand Hall
3051 SW Campus Way
Corvallis, OR 97331

Wisconsin Center for Dairy Research

The Wisconsin Center for Dairy Research is located within a licensed, operating dairy plant on the University of Wisconsin-Madison campus. Building on Wisconsin's tradition as the "Dairy State," the center explores functional, flavor, and physical properties of cheese/cheese products and other milk components used as ingredients and as finished products. The center researches cheese making and dairy protein processing/separation procedures, use of dairy ingredients in foods, and technologies for product safety and quality. For additional information see link: www.cdr.wisc.edu.

University of Wisconsin-Madison

Wisconsin Center for Dairy Research
John Lucey, Ph.D., Director
Wisconsin Center for Dairy Research
1605 Linden Drive
Madison, WI 53706-1565

COMPETITIVE RESEARCH PROJECTS ACTIVE IN 2013

Principal Investigator, Institution, Project Title and Status

2013 Dairy Foods

Jayendra K. Amamcharla, Ph.D. (Kansas State University) and Lloyd Metzger, Ph.D. (South Dakota State University): *Understanding the effects of electromagnetic fluid conditioning on physical, chemical, and functional properties of milk and dairy products* [initiated 2013].

Jayendra K. Amamcharla, Ph.D. (Kansas State University), Sanjeev Anand, Ph.D. (South Dakota State University), Lloyd Metzger, Ph.D. (South Dakota State University), and Julie M. Goddard, Ph.D. (University of Massachusetts Amherst): *Use of novel surface modification techniques to reduce biofilms on plate heat exchanger plates* [initiated 2013].

Irma Amelia and David M. Barbano, Ph.D. (Cornell University), MaryAnne Drake, Ph.D. (North Carolina State University), Brandon Nelson, Ph.D. (Daisy Brand, LLC): *A new method for the production of low-fat Cheddar cheese* [concluded 2013].

Sanjeev Anand, Ph.D. (South Dakota State University): *Modifications of CIP Protocol to Prevent and Control Biofilms in Dairy Processing Environment* [ongoing 2013].

Sanjeev Anand, Ph.D. and Lloyd Metzger, Ph.D. (South Dakota State University): *Role of Thermotolerant and Thermophilic Sporeformers and the Biofilms in Cheese Spoilage* [concluded 2013]; *Improve the Microbial Quality of Milk Powders by Controlling Thermally Resistant Spore Formers and Spores* [ongoing 2013].

Stephanie Clark, Ph.D. (Iowa State University): *Feasibility of Integrating Ultrasound into High Temperature Short Time Processing for Extended Shelf Life Milk* [ongoing 2013].

Stephanie Clark, Ph.D. and Buddhi Lamsal, Ph.D. (Iowa State University): *Application and Evaluation of Modified Milk Protein Concentrates in High Protein Nutrition Bars* [ongoing 2013]; *Characterization of extruded and toasted milk protein concentrates* [concluded 2013].

Rachael E. Campbell, Ph.D. and MaryAnne Drake, Ph.D. (North Carolina State University): *The effect of native and nonnative enzymes on the flavor of dried dairy ingredients* [concluded 2013].

Christopher R. Daubert, Ph.D. (North Carolina State University): *Rheological and Tribological Evaluation of Creaminess in Model Dairy Systems* [ongoing 2013].

MaryAnne Drake, Ph.D. (North Carolina State University): *Hydrolysis of Milk Powder Permeate and/or Milk for No Sugar Added Flavored Milk* [ongoing 2013]; *Influence of Spray-drying Parameters and the Lactoperoxidase System to Minimize Flavor Formation in Spray-dried Whey Protein* [ongoing 2013]; *The Influence of Processing Parameters on SMP Quality* [ongoing 2013].

MaryAnne Drake, Ph.D., Mina K. Kim, Ph.D. and Kannapon Lopetcharat, Ph.D. (North Carolina State University): *Influence of packaging information on consumer liking of chocolate milk* [concluded 2013].

Mark R. Etzel, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Charged Ultrafiltration Membranes for Fractionation of Milk Proteins* [ongoing 2013].

Nana Y. Farkye, Ph.D. (University of California-Davis): *Effects of Salt Substitutes and Anti-Microbial Intervention Methods on Functionality and Shelf Life of Low Sodium String Cheese and the Survival of Pathogenic Bacteria* [ongoing 2013].

Nana Y. Farkye, Ph.D. (California Polytechnic State University – San Luis Obispo), Donald McMahon, Ph.D., Jeff Broadbent, Ph.D., and Balasubramanian Ganesan, Ph.D. (Utah State University), MaryAnne Drake, Ph.D. (North Carolina State University), and James L. Steele, Ph.D. (University of Wisconsin-Madison): *Effect of Sodium, Potassium, Magnesium, and Calcium Salt Cations on pH, Proteolysis, Organic Acids, and Microbial Populations During Storage of Full-Fat Cheddar Cheese* [ongoing 2013].

Allen E. Foegeding, Ph.D. (North Carolina State University), and Rafael Jiménez-Flores, Ph.D. (California Polytechnic State University – San Luis Obispo): *Developing Milk-protein-based Structures for New Dairy Products* [ongoing 2013].

Allen E. Foegeding, Ph.D. (North Carolina State University) and Bongkosh Vardhanabhuti, Ph.D. (University of Missouri): *Developing Milk-protein-based Structures for New Dairy Products* [ongoing 2013].

Kathleen Glass, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Enhancing the Microbiological Safety and Quality of Reduced Sodium Cheese with Natural Preservatives or Adjunct Cultures* [ongoing 2013]; *Inhibition of Clostridium Botulinum in Reduced-Sodium Pasteurized Cheese Products* [ongoing 2013].

Julie M. Goddard, Ph.D. (University of Massachusetts-Amherst): *Nonfouling Stainless Steel for Dairy Processing* [ongoing 2013].

Selvarani Govindasamy-Lucey, Ph.D., Mark Johnson, Ph.D., John A. Lucey, Ph.D., and John Jaeggi Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Manufacture of a Low-sodium, Mild-flavored Cheese Suitable for Ingredient Purposes by a Curd Heating Process* [ongoing 2013].

Federico Harte, Ph.D. (University of Tennessee): *Manufacturing of Low Spores, Low-heat Milk Powders for Various Food and Beverage Applications* [ongoing 2013].

Richard Hartle, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Pro-Cream/DLP Blends: Functionality and Applications* [ongoing 2013].

Mark Johnson, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Development and Removal of Biofilms in a Pasteurizer* [ongoing 2013].

Kerry Kaylegian, Ph.D. (Pennsylvania State University): *Reduction of the Saturated Fat Content of Milk Fat Fractions by Dry Crystallization of Anhydrous Milk Fat made from Small and Large Milk Fat Globules Obtained by Microfiltration* [ongoing 2013].

Todd Klaenhammer, Ph.D. (North Carolina State University): *Southeast Dairy Center Application Laboratory Program* [ongoing 2013].

Smaro Kokkinidou, Ph.D. and Devin G. Peterson, Ph.D. (University of Minnesota): *Response surface methodology as optimization strategy for reduction of reactive carbonyl species in foods by means of phenolic chemistry* [concluded 2013].

Theodore P. Labuza, Ph.D. (University of Minnesota): *Develop Rapid and Simple Detection Methods for Dairy Proteins* [ongoing 2013].

John A. Lucey, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Wisconsin Center for Dairy Research Applications Laboratory* [ongoing 2013]; *Impact of processing on Milk Protein Concentrate Functionality* [ongoing 2013].

Donald McMahon, Ph.D. (Utah State University): *Western Dairy Center Technology Innovation Laboratory Program* [ongoing 2013]; *Adapt Terbium Measurement of Spores for use during Milk Processing* [ongoing 2013].

Lloyd Metzger, Ph.D. (South Dakota State University): *Development of Modified Milk Protein Concentrates as an Alternative to Rennet Casein* [ongoing 2013]; *2013 Midwest Dairy Foods Applications Laboratories Program* [ongoing 2013].

Lloyd Metzger, Ph.D. (South Dakota State University) and Donald McMahon, Ph.D. (Utah State University): *Concentration, Storage Stability and Functionality of Highly Concentrated Micellar Casein* [ongoing 2013].

Carmen Moraru, Ph.D. (Cornell University): *Development of Pulsed Light Based Combination Surface Treatments as a Non-thermal Strategy for Microbial Inactivation on Cheese Surface* [ongoing 2013].

Mustafa Ozturk, Ph.D., John A. Lucey, Ph.D., Mark Johnson, Ph.D., John Jaeggi, Ph.D., and Selvarani Govindasamy-Lucey, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *The influence of high hydrostatic pressure on regular, reduced, low and no salt added Cheddar cheese* [concluded 2013].

Hasmukh Patel, Ph.D. and Lloyd Metzger, Ph.D. (South Dakota State University): *To Improve the Quality of Milk Powder by Developing Strategies to Minimize the Increase in Viscosity of Milk Concentrate with High Total Solids Milk* [ongoing 2013].

Tonya Schoenfuss, Ph.D. (University of Minnesota): *Evaluating the Efficiency of the Production of Intrinsically Labeled Milk Protein Products* [ongoing 2013].

Josip Simunovic, Ph.D. (North Carolina State University): *Microwave heating & rapid cooling for shelf stable whole milk* [ongoing 2013].

Karen Smith, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Fractionating Acid Whey into Value-added Ingredients for U.S. in Cultured Dairy Products* [ongoing 2013].

Phillip S. Tong, Ph.D. (California Polytechnic State University – San Luis Obispo): *California Dairy Center Application Laboratory Program* [ongoing 2013]; *Improving SMP/NFDM Processing, Microbiological Quality and Functionality Through Process and Ingredient Technologies That Change Mineral Composition and Activity* [ongoing 2013].

Phillip S. Tong, Ph.D., and Amy Lammert, Ph.D. (California Polytechnic State University – San Luis Obispo), Ammar Olabi and Loulwa Kalache (American University of Beirut): *Characterization of the sensory properties of whey protein concentrates* [concluded 2013].

Michael Tunnick, Ph.D. (USDA-Agricultural Research Service): *Long-term Shelf Life Studies of Whey Protein Concentrates (WPC 34 and WPC 80) Under Adverse Storage Conditions* [ongoing 2013].

Martin Wiedmann, Ph.D., D.V.M. (Cornell University): *Survey of Mesophilic and Thermophilic Sporeformers in Dairy Powders and Raw Milk Across the U.S.* [ongoing 2013]; *A Systems Approach to Reducing Spore Contamination in Dairy Powders* [ongoing 2013].

Martin Wiedmann, Ph.D., D.V.M., and Robin Dando, Ph.D. (Cornell University): *Consumer Sensory Perception of Pasteurized Fluid Milk over Shelf-life* [ongoing 2013].

Qixin Zhong, Ph.D. (University of Tennessee): *Creating Novel Structures to Stabilize Whey Proteins during Heating Nearby Isoelectric Points* [ongoing 2013]; *Dairy Protein-based Antimicrobial Delivery System to Improve the Microbial Safety of Dairy Products* [ongoing 2013]; *Hydrocolloids for Improved Recovery and Utilization of Lactose* [ongoing 2013]; *Physical Removal of Annatto in Cheddar Cheese Whey by Inert Absorbents* [ongoing 2013].

Qixin Zhong, Ph.D. (University of Tennessee), and MaryAnne Drake, Ph.D. (North Carolina State University): *Shelf-stable Whey-protein-based High-protein Beverages* [ongoing 2013].

2013 Nutrition

Sean Adams, Ph.D. (USDA-Agriculture Research Service): *Evaluation of the Role of Dairy Protein and Branched Chain Amino Acids on Optimal Mitochondrial Function through Induction of BCKD Enzyme* [ongoing 2013].

Lacy Alexander Ph.D. (Pennsylvania State University): *Milk and cheese consumption and human microvascular function* [initiated 2013].

Jonathan Allen, Ph.D. (North Carolina State University): *Fortifying vitamins A&D in low-fat foods* [ongoing 2013].

Bradley W. Bolling, Ph.D. (University of Connecticut): *Reduction of Obesity-Associated Intestinal Inflammation by Low-Fat Dairy Yogurt* [ongoing 2013].

Richard Bruno, Ph.D. (Ohio State University): *Vasoprotective Activities of Low-fat Milk in Individuals with Metabolic Syndrome* [ongoing 2013]; *Dairy Fat as a Mediator of Vitamin E Adequacy in Individuals With Metabolic Syndrome* [ongoing 2013].

Wayne Campbell, Ph.D. (Purdue University): *Impact of Fluid Milk of Post-Meal Glycemia and Insulinemia in Overweight/Obese Adults with Normal or Impaired Glucose Tolerance or Type 2 Diabetes* [initiated 2013].

Wayne Campbell, Ph.D., Ulrike Dydak, Ph.D., Travis Conley, Ph.D., Jamie Case, Ph.D., and Author Rosen, M.D. (Purdue University): *Effects of milk protein concentrate on blood pressure, inflammation, muscle composition, and metabolic health during weight loss in overweight/obese adults* [ongoing 2013].

Wayne Campbell, Ph.D., Arthur Rosen, M.D., Jung Eun Kim, Ph.D. (Purdue University), and Douglas Paddon-Jones Ph.D. (University of Texas Medical Branch at Galveston): *Effects of dietary protein patterning on weight loss and resistance training-induced changes in body composition, skeletal muscle, and indices of metabolic syndrome* [initiated 2013].

In-Young Choi, M.D. (University of Kansas): *Dairy Intake and Brain Health in Aging* [concluded 2013].

Sharon Donovan, Ph.D., and Barbara Fiese, Ph.D. (University of Illinois at Urbana - Champaign): *STRONG Kids 2: A Cells-to-Society Approach to Nutrition in Early Childhood* [ongoing 2013].

Mark R. Etzel, Ph.D., John A. Lucey, Ph.D., and Franziska H. Böttger, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *In Vitro Infant Digestion of Whey Protein-Dextran Glycates* [concluded 2013].

Maria Luz Fernandez, Ph.D. (University of Connecticut): *Beneficial effects of low-fat dairy products on lipoprotein metabolism and inflammation in subjects classified with metabolic syndrome* [ongoing 2013].

Army Ferrando, Ph.D. (University of Arkansas): *Effect of Dietary Protein Intake Pattern on Skeletal Muscle in Older Individuals* [ongoing 2013]; *Dairy Macronutrient Effects on the Metabolic Syndrome* [ongoing 2013]; *Effect of dietary protein intake distribution on protein metabolism and skeletal muscle* [initiated 2013].

Michael Fenech, Ph.D. (Commonwealth Scientific and Industrial Research Organisation): *Whey protein isolate as a source of Vitamin B12 and to lower homocysteine and methylmalonic acid in the elderly* [initiated 2013].

Rafael Jiménez-Flores, Ph.D. and Andrea Laubscher, Ph.D. (California Polytechnic State University-San Luis Obispo), Angela Cánovas, Ph.D., Gonzalo Rincón, Ph.D., and Juan F. Medrano, Ph.D. (University of California-Davis): *RNA sequencing to study gene expression and single nucleotide polymorphism variation associated with citrate content in cow milk* [concluded 2013].

Bruce German, Ph.D. (University of California-Davis): *Characterization and Function of Milk Glycopeptides* [concluded 2013].

Mathew Hayes, Ph.D. (University of Pennsylvania): *Effects of Dairy Macronutrients on Glucogo-like-Peptide-1 Receptor Mediated Suppression of Food Intake and Blood Glucose Regulation* [ongoing 2013].

Kevin Heffernan, Ph.D. (Syracuse University): *Efficacy of Whey Protein to Improve Cerebrovascular and Cognitive Function in Older Adults* [ongoing 2013].

Rachel Johnson, Ph.D., RD (University of Vermont): *Evaluating the Acceptance of Reformulated Flavored Milk in Schools* [ongoing 2013].

Samual Klein, M.D. (Washington University School of Medicine): *Diet and exercise intervention in Type 2 Diabetes* [initiated 2013].

Jana Kraft, Ph.D. and Lawrence Kien, M.D., Ph.D. (University of Vermont): *Effects of milk fat on Insulin Sensitivity, Postprandial Lipid Metabolism, Circulating Inflammatory Markers in mildly obese female subjects* [initiated 2013].

Ronald M. Krauss, Ph.D. (Children's Hospital Oakland Research Institute): *Effect of a modified lower carbohydrate, high fat DASH diet plan on plasma lipids, lipoprotein particle size and blood pressure in healthy adults* [initiated 2013]; *Effects of replacing sugar sweetened beverages with milk on metabolic risk factors in overweight and obese adolescents* [initiated 2013].

Benoit Lamarche, Ph.D. (Laval University): *Investigation of the impact of cheese consumption on HDL function* [initiated 2013].

Kevin C. Maki, Ph.D. (Biofortis-Provident Clinical Research): *The effects of dairy beverages on insulin sensitivity and B-cell function in men and women at risk for diabetes* [concluded 2013].

Maria Marco, Ph.D. (University of California-Davis): *Does Milk Matter? The Importance of Milk for Probiotics Lactobacillus casei Performance in the Gut* [concluded 2013].

Kim Fleischer Michaelsen, M.D., Ph.D. (University of Copenhagen): *Whey permeate in the treatment of moderate acute malnutrition* [initiated 2013]; *Modified content of F-75 to control diarrhea in treatment of children with severe acute malnutrition* [initiated 2013].

Benjamin F. Miller, Ph.D. (Colorado State University): *Activation of Nrf2 by conjugated linoleic acid to decrease oxidative stress and inflammation and thereby increase muscle building effects of milk proteins* [initiated 2013].

Lynn L. Moore, D.Sc. (Boston University School of Medicine): *Protein Effects on Metabolic Outcomes in Older Men* [ongoing 2013].

Lynn L. Moore, D.Sc., Martha R. Singer, M.Ph., RD and Loring Bradlee, MS (Boston University School of Medicine): *Beverage intake in early childhood and change in body fat from preschool to adolescence* [ongoing 2013].

Sabita Soedamah-Muthu, Ph.D. (Wageningen University): *Meta-analysis on Effects of Cheese Consumption on Blood Lipids and Lipoproteins* [ongoing 2013].

Sharon Nickols-Richardson, Ph.D. (Pennsylvania State University): *Does a Dairy-rich Diet Modify Indicators of Inflammatory and Oxidative Stress in Adults with Excess Adiposity* [ongoing 2013].

Douglas Paddon-Jones, Ph.D. (University of Texas Medical Branch at Galveston): *Whey Protein, Aging and Physical Inactivity* [initiated 2013].

Peggy Papatheakis, Ph.D. (California Polytechnic State University – San Luis Obispo): *Randomized controlled trial of the impact of treating moderately malnourished women in pregnancy with sub studies* [initiated 2013].

Stefan M. Pasiakos, Ph.D. (U.S. Army Research Institute of Environmental Medicine): *Comparative Effects of Milk- and Soy-based Diets on Musculoskeletal Health and Glucose Homeostasis during Prolonged Energy Restriction in Rats* [concluded 2013].

Robert F. Roberts, Ph.D. (Pennsylvania State University): *Influence of Delivery System on the Efficacy of a Probiotic Intervention* [ongoing 2013].

Michael J. Saunders, Ph.D. (James Madison University): *Tolerance to Intensified Cycle Training and Subsequent Adaptations: Influence of Chocolate Milk Dairy Protein Supplementation* [ongoing 2013].

Mary Beth Spitznagel, Ph.D., and John Gunstad, Ph.D. (Kent State University): *Is Milk the Drink that Helps You Think? Dairy, Acute Glycemic Control, and Cognitive Function* [ongoing 2013].

Hirofumi Tanaka, Ph.D. (University of Texas): *Hypotensive Effects of Conventional Dairy Products: Role of Arterial Stiffness* [ongoing 2013]; *Effects of Fluid Milk in Attenuating Hyperglycemia and Hypertriglyceridemia for Meal* [initiated 2013].

Laura L. Tosi, M.D. (Children's Research Institute): *A Systems Biology Analysis of the Impact of Dairy and Calcium Intake on Type 2 Diabetes Associated Phenotypes* [ongoing 2013].

Marta Van Loan, Ph.D. (USDA-Agricultural Research Service): *Milk Versus Calcium Citrate and Vitamin D Supplements for Bone Health in Postmenopausal Women* [concluded 2013].

Jeff Volek, Ph.D. (University of Connecticut): *Effect of Incremental Increases in Dietary Carbohydrate on Saturated Fat Levels in Blood Borne Risk Markers for Cardiovascular Disease* [ongoing 2013].

Jeff Volek, Ph.D., RD, Brittanie Volk, MA, RD, and Ana L. Gómez, Ph.D. (University of Connecticut): *Whey Protein Supplementation During Resistance Training Augments Lean Body Mass* [concluded 2013].

Elena Volpi, M.D., Ph.D. (University of Texas Medical Branch at Galveston): *Whey protein and exercise to accelerate recovery of muscle mass and function after acute hospitalization in previously independent older adults* [initiated 2013].

Marie Walsh, Ph.D., Balasubramanian Ganesan, Ph.D., and Silvana Martini, Ph.D. (Utah State University): *Use of Sonification to study impact on physiochemical properties of concentrated milk, and impact on fouling and milk powder quality* [ongoing 2013].

Rosemary L Walzem, Ph.D. (Texas A&M University): *Effects of dairy ingredients on gut microbiome and gut health* [ongoing 2013].

Robert Ward, Ph.D. (Utah State University): *Effects of Consuming Bioactive Yogurt on Endotoxemia and Markers of Metabolic Syndrome* [ongoing 2013].

Connie Weaver, Ph.D. (Purdue University): *Does High Calcium Exacerbate Atherosclerosis* [concluded 2013].

Brian Wrotniak, Ph.D. (D'Youville College): *Dairy intake in Pediatric Obesity Prevention and Treatment Interventions: Secondary analyses of existing data from two randomized trials* [initiated 2013].

Qixin Zhong, Ph.D., and Wan Wang, Ph.D. (University of Tennessee): *Improved Thermal Stability of Whey Protein–Maltodextrin Conjugates at pH 5.0 by d-Glucose, Sucrose, d-Cellobiose, and Lactose* [ongoing 2013].

Angela Zivkovic, Ph.D., and Jennifer Smilowitz, Ph.D. (University of California-Davis): *Effects of Dairy Fat on Postprandial Inflammation* [concluded 2013].

2013 Sustainability

Beate Crossley, DVM, Ph.D. (University of California-Davis): *Rapid High-throughput Milk Assay Adaptable to Foot and Mouth Disease and Other Pathogens* [concluded 2013].

Andrew Henderson, Ph.D. (University of Texas Health Science Center at Houston): *Modification of the U.S. Milk Extended Life Cycle Assessment for watershed-based impacts: water use and eutrophication* [initiated 2013]; *Environmental performance of dairy as part of a sustainable diet* [initiated 2013].

Olivier Jolliet, Ph.D. (University of Michigan): *U.S. Fluid Milk Comprehensive Life Cycle Study* [concluded 2013]; *Nutritional benefits and environmental performance of dairy products* [initiated 2013].

Olivier Jolliet, Ph.D. (University of Michigan) and Greg Thoma, Ph.D. (University of Arkansas): *A biophysical approach to allocation of life cycle environmental burdens for fluid milk supply chain analysis* [concluded 2013].

Changsheng Li, Ph.D. (University of New Hampshire): *Applications of Manure–DNDC at site and watershed scales for U.S. dairy environmental services* [initiated 2013].

Marty Matlock, Ph.D., Greg Thoma, Ph.D., Mansoor Leh, Ph.D., Eric Cummings Ph.D., Jackson Cothren, Ph.D., and John P. Wilson, Ph.D. (University of Arkansas): *Geospatial Analysis of potential water use, water stress, and eutrophication impacts from U.S. dairy production* [concluded 2013].

Marina Moses, Ph.D. (National Academy of the Sciences): *Considerations for the Future of Animal Science Research* [initiated 2013].

Greg Thoma, Ph.D. (University of Arkansas): *Life Cycle Assessment of Cheese and Whey Production in the U.S.A.* [concluded 2013].

COMPETITIVE RESEARCH PROJECTS ACTIVE IN 2014

Principal Investigator, Institution, Project Title and Status

2014 Dairy Foods

Jayendra K. Amamcharla, Ph.D. (Kansas State University): *Use of Nano-scale aqueous ozone to remove biofilms from selected dairy product contact surfaces* [initiated 2014].

Jayendra K. Amamcharla, Ph.D. (Kansas State University), and Lloyd Metzger, Ph.D. (South Dakota State University): *Understanding the effects of electromagnetic fluid conditioning on physical, chemical and functional properties of milk and dairy products* [ongoing 2014].

Jayendra K. Amamcharla, Ph.D. (Kansas State University), Sanjeev Anand, Ph.D. (South Dakota State University), Lloyd Metzger, Ph.D. (South Dakota State University), and Julie M. Goddard, Ph.D. (University of Massachusetts Amherst): *Use of novel surface modification techniques to reduce biofilms on plate heat exchanger plates* [ongoing 2014].

Sanjeev Anand, Ph.D., and Lloyd Metzger, Ph.D. (South Dakota State University): *Improve the Microbial Quality of Milk Powders by Controlling Thermally Resistant Spore Formers and Spores* [ongoing 2014].

Bradley Boling, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Reduction of obesity-associated intestinal inflammation by low-fat dairy yogurt* [initiated 2014].

Stephanie Clark, Ph.D. (Iowa State University): *Feasibility of Integrating Ultrasound into High Temperature Short Time Processing for Extended Shelf Life Milk* [ongoing 2014].

Stephanie Clark, Ph.D., and Buddhi Lamsal, Ph.D. (Iowa State University): *Application and Evaluation of Modified Milk Protein Concentrates in High Protein Nutrition Bars* [concluded 2014].

Dennis D'Amico, Ph.D. (University of Connecticut) *Utilization of GRAS compounds as antimicrobial dip and coating treatments for controlling Listeria monocytogenes on high moisture cheese* [initiated 2014].

Christopher R. Daubert, Ph.D. (North Carolina State University): *Rheological and Tribological Evaluation of Creaminess in Model Dairy Systems* [concluded 2014].

MaryAnne Drake, Ph.D. (North Carolina State University): *Hydrolysis of Milk Powder Permeate and/or Milk for no Sugar Added Flavored Milk* [ongoing 2014]; *Influence of Spray-drying Parameters and the Lactoperoxidase System to Minimize Flavor Formation in Spray-dried Whey Protein* [ongoing 2014]; *The Influence of Processing Parameters on SMP Quality* [ongoing 2014], *Sensory analysis and preference mapping of Gouda Cheese* [ongoing 2014].

MaryAnne Drake, Ph.D. (North Carolina State University) and Lloyd Metzger, Ph.D. (South Dakota State University): *Exploring consumer perception of permeate-based sodium reduction with different permeate sources* [initiated 2014].

Susan E. Duncan, Ph.D. (Virginia Polytechnic Institute and State University): *Milk packaging options for light protection of milk flavor from processing through retail purchase* [initiated 2014].

Mark R. Etzel, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Charged Ultrafiltration Membranes for Fractionation of Milk Proteins* [ongoing 2014].

Nana Y. Farkye, Ph.D. (University of California-Davis): *Effects of Salt Substitutes and Anti-Microbial Intervention Methods on Functionality and Shelf Life of Low Sodium String Cheese and the Survival of Pathogenic Bacteria* [ongoing 2014].

Nana Y. Farkye, Ph.D. (California Polytechnic State University – San Luis Obispo), Donald McMahon, Ph.D., Jeff Broadbent, Ph.D., and Balasubramanian Ganesan, Ph.D. (Utah State University), MaryAnne Drake, Ph.D. (North Carolina State University), and James L. Steele, Ph.D. (University of Wisconsin-Madison): *Effect of Sodium, Potassium, Magnesium, and Calcium Salt Cations on pH, Proteolysis, organic acids, and microbial populations during storage of full-fat Cheddar cheese* [ongoing 2014].

Allen E. Foegeding, Ph.D. (North Carolina State University), Rafael Jiménez-Flores, Ph.D. (California Polytechnic State University – San Luis Obispo), and Bongkosh Vardhanabhuti, Ph.D. (University of Missouri): *Developing Milk-protein-based Structures for New Dairy Products* [ongoing 2014].

Allen E. Foegeding, Ph.D. (North Carolina State University): *Functional Whey Protein Ingredients Based on Designed Aggregates* [ongoing 2014].

Foundation for the National Institutes of Health: *Outcome Measures for Sarcopenia* [ongoing 2014]; *The Performance of Novel Cardiac Biomarkers in the General U.S. Population* [initiated 2014].

Kathleen Glass, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Enhancing the Microbiological Safety and Quality of Reduced Sodium Cheese with Natural Preservatives or Adjunct Cultures* [ongoing 2014]; *Inhibition of Clostridium Botulinum in Reduced-Sodium Pasteurized Cheese Products* [initiated 2014].

Julie M. Goddard, Ph.D. (University of Massachusetts-Amherst): *Nonfouling Stainless Steel for Dairy Processing* [ongoing 2014].

Lisbeth Goddik, Ph.D. (Oregon State University): *Impact of Milk Hauling and Receiving on Microbial Content in Raw Milk* [initiated 2014].

Selvarani Govindasamy-Lucey, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Increasing the shelf-life of export cheeses by prolonged low temperature storage* [ongoing 2014].

Federico Harte, Ph.D. (University of Tennessee): *Manufacturing of Low Spores, Low-heat Milk Powders for Various Food and Beverage Applications* [concluded 2014].

Richard Hartel, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Pro-Cream/DLP Blends: Functionality and Applications* [concluded 2014].

Mark Johnson, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Development and Removal of Biofilms in a Pasteurizer* [ongoing 2014].

Todd Klaenhammer, Ph.D. (North Carolina State University): *Southeast Dairy Center Application Laboratory Program* [ongoing 2014].

Theodore P. Labuza, Ph.D. (University of Minnesota): *Develop Rapid and Simple Detection Methods for Dairy Proteins* [concluded 2014].

John A. Lucey, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Wisconsin Center for Dairy Research Applications Laboratory* [ongoing 2014].

Donald McMahon, Ph.D. (Utah State University): *Western Dairy Center Technology Innovation Laboratory Program* [ongoing 2014]; *Adapt Terbium Measurement of Spores for use during Milk Processing* [concluded 2014].

Lloyd Metzger, Ph.D. (South Dakota State University): *Development of Modified Milk Protein Concentrates as an Alternative to Rennet Casein* [ongoing 2014]; *Midwest Dairy Foods Applications Laboratories Program* [ongoing 2014].

Lloyd Metzger, Ph.D. (South Dakota State University), and Donald McMahon, Ph.D. (Utah State University): *Concentration, Storage Stability and Functionality of Highly Concentrated Micellar Casein* [concluded 2014].

Carmen Moraru, Ph.D. (Cornell University): *Development of Pulsed Light Based Combination Surface Treatments as a Non-thermal Strategy for Microbial Inactivation on Cheese Surface* [concluded 2014].

NIZO Food Research B.V. (Netherlands): *Reduction of spore count in milk powder production* [completed 2014].

Hasmukh Patel, Ph.D., Lloyd Metzger, Ph.D. (South Dakota State University), and Cordelia Selomulya, Ph.D. (Monash University (Australia)): *To Improve the Quality of Milk Powder by Developing Strategies to Minimize the Increase in Viscosity of Milk Concentrate with High Total Solids Milk* [ongoing 2014].

Hasmukh Patel, Ph.D., and Lloyd Metzger, Ph.D. (South Dakota State University) *Scale-up and implementation of strategies to improve quality and process efficiency during manufacturing of dairy ingredients* [initiated 2014]; *Single droplet drying technology for optimization of dairy ingredients for best quality and functionality* [initiated 2014].

Tonya Schoenfuss, Ph.D. (University of Minnesota): *Evaluating the Efficiency of the Production of Intrinsically Labeled Milk Protein Products* [ongoing 2014]; *Evaluation of cheese with desirable fat and sodium attributes for school lunch snack choices* [initiated 2014].

Karen Smith, Ph.D. (University of Wisconsin-Madison/Center for Dairy Research): *Fractionating Acid Whey Into Value-added Ingredients for U.S. in Cultured Dairy Products* [ongoing 2014].

Phillip S. Tong, Ph.D. (California Polytechnic State University – San Luis Obispo): *California Dairy Center Application Laboratory Program* [ongoing 2014]; *Improving SMP/NFDM Processing, Microbiological Quality and Functionality Through Process and Ingredient Technologies That Change Mineral Composition and Activity* [ongoing 2014].

Michael Tunnick, Ph.D. (USDA-Agricultural Research Service): *Long-term Shelf Life Studies of Whey Protein Concentrates (WPC 34 and WPC 80) Under Adverse Storage Conditions* [concluded 2014].

Martin Wiedmann, Ph.D., D.V.M. (Cornell University): *Survey of Mesophilic and Thermophilic Sporeformers in Dairy Powders and Raw Milk Across the U.S.* [ongoing 2014]; *A Systems Approach to Reducing Spore Contamination in Dairy Powders* [concluded 2014].

Martin Wiedmann, Ph.D., D.V.M., and Robin Dando, Ph.D. (Cornell University): *Consumer Sensory Perception of Pasteurized Fluid Milk over Shelf-life* [ongoing 2014]; *Control of post-pasteurization contamination of Pasteurized Fluid Milk through improved sanitation.* [initiated 2014].

Qixin Zhong, Ph.D. (University of Tennessee): *Dairy Protein-based Antimicrobial Delivery System to Improve the Microbial Safety of Dairy Products* [concluded 2014]; *Hydrocolloids for Improved Recovery and Utilization of Lactose* [ongoing 2014].

Qixin Zhong, Ph.D. (University of Tennessee) and MaryAnne Drake, Ph.D. (North Carolina State University): *Shelf-stable Whey-protein-based High-protein Beverages* [ongoing 2014].

2014 Nutrition

Sean Adams, Ph.D. (USDA-Agriculture Research Service): *Evaluation of the health benefits of a high-quality diet in persons at-risk for development of metabolic disease: rapidity and weight-independent effects* [initiated 2014].

Lacy Alexander, Ph.D. (Pennsylvania State University): *Milk and cheese consumption and human microvascular function* [ongoing 2014].

Dominik Alexander, Ph.D., MSPH (EpidStat Institute): *Meta-analysis of Dairy Consumption and Body Composition* [initiated 2014].

Dominick D. Alexander, Ph.D., MSPH; Paige E. Miller, Ph.D., MPH, RD; Vanessa Perez, Ph.D. (Exponent Inc.): *Effects of whey protein and resistance exercise on body composition: a meta-analysis of randomized controlled trials* [completed 2014].

David M. Barbano, Ph.D. (Cornell University) and MaryAnne Drake, Ph.D. (North Carolina State University) *The role of protein, protein ratio and fat content on consumer acceptance* [initiated 2014].

Bradley W. Bolling, Ph.D. (University of Connecticut): *Reduction of Obesity-Associated Intestinal Inflammation by Low-Fat Dairy Yogurt* [ongoing 2014].

Richard Bruno, Ph.D. (Ohio State University): *Vasoprotective Activities of Low-fat Milk in Individuals with Metabolic Syndrome* [concluded 2014]; *Dairy Fat as a Mediator of Vitamin E Adequacy in Individuals With Metabolic Syndrome* [ongoing 2014].

Wayne Campbell, Ph.D. (Purdue University): *Impact of Fluid Milk of Post-Meal Glycemia and Insulinemia in Overweight/Obese Adults with Normal or Impaired Glucose Tolerance or Type 2 Diabetes* [ongoing 2014]; *Dietary protein intake and source and body composition in U.S. adults aged 50 years and older* [initiated 2014].

Wayne Campbell, Ph.D., Ulrike Dydak, Ph.D., Travis Conley, Ph.D., Jamie Case, Ph.D., and Author Rosen, M.D. (Purdue University): *Effects of milk protein concentrate on blood pressure, inflammation, muscle composition, and metabolic health during weight loss in overweight/obese adults* [ongoing 2014].

Wayne Campbell, Ph.D., Arthur Rosen, M.D., Jung Eun Kim, Ph.D. (Purdue University), and Douglas Paddon-Jones Ph.D. (University of Texas Medical Branch at Galveston): *Effects of dietary protein patterning on weight loss and resistance training-induced changes in body composition, skeletal muscle, and indices of metabolic syndrome* [ongoing 2014].

Sharon Donovan, Ph.D., and Barbara Fiese, Ph.D. (University of Illinois at Urbana - Champaign): *STRONG Kids 2: A Cells-to-Society Approach to Nutrition in Early Childhood* [ongoing 2014].

Maria Luz Fernandez, Ph.D. (University of Connecticut): *Beneficial effects of low-fat dairy products on lipoprotein metabolism and inflammation in subjects classified with metabolic syndrome* [concluded 2014].

Arny Ferrando, Ph.D. (University of Arkansas): *Effect of Dietary Protein Intake Pattern on Skeletal Muscle in Older Individuals* [ongoing 2014]; *Effect of dietary protein intake distribution on protein metabolism and skeletal muscle* [ongoing 2014].

Michael Fenech, Ph.D. (Commonwealth Scientific and Industrial Research Organisation (Australia)): *Whey protein isolate as a source of Vitamin B12 and to lower homocysteine and methylmalonic acid in the elderly* [ongoing 2014].

Rafael Jiménez-Flores, Ph.D. (California Polytechnic State University – San Luis Obispo): *Developing Milk Protein- Based Structures for New Dairy Products* [ongoing 2014]; *Measuring Kinetics of Milk* [ongoing 2014].

Mathew Hayes, Ph.D. (University of Pennsylvania): *Effects of Dairy Macronutrients on Glucogo-like-Peptide-1 Receptor Mediated Suppression of Food Intake and Blood Glucose Regulation* [ongoing 2014]; *Milk protein concentrate improves the metabolic effects of GLP-1-based pharmacotherapy in diabetic rat models* [initiated 2014]

Kevin Heffernan, Ph.D. (Syracuse University): *Efficacy of Whey Protein to Improve Cerebrovascular and Cognitive Function in Older Adults* [ongoing 2014].

Rachel Johnson, Ph.D., RD (University of Vermont): *Evaluating the Acceptance of Reformulated Flavored Milk in Schools* [ongoing 2014].

Samual Klein, M.D. (Washington University School of Medicine): *Diet and exercise intervention in Type 2 Diabetes* [continued 2014].

Jana Kraft, Ph.D., and Lawrence Kien, M.D., Ph.D. (University of Vermont): *Effects of milk fat on Insulin Sensitivity, Postprandial Lipid metabolism, Circulating Inflammatory Markers in mildly obese female subjects* [ongoing 2014]; *Researching the effects of consuming a diet comprising of milk fat on metabolic health markers* [ongoing 2014].

Mario Krantz, Ph.D. (Fred Hutchinson Cancer Research Center - University of Washington): *The impact of Low-fat and Full-fat Dairy Consumption on Glucose Homeostasis* [initiated 2014].

Ronald M. Krauss, Ph.D. (Children's Hospital Oakland Research Institute): *Effect of a modified lower carbohydrate, high fat DASH diet plan on plasma lipids, lipoprotein particle size and blood pressure in healthy adults* [ongoing 2014]; *Effects of replacing sugar sweetened beverages with milk on metabolic risk factors in overweight and obese adolescents* [ongoing 2014].

Benoit Lamarche, Ph.D. (Laval University (Canada)): *Investigation of the impact of cheese consumption on HDL function* [ongoing 2014].

Luc J.C. van Loon, Ph.D. (Maastricht University (Netherlands)): *Casein in milk as a functional ingredient for the prevention of sarcopenia* [ongoing 2014].

Kevin C. Maki, Ph.D. (Midwest Center for Metabolic and Cardiovascular Research): *A randomized, controlled crossover trial of acute cognitive, appetite, glucose and insulin responses to five milk or juice beverages or water in men and women* [initiated 2014].

Maria Marco, Ph.D. (University of California-Davis): *Does Milk Matter? The Importance of Milk for Probiotics Lactobacillus casei Performance in the Gut* [concluded 2014].

Kim Fleischer Michaelsen, M.D., Ph.D. (University of Copenhagen (Denmark)): *Whey permeate in the treatment of moderate acute malnutrition* [ongoing 2014]; *Modified content of F-75 to control diarrhea in treatment of children with severe acute malnutrition* [ongoing 2014].

Benjamin F. Miller, Ph.D. (Colorado State University): *Activation of Nrf2 by conjugated linoleic acid to decrease oxidative stress and inflammation and thereby increase muscle building effects of milk proteins* [ongoing 2014].

Lynn L. Moore, D.Sc. (Boston University School of Medicine): *Protein Effects on Metabolic Outcomes in Older Men* [ongoing 2014]; *Yogurt, Blood Pressure and Cardiovascular Risk in Three Prospective Cohorts* [ongoing 2014].

Lynn L. Moore, D.Sc., Martha R. Singer, M.Ph., RD, and Loring Bradlee, MS (Boston University School of Medicine): *Beverage intake in early childhood and change in body fat from preschool to adolescence* [ongoing 2014].

Sabita Soedamah-Muthu, Ph.D. (Wageningen University (Netherlands)): *Meta-analysis on Effects of Cheese Consumption on Blood Lipids and Lipoproteins* [concluded 2014].

Sharon Nickols-Richardson, Ph.D. (Pennsylvania State University): *Does a Dairy-rich Diet Modify Indicators of Inflammatory and Oxidative Stress in Adults with Excess Adiposity* [concluded 2014].

Douglas Paddon-Jones, Ph.D. (University of Texas Medical Branch at Galveston): *Whey Protein, Aging and Physical Inactivity* [ongoing 2014].

Peggy Papathakis, Ph.D. (California Polytechnic State University – San Luis Obispo): *Randomized controlled trial of the impact of treating moderately malnourished women in pregnancy with sub studies* [ongoing 2014].

Robert F. Roberts, Ph.D. (Pennsylvania State University): *Influence of Delivery System on the Efficacy of a Probiotic Intervention* [concluded 2014].

Michael J. Saunders, Ph.D. (James Madison University): *Tolerance to Intensified Cycle Training and Subsequent Adaptations: Influence of Chocolate Milk Dairy Protein Supplementation* [ongoing 2014].

Ego Seemen, M.D. (University of Melbourne (Australia) *Study into improved health for elderly through increased dairy consumption* [ongoing 2014].

Mary Beth Spitznagel, Ph.D., and John Gunstad, Ph.D. (Kent State University): *Is Milk the Drink that Helps You Think? Dairy, Acute Glycemic Control, and Cognitive Function* [ongoing 2014].

Hans H. Stein, Ph.D. (University of Illinois, Urbana-Champaign): *Amino acid digestibility and DIAAS values in dairy proteins and other sources of protein used in human consumption* [initiated 2014].

Hirofumi Tanaka, Ph.D. (University of Texas): *Effects of Fluid Milk in Attenuating Hyperglycemia and Hypertriglyceridemia for Meal* [ongoing 2014].

Hirofumi Tanaka, Ph.D., Mohammed Alkatan Ph.D., Melissa Mouton, MS, RDN, LD (University of Texas), Daniel R. Machin Ph.D. (University of Utah), and Wonil Park, Ph.D. (University of North Carolina Chapel Hill): *Hypotensive effects of solitary addition of conventional nonfat dairy products to the routine diet: a randomized controlled trial* [concluded 2014].

Laura L. Tosi, M.D. (Children's Research Institute): *A Systems Biology Analysis of the Impact of Dairy and Calcium Intake on Type 2 Diabetes Associated Phenotypes* [ongoing 2014].

Jeff Volek, Ph.D. (University of Connecticut): *Effect of Incremental Increases in Dietary Carbohydrate on Saturated Fat Levels in Blood Borne Risk Markers for Cardiovascular Disease* [concluded 2014].

Elena Volpi, M.D., Ph.D. (University of Texas Medical Branch at Galveston): *Whey protein and exercise to accelerate recovery of muscle mass and function after acute hospitalization in previously independent older adults* [ongoing 2014].

Marie Walsh, Ph.D., Balasubramanian Ganesan, Ph.D., and Silvana Martini, Ph.D. (Utah State University): *Use of Sonification to study impact on physiochemical properties of concentrated milk, and impact on fouling and milk powder quality* [ongoing 2014].

Rosemary L Walzem, Ph.D. (Texas A&M University): *Effects of dairy ingredients on gut microbiome and gut health* [concluded 2014].

Robert Ward, Ph.D. (Utah State University): *Effects of Consuming Bioactive Yogurt on Endotoxemia and Markers of Metabolic Syndrome* [ongoing 2014].

Brian Wrotniak, Ph.D. (D'Youville College): *Dairy intake in Pediatric Obesity Prevention and Treatment Interventions: Secondary analyses of existing data from two randomized trials* [ongoing 2014].

Qixin Zhong, Ph.D., and Wan Wang, Ph.D. (University of Tennessee): *Improved Thermal Stability of Whey Protein–Maltodextrin Conjugates at pH 5.0 by d-Glucose, Sucrose, d-Cellobiose, and Lactose* [ongoing 2014].

Angela Zivkovic, Ph.D., and Jennifer Smilowitz, Ph.D. (University of California-Davis): *Effects of Dairy Fat on Postprandial Inflammation* [concluded 2014].

2014 Sustainability

Battelle Energy Alliance, LLC: *Dairy Industry Operations, Energy and Environmental Analysis* [concluded 2014].

Manuel Margni Ph.D. (Polytechnique Montreal), Alice Heth, Ph.D., and Steven Murphy (Cornell University): *Critical Review of Yogurt Life Cycle Assessment* [ongoing 2014].

Andrew Henderson, Ph.D. (University of Texas Health Science Center at Houston): *Environmental performance of dairy as part of a sustainable diet* [ongoing 2014]; *National Nutrient Optimization & Dairy (NaNO-Dairy)* [initiated 2014].

Brian Holmes, Ph.D. (University of Wisconsin-Madison): *Farm Smart research* [concluded 2014].

Olivier Jolliet, Ph.D. (University of Michigan): *Nutritional benefits and environmental performance of dairy products* [concluded 2014].

Ermias Kebreab, Ph.D. (University of California and California Dairy Research Foundation) *Developing better prediction equations for enteric methane emissions by U.S. dairy cattle* [initiated 2014].

Informa Economics (United Kingdom): *Markets for recovered nitrogen, recovered phosphorous and nutrient enriched fiber produced by dairy digesters* [concluded 2014].

Changsheng Li, Ph.D. (University of New Hampshire): *Applications of Manure–DNDC at site and watershed scales for U.S. dairy environmental services* [concluded 2014].

Marina Moses, Ph.D. (National Academy of the Sciences): *Considerations for the Future of Animal Science Research* [ongoing 2014].

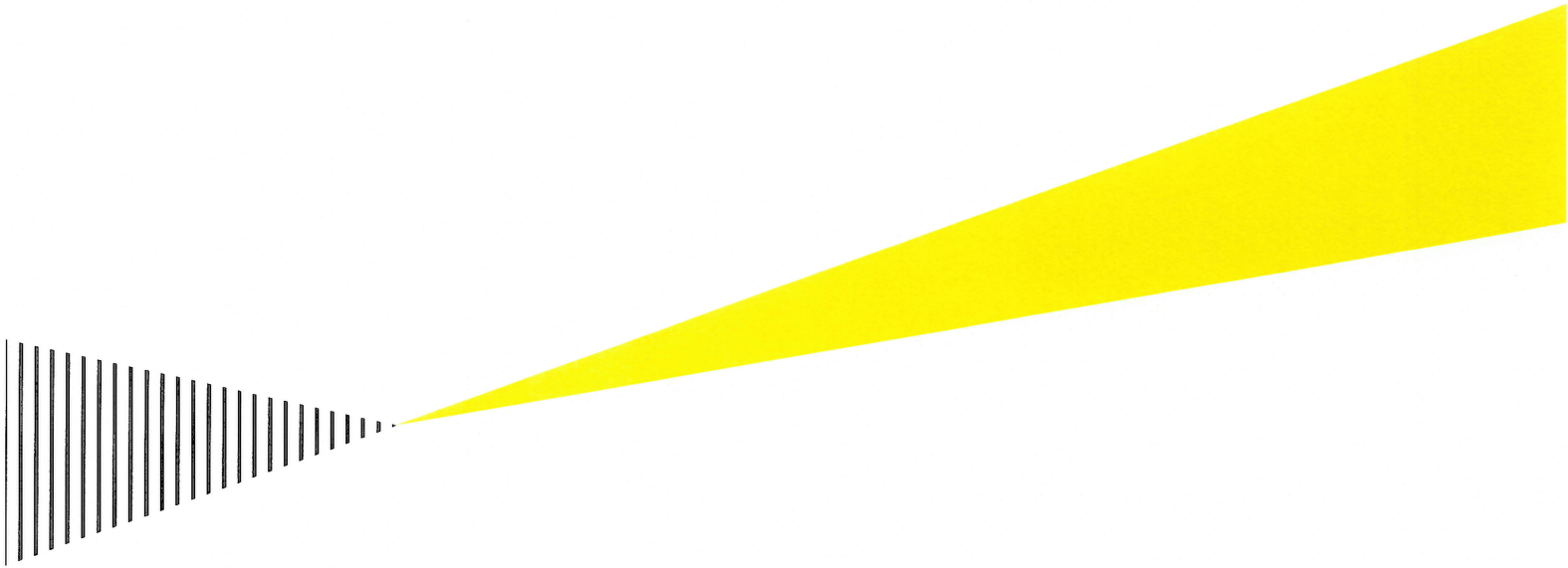
National Research Council: *Nutrient Requirements of Dairy Cattle* [ongoing 2014].

Greg Thoma, Ph.D. (University of Arkansas): *Life cycle environmental assessment of yogurt production and consumption in the USA* [initiated 2014].

FINANCIAL STATEMENTS

National Dairy Promotion and Research Board
Years Ended December 31, 2013 and 2012
With Reports of Independent Auditors

Ernst & Young LLP



Building a better
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National Dairy Promotion and Research Board

Financial Statements

Years Ended December 31, 2013 and 2012

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Report of Independent Auditors

The Board of Directors
National Dairy Promotion & Research Board

We have audited the accompanying financial statements of National Dairy Promotion & Research Board, which comprise the balance sheets as of December 31, 2013 and 2012, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in conformity with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free of material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of National Dairy Promotion & Research Board as of December 31, 2013 and 2012, and the changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we also have issued our report dated April 23, 2014, on our consideration of National Dairy Promotion & Research Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering National Dairy Promotion & Research Board's internal control over financial reporting and compliance.

Ernst + Young LLP

April 23, 2014



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Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

The Management and Board of Directors
National Dairy Promotion & Research Board

We have audited, in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of National Dairy Promotion & Research Board, which comprise the balance sheets as of December 31, 2013 and 2012, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements, and have issued our report thereon dated April 23, 2014.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered National Dairy Promotion & Research Board's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of National Dairy Promotion & Research Board's internal control. Accordingly, we do not express an opinion on the effectiveness of National Dairy Promotion & Research Board's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether National Dairy Promotion & Research Board's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Ernst & Young LLP

April 23, 2014

National Dairy Promotion and Research Board

Balance Sheets

	December 31	
	2013	2012
Assets		
Cash and cash equivalents	\$ 37,448,760	\$ 36,212,518
Domestic assessments receivable, net of allowance for doubtful accounts of \$65,000 in 2013 and 2012	9,124,495	9,598,258
Import assessments receivable	283,738	352,603
Accrued interest receivable		96
Fixed assets, net of accumulated depreciation of \$246,509 and \$234,283 in 2013 and 2012, respectively	21,746	33,972
Total assets	\$ 46,878,739	\$ 46,197,447
Liabilities and net assets		
Liabilities:		
Due to related-party – Dairy Management Inc.	\$ 18,066,709	\$ 14,062,534
Accounts payable	425,190	533,093
Accrued expenses and other liabilities	363,435	612,455
Total liabilities	18,855,334	15,208,082
Unrestricted net assets:		
Designated	17,375,188	15,080,902
Undesignated	10,648,217	15,908,463
Total unrestricted net assets	28,023,405	30,989,365
Total liabilities and net assets	\$ 46,878,739	\$ 46,197,447

See accompanying notes.

National Dairy Promotion and Research Board

Statements of Activities

	Year Ended December 31	
	2013	2012
Revenues		
Domestic assessments	\$ 99,837,720	\$ 99,738,654
Import assessments	2,647,343	2,788,953
Interest income	6,430	7,057
NAEMS interest	–	83,664
Total revenues	102,491,493	102,618,328
Expenses		
Programs:		
Domestic and export marketing	99,965,316	87,050,723
United States Department of Agriculture	606,459	740,231
Total programs	100,571,775	87,790,954
General and administrative:		
DMI general and administrative	4,119,737	3,778,068
General and administrative	765,941	739,248
Total general and administrative	4,885,678	4,517,316
Total expenses	105,457,453	92,308,270
(Decrease) increase in net assets	(2,965,960)	10,310,058
Net assets at beginning of year	30,989,365	20,679,307
Net assets at end of year	\$ 28,023,405	\$ 30,989,365

See accompanying notes.

National Dairy Promotion and Research Board

Statements of Cash Flows

	Year Ended December 31	
	2013	2012
Operating activities		
Change in net assets	\$ (2,965,960)	\$ 10,310,058
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation	12,226	12,639
Changes in assets and liabilities:		
Assessments receivable	542,628	1,600,455
Accrued interest receivable	96	(33)
Interest receivable from NAEMS investments	–	21,336
Due to related-party – Dairy Management Inc.	4,004,175	2,205,316
Accounts payable	(107,903)	512,212
Accrued expenses and other liabilities	(249,020)	(439,972)
Net cash provided by operating activities	1,236,242	14,222,011
Investing activities		
Net increase in cash and cash equivalents	1,236,242	14,211,975
Cash and cash equivalents at beginning of year	36,212,518	22,000,543
Cash and cash equivalents at end of year	\$ 37,448,760	\$ 36,212,518

See accompanying notes.

National Dairy Promotion and Research Board

Notes to Financial Statements

December 31, 2013 and 2012

1. Organization

The National Dairy Promotion and Research Board (NDB) was established on May 1, 1984, pursuant to The Dairy and Tobacco Adjustment Act of 1983 (Public Law 98-180), as part of a comprehensive strategy to reduce milk surplus supplies in the United States (U.S.) and increase human consumption of fluid milk and other dairy products. The purpose of NDB is to establish a coordinated program of promotion and research designed to strengthen the dairy industry's position in the marketplace and to maintain and expand domestic and international markets' usage of U.S.-produced fluid milk and other dairy products.

The United States Department of Agriculture (USDA) approved a joint venture between NDB and the United Dairy Industry Association (UDIA) to form Dairy Management Inc. (DMI) effective January 1, 1995. The purpose of DMI, a related organization, is to promote greater coordination, efficiency, and effectiveness and avoid incompatibility and duplication in the marketing programs and projects undertaken by NDB and UDIA, which jointly plan, develop, and implement their various marketing programs and activities through DMI, subject to the approval of the USDA.

NDB funds DMI on a cost-reimbursement basis. Core costs, which include staff salaries and benefits of DMI employees, travel, Board of Directors, and office operating expenses, are primarily funded by NDB, with UDIA funding one-half of Board of Directors and CEO office costs. Marketing program costs, which include expenses associated with implementing the marketing programs of NDB and UDIA, are funded by NDB and UDIA.

2. Summary of Significant Accounting Policies

Basis of Presentation

The financial statements are prepared on the accrual basis of accounting in conformity with generally accepted accounting principles (GAAP) in the United States. These principles require management to make estimates and judgments that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported amounts of revenues and expenses in the reporting period. Actual results could differ from those estimates.

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

2. Summary of Significant Accounting Policies (continued)

Financial Instruments

The carrying values of cash and cash equivalents, assessments receivable, accrued interest receivable, investments, amounts due to related party, accounts payable, and accrued expenses and other liabilities are reasonable estimates of fair value due to the short-term nature of these financial instruments.

Cash and Cash Equivalents

Cash equivalents include all liquid investments with a maturity of three months or less at the date of acquisition.

Fair Value Measurements

Accounting Standards Codification (ASC) 820, *Fair Value Measurement*, establishes a three-level valuation hierarchy for disclosure of fair value measurements for financial instruments measured at fair value. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

Level 1 – Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 – Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instruments.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

NDB has classified \$2,399,781 and \$7,599,799 of investments in U.S. federal agency securities, which are included in cash and cash equivalents as of December 31, 2013 and 2012, respectively, as Level 1.

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

2. Summary of Significant Accounting Policies (continued)

Assessments

Domestic assessment revenue is generated by a mandatory assessment of \$0.15 per hundredweight on all milk produced and marketed in the United States. Milk producers can direct up to \$0.10 per hundredweight to USDA-qualified state and regional generic dairy promotion organizations. For the years ended December 31, 2013 and 2012, the net NDB assessment was approximately \$5.03 per hundredweight of milk marketed. Assessment revenue is recognized in the month in which milk is marketed. In addition, effective August 2011, the mandatory assessment was extended to dairy importers at \$0.075 per hundredweight. Importers can direct \$0.025 per hundredweight to USDA-qualified generic dairy promotion organizations.

The Dairy Promotion and Research Order allows organic dairy producers, as defined, to be exempt from paying assessments. The amount of exempted assessments in 2013 and 2012 was approximately \$1,010,000 and \$964,000, respectively.

Fixed Assets

Fixed assets consist of computer software and are recorded at cost. Depreciation and amortization are provided in amounts sufficient to charge the costs of depreciable assets to operations over estimated service lives of five years using the straight-line method.

Income Taxes

The Internal Revenue Service has ruled that NDB is an entity engaging in an activity under the oversight of the USDA and, accordingly, is not subject to federal taxation.

3. Cash and Cash Equivalents

Cash and cash equivalents consist of the following as of December 31:

	<u>2013</u>	<u>2012</u>
Cash	\$ 35,048,979	\$ 28,612,719
U.S. federal agency securities	2,399,781	7,599,799
	<u>\$ 37,448,760</u>	<u>\$ 36,212,518</u>

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

4. Assessments Receivable

Assessments receivable are recorded at the estimated net amounts to be received based on the amount of milk marketed and the average payment per hundredweight. In accordance with Public Law 98-180, NDB forwards unpaid assessments to the USDA for collection and other legal proceedings. As of December 31, 2013 and 2012, \$945,000 and \$709,000, respectively, of cumulative unpaid assessments were at the USDA pending further action. Such amounts are not included in assessments receivable as of December 31, 2013 and 2012, and will not be recorded as revenue until such amounts are ultimately received. Civil penalties exist for any persons who do not pay the assessment and/or file required milk marketed assessment reports with NDB.

5. Related-Party Transactions

NDB has funded DMI program and core costs as follows:

	<u>2013</u>	<u>2012</u>
Program costs	\$ 76,821,717	\$ 65,395,272
Core costs	27,263,336	25,433,519
Total funding to DMI	<u>\$ 104,085,053</u>	<u>\$ 90,828,791</u>

Dairy Research Institute (DRI) was incorporated in 2010 for the purpose of engaging in dairy scientific research and sustainability advancement. Of the program funding that NDB reimbursed DMI, \$12,907,649 and \$12,556,255 for 2013 and 2012, respectively, was reimbursed to DMI for DRI's operations.

The U.S. Dairy Export Council (USDEC) was incorporated effective January 1, 1996. The purpose of USDEC is to improve the marketing conditions for the U.S. dairy industry with respect to the export of U.S. dairy products by promoting the acceptability, consumption, and purchase of U.S. dairy products in international markets. Of the program funding that NDB reimbursed DMI, \$11,274,176 and \$11,161,077 for 2013 and 2012, respectively, was reimbursed to DMI for USDEC's operations.

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

6. Transactions With Other Industry Organizations

NDB reimburses the USDA for the cost of administrative oversight and compliance audit activities. Expenses incurred under this arrangement amounted to \$606,459 and \$740,231 for 2013 and 2012, respectively.

7. Net Assets

During 2013 and 2012, NDB's Board of Directors designated a portion of net assets for cash reserves. Total designations of net assets are as follows:

	<u>2013</u>	<u>2012</u>
Designated net assets:		
Cash reserves	\$ 1,800,000	\$ 1,800,000
Subsequent year program activity	15,575,188	13,280,902
Total designated net assets	<u>17,375,188</u>	<u>15,080,902</u>
Undesignated net assets	10,648,219	15,908,463
Total net assets	<u>\$ 28,023,407</u>	<u>\$ 30,989,365</u>

8. Line-of-Credit Guarantee

NDB guarantees DMI's \$10,000,000 revolving bank line of credit, which will expire on June 30, 2015. Borrowings made, if any, under the line of credit accrue interest, payable monthly, at the prevailing prime interest rate. There were no borrowings on the line of credit as of December 31, 2013.

9. Subsequent Events

NDB evaluated events occurring between January 1, 2014 and April 23, 2014, which is the date when the financial statements were available to be issued. NDB did not have any subsequent events to recognize or disclose.

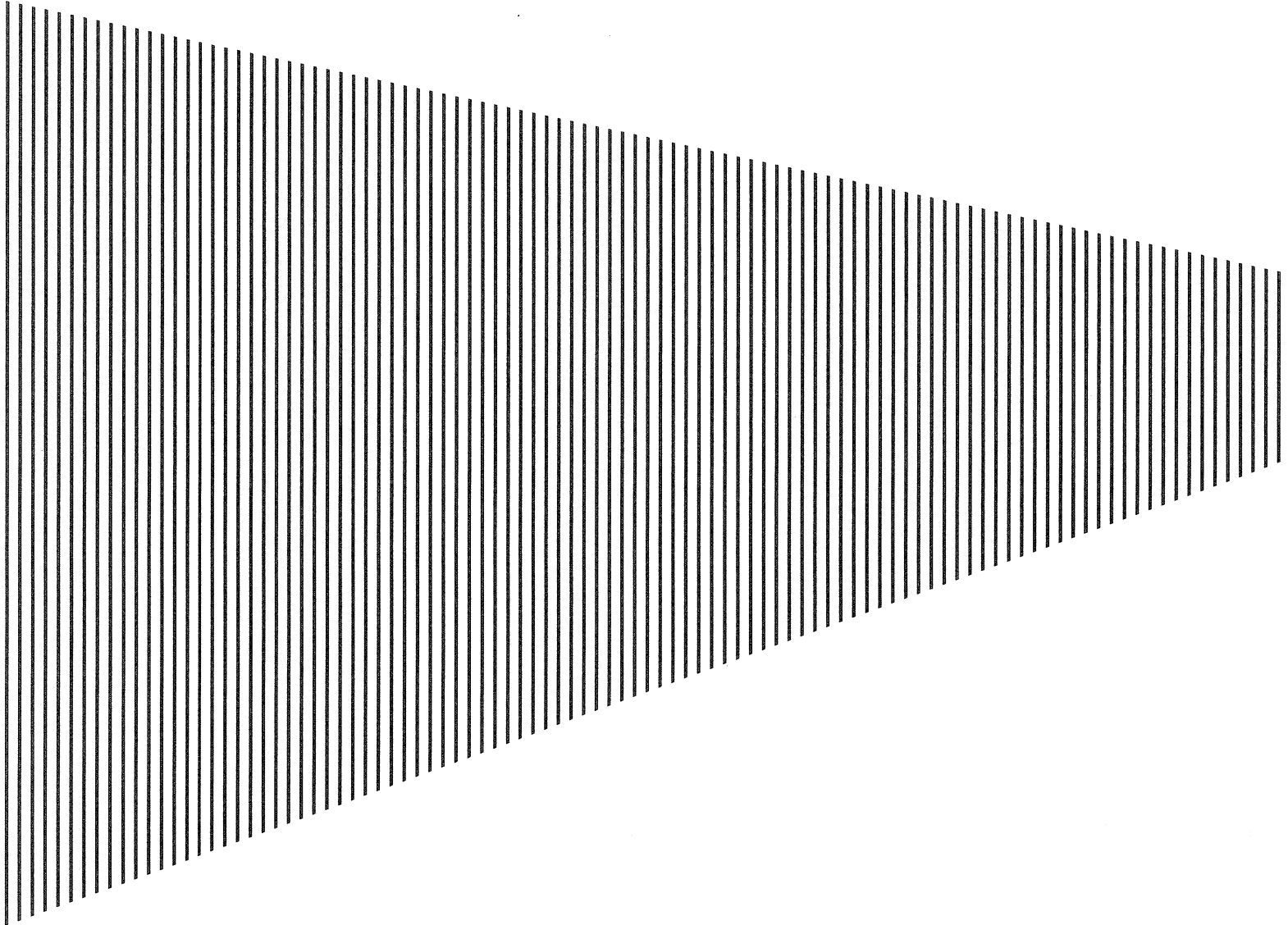
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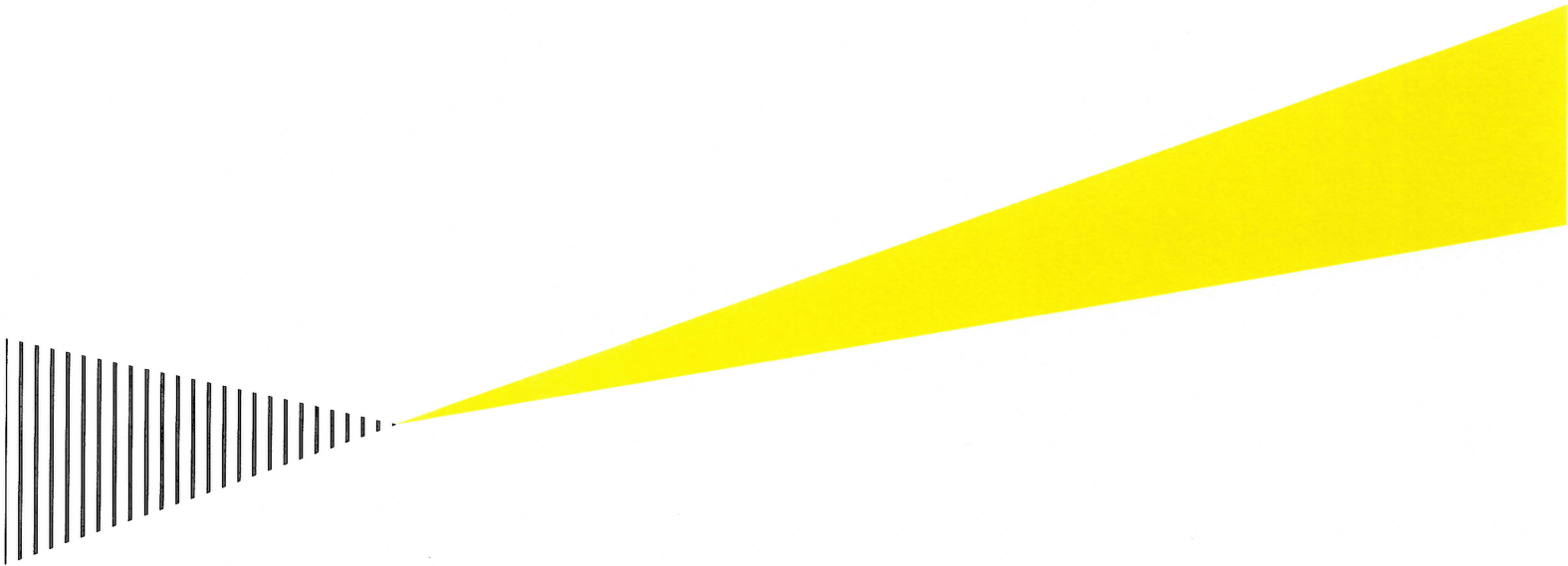
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FINANCIAL STATEMENTS

National Dairy Promotion and Research Board
Years Ended December 31, 2014 and 2013
With Reports of Independent Auditors

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Financial Statements

Years Ended December 31, 2014 and 2013

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Report of Independent Auditors

The Board of Directors
National Dairy Promotion and Research Board

We have audited the accompanying financial statements of National Dairy Promotion and Research Board, which comprise the balance sheets as of December 31, 2014 and 2013, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in conformity with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free of material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Nation Dairy Promotion and Research Board as of December 31, 2014 and 2013, and the changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we also have issued our report dated April 24, 2015, on our consideration of National Dairy Promotion and Research Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering National Dairy Promotion and Research Board's internal control over financial reporting and compliance.

Ernst & Young LLP

April 24, 2015



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Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

The Management and Board of Directors
National Dairy Promotion and Research Board

We have audited, in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of National Dairy Promotion and Research Board, which comprise the balance sheets as of December 31, 2014 and 2013, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements, and have issued our report thereon dated April 24, 2015.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered National Dairy Promotion and Research Board's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of National Dairy Promotion and Research Board's internal control. Accordingly, we do not express an opinion on the effectiveness of National Dairy Promotion and Research Board's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether National Dairy Promotion and Research Board's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Ernst + Young LLP

April 24, 2015

National Dairy Promotion and Research Board

Balance Sheets

	December 31	
	2014	2013
Assets		
Cash and cash equivalents	\$ 23,460,403	\$ 37,448,760
Domestic assessments receivable, net of allowance for doubtful accounts of \$40,222 and \$65,000 in 2014 and 2013	9,869,712	9,124,495
Select funding receivable	698,009	–
Import assessments receivable	375,219	283,738
Fixed assets, net of accumulated depreciation of \$256,838 and \$246,509 in 2014 and 2013, respectively	11,417	21,746
Total assets	\$ 34,414,760	\$ 46,878,739
Liabilities and net assets		
Liabilities:		
Due to related party – Dairy Management Inc.	\$ 3,710,205	\$ 18,066,709
Accounts payable	246,957	425,190
Accrued expenses and other liabilities	451,297	363,435
Total liabilities	4,408,459	18,855,334
Unrestricted net assets:		
Designated	21,939,300	17,375,188
Undesignated	8,067,001	10,648,217
Total unrestricted net assets	30,006,301	28,023,405
Total liabilities and net assets	\$ 34,414,760	\$ 46,878,739

See accompanying notes.

National Dairy Promotion and Research Board

Statements of Activities

	Year Ended December 31	
	2014	2013
Revenues		
Domestic assessments	\$ 102,830,811	\$ 99,837,720
Import assessments	2,630,412	2,647,343
Select funding	4,283,938	-
Interest income	927	6,430
Total revenues	109,746,088	102,491,493
Expenses		
Programs:		
Domestic and export marketing	102,736,600	99,965,316
United States Department of Agriculture	585,487	606,459
Total programs	103,322,087	100,571,775
General and administrative:		
DMI general and administrative	3,667,088	4,119,737
General and administrative	774,017	765,941
Total general and administrative	4,441,105	4,885,678
Total expenses	107,763,192	105,457,453
Increase (decrease) in net assets	1,982,896	(2,965,960)
Net assets at beginning of year	28,023,405	30,989,365
Net assets at end of year	\$ 30,006,301	\$ 28,023,405

See accompanying notes.

National Dairy Promotion and Research Board

Statements of Cash Flows

	Year Ended December 31	
	2014	2013
Operating activities		
Change in net assets	\$ 1,982,896	\$ (2,965,960)
Adjustments to reconcile change in net assets to net cash (used in) provided by operating activities:		
Depreciation	10,329	12,226
Changes in assets and liabilities:		
Assessments receivable	(836,698)	542,628
Select funding receivable	(698,009)	-
Accrued interest receivable	-	96
Due to related party – Dairy Management Inc.	(14,356,504)	4,004,175
Accounts payable	(178,233)	(107,903)
Accrued expenses and other liabilities	87,862	(249,020)
Net cash (used in) provided by operating activities	<u>(13,988,357)</u>	<u>1,236,242</u>
Net (decrease) increase in cash and cash equivalents	(13,988,357)	1,236,242
Cash and cash equivalents at beginning of year	37,448,760	36,212,518
Cash and cash equivalents at end of year	<u>\$ 23,460,403</u>	<u>\$ 37,448,760</u>

See accompanying notes.

National Dairy Promotion and Research Board

Notes to Financial Statements

December 31, 2014 and 2013

1. Organization

The National Dairy Promotion and Research Board (NDB) was established on May 1, 1984, pursuant to The Dairy and Tobacco Adjustment Act of 1983 (Public Law 98-180), as part of a comprehensive strategy to reduce milk surplus supplies in the United States (U.S.) and increase human consumption of fluid milk and other dairy products. The purpose of NDB is to establish a coordinated program of promotion and research designed to strengthen the dairy industry's position in the marketplace and to maintain and expand domestic and international markets' usage of U.S.-produced fluid milk and other dairy products.

The United States Department of Agriculture (USDA) approved a joint venture between NDB and the United Dairy Industry Association (UDIA) to form Dairy Management Inc. (DMI) effective January 1, 1995. The purpose of DMI, a related organization, is to promote greater coordination, efficiency, and effectiveness and avoid incompatibility and duplication in the marketing programs and projects undertaken by NDB and UDIA, which jointly plan, develop, and implement their various marketing programs and activities through DMI, subject to the approval of the USDA.

NDB funds DMI on a cost-reimbursement basis. Core costs, which include staff salaries and benefits of DMI employees, travel, Board of Directors, and office operating expenses, are primarily funded by NDB, with UDIA funding one-half of the office costs of the Board of Directors and CEO. Marketing program costs, which include expenses associated with implementing the marketing programs of NDB and UDIA, are funded by NDB and UDIA.

2. Summary of Significant Accounting Policies

Basis of Presentation

The financial statements are prepared on the accrual basis of accounting in conformity with generally accepted accounting principles (GAAP) in the United States. These principles require management to make estimates and judgments that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported amounts of revenues and expenses in the reporting period. Actual results could differ from those estimates.

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

2. Summary of Significant Accounting Policies (continued)

Financial Instruments

The carrying values of cash and cash equivalents, assessments receivable, accrued interest receivable, investments, amounts due to related party, accounts payable, and accrued expenses and other liabilities are reasonable estimates of fair value due to the short-term nature of these financial instruments.

Cash and Cash Equivalents

Cash equivalents include all liquid investments with a maturity of three months or less at the date of acquisition.

Fair Value Measurements

Accounting Standards Codification (ASC) 820, *Fair Value Measurement*, establishes a three-level valuation hierarchy for disclosure of fair value measurements for financial instruments measured at fair value. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are defined as follows:

Level 1 – Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.

Level 2 – Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instruments.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

NDB has classified \$1,499,819 and \$2,399,781 of investments in U.S. federal agency securities, which are included in cash and cash equivalents as of December 31, 2014 and 2013, respectively, as Level 1.

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

2. Summary of Significant Accounting Policies (continued)

Assessments

Domestic assessment revenue is generated by a mandatory assessment of \$0.15 per hundredweight on all milk produced and marketed in the United States. Milk producers can direct up to \$0.10 per hundredweight to USDA-qualified state and regional generic dairy promotion organizations. For the years ended December 31, 2014 and 2013, the net NDB assessment was approximately \$5.15 and \$5.03, respectively, per hundredweight of milk marketed. Assessment revenue is recognized in the month in which milk is marketed. In addition, effective August 2011, the mandatory assessment was extended to dairy importers at \$0.075 per hundredweight. Importers can direct \$0.025 per hundredweight to USDA-qualified generic dairy promotion organizations.

The Dairy Promotion and Research Order allows organic dairy producers, as defined, to be exempt from paying assessments. The amount of exempted assessments in 2014 and 2013 was approximately \$1,030,000 and \$1,010,000, respectively.

Fixed Assets

Fixed assets consist of computer software and are recorded at cost. Depreciation and amortization are provided in amounts sufficient to charge the costs of depreciable assets to operations over estimated service lives of five years using the straight-line method.

Income Taxes

The Internal Revenue Service has ruled that NDB is an entity engaging in an activity under the oversight of the USDA and, accordingly, is not subject to federal taxation.

3. Cash and Cash Equivalents

Cash and cash equivalents consist of the following as of December 31:

	<u>2014</u>	<u>2013</u>
Cash	\$ 21,960,584	\$ 35,048,979
U.S. federal agency securities	1,499,819	2,399,781
	<u>\$ 23,460,403</u>	<u>\$ 37,448,760</u>

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

4. Assessments Receivable

Assessments receivable are recorded at the estimated net amounts to be received based on the amount of milk marketed and the average payment per hundredweight. In accordance with Public Law 98-180, NDB forwards unpaid assessments to the USDA for collection and other legal proceedings. As of December 31, 2014 and 2013, \$979,805 and \$945,000, respectively, of cumulative unpaid assessments were at the USDA pending further action. Such amounts are not included in assessments receivable as of December 31, 2014 and 2013, and will not be recorded as revenue until such amounts are ultimately received. Civil penalties exist for any persons who do not pay the assessment and/or file required milk marketed assessment reports with NDB.

5. Related-Party Transactions

NDB has funded DMI program and core costs as follows:

	<u>2014</u>	<u>2013</u>
Program costs	\$ 69,461,581	\$ 76,821,717
Core costs	36,942,108	27,263,336
Total funding to DMI	<u>\$ 106,403,689</u>	<u>\$ 104,085,053</u>

Dairy Research Institute (DRI) was incorporated in 2010 for the purpose of engaging in dairy scientific research and sustainability advancement. Of the program funding that NDB reimbursed DMI, \$1,586,534 and \$12,907,649 for 2014 and 2013, respectively, was reimbursed to DMI for DRI's operations.

The U.S. Dairy Export Council (USDEC) was incorporated effective January 1, 1996. The purpose of USDEC is to improve the marketing conditions for the U.S. dairy industry with respect to the export of U.S. dairy products by promoting the acceptability, consumption, and purchase of U.S. dairy products in international markets. Of the program funding that NDB reimbursed DMI, \$11,291,159 and \$11,274,176 for 2014 and 2013, respectively, was reimbursed to DMI for USDEC's operations.

National Dairy Promotion and Research Board

Notes to Financial Statements (continued)

6. Transactions With Other Industry Organizations

NDB reimburses the USDA for the cost of administrative oversight and compliance audit activities. Expenses incurred under this arrangement amounted to \$585,487 and \$606,459 for 2014 and 2013, respectively.

7. Net Assets

During 2014 and 2013, NDB's Board of Directors designated a portion of net assets for cash reserves. Total designations of net assets are as follows:

	<u>2014</u>	<u>2013</u>
Designated net assets:		
Cash reserves	\$ 1,800,000	\$ 1,800,000
Subsequent year program activity	20,139,300	15,575,188
Total designated net assets	<u>21,939,300</u>	<u>17,375,188</u>
Undesignated net assets	8,067,001	10,648,217
Total net assets	<u>\$ 30,006,301</u>	<u>\$ 28,023,405</u>

8. Line-of-Credit Guarantee

NDB guarantees DMI's \$10,000,000 revolving bank line of credit, which will expire on June 30, 2015. Borrowings made, if any, under the line of credit accrue interest, payable monthly, at the prevailing prime interest rate. There were no borrowings on the line of credit as of December 31, 2014.

9. Subsequent Events

NDB evaluated events occurring between January 1, 2015 and April 24, 2015, which is the date when the financial statements were available to be issued. NDB did not have any subsequent events to recognize or disclose.

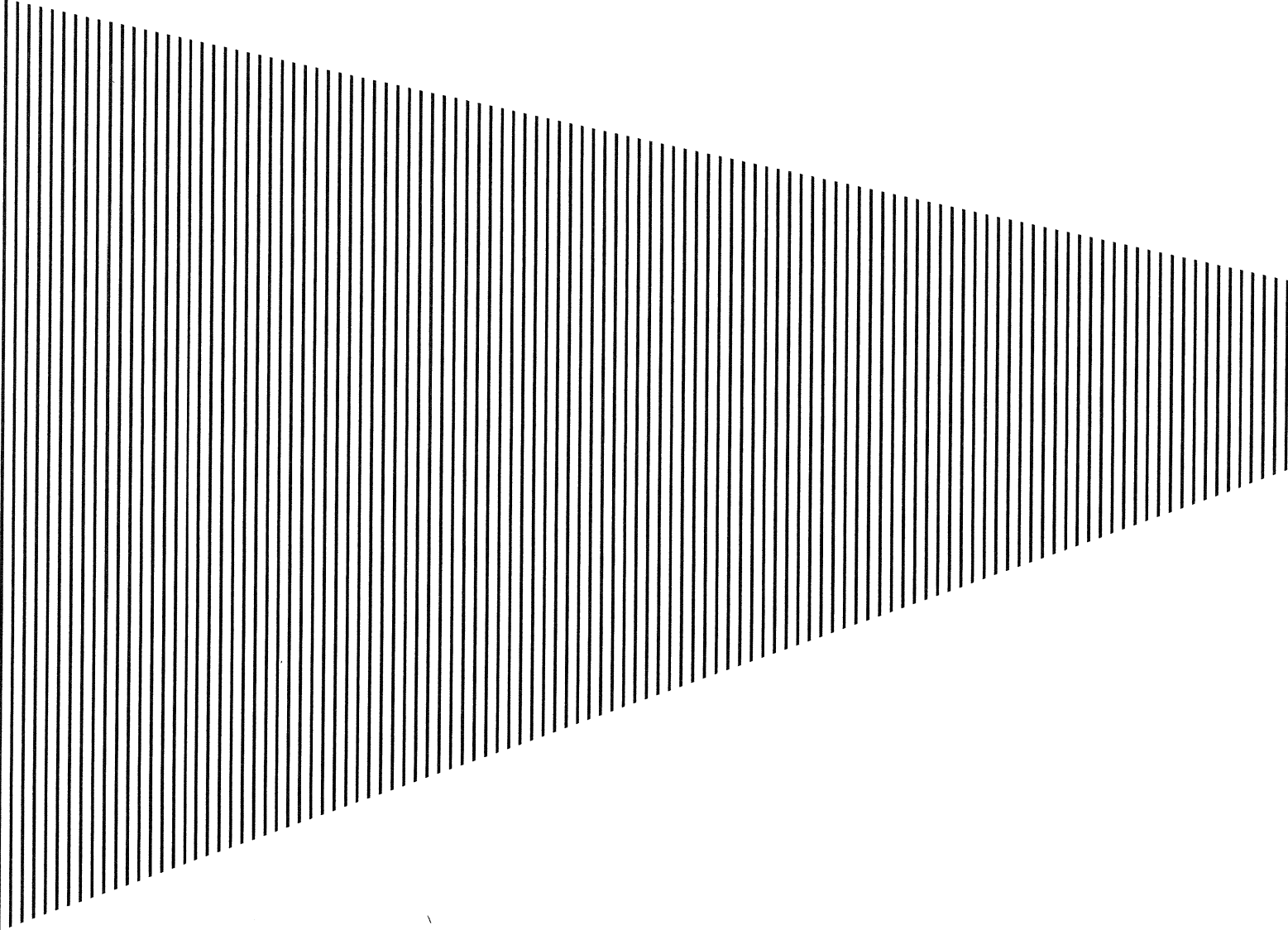
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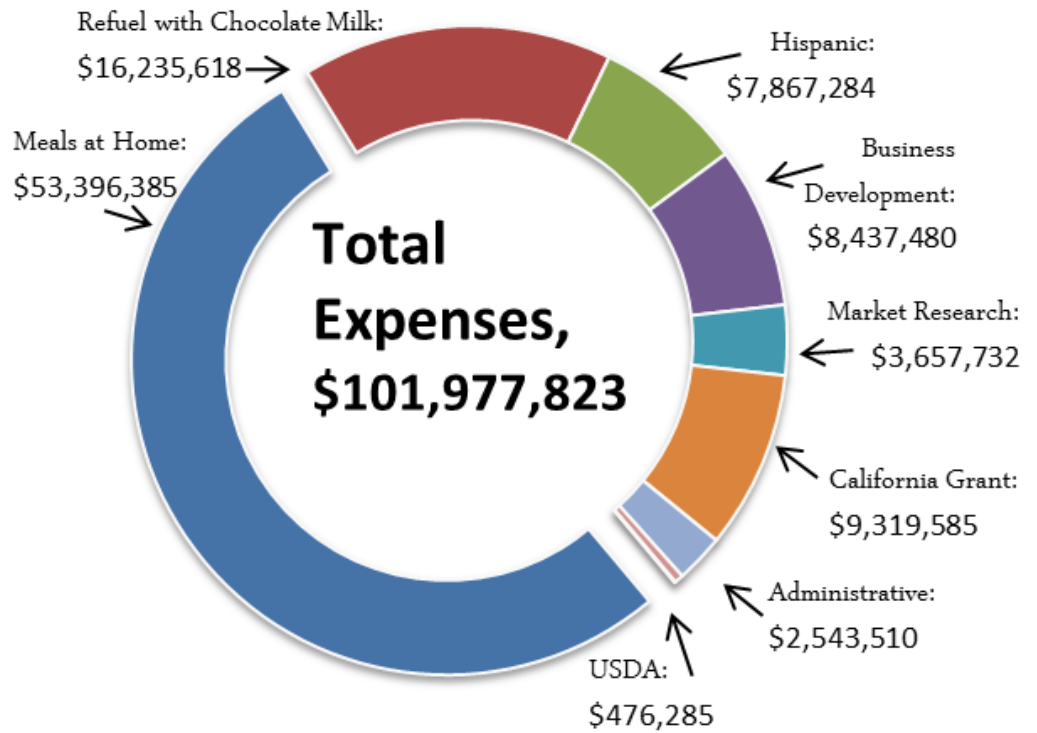
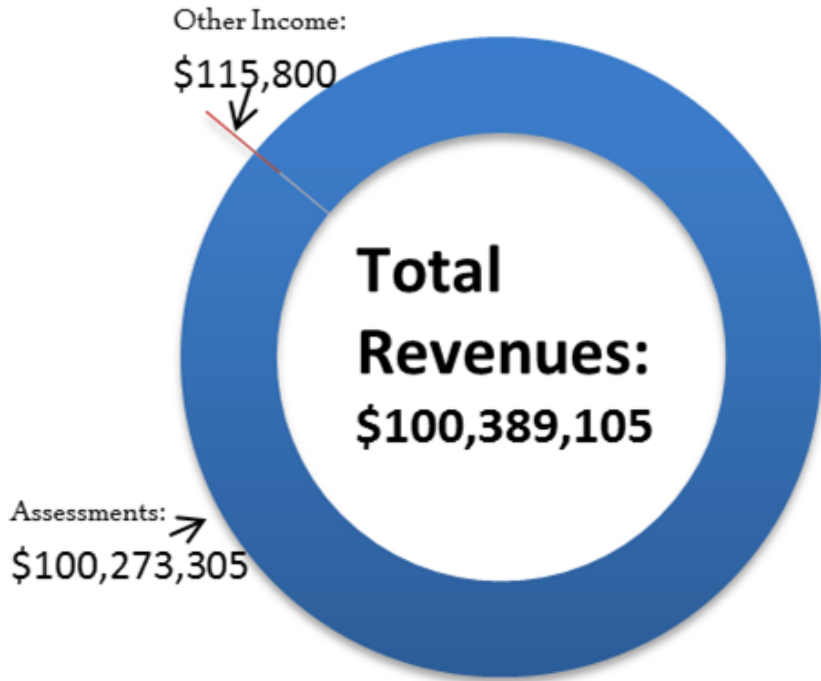
Chapter 6

National Fluid Milk Processor Promotion Program 2013 and 2014 Financial Information

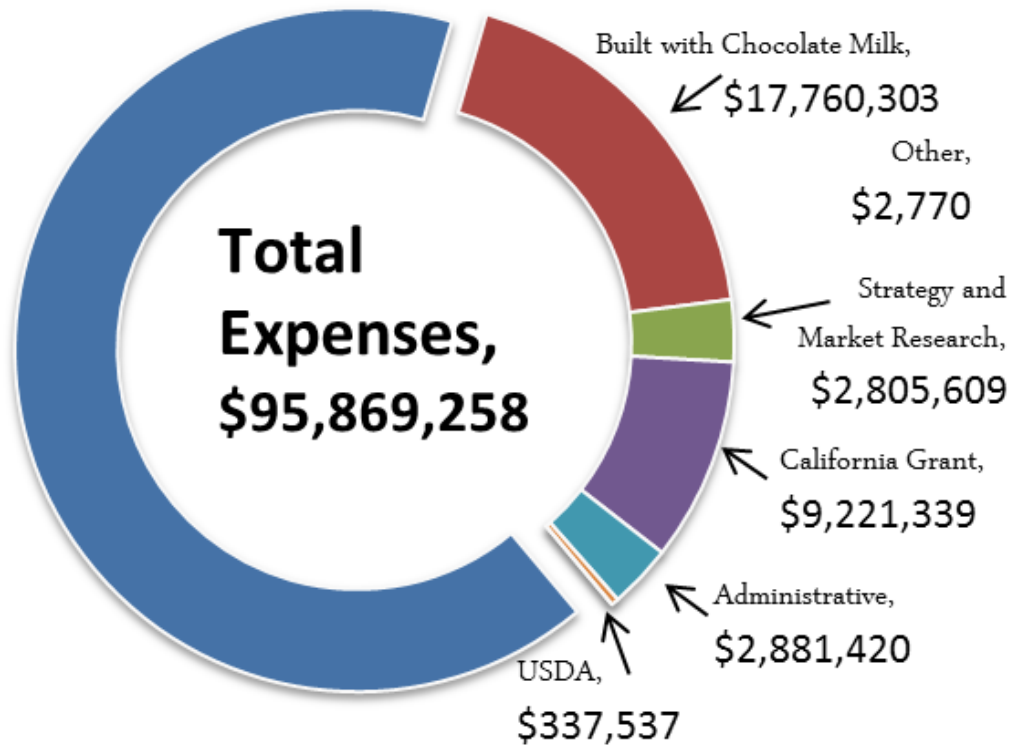
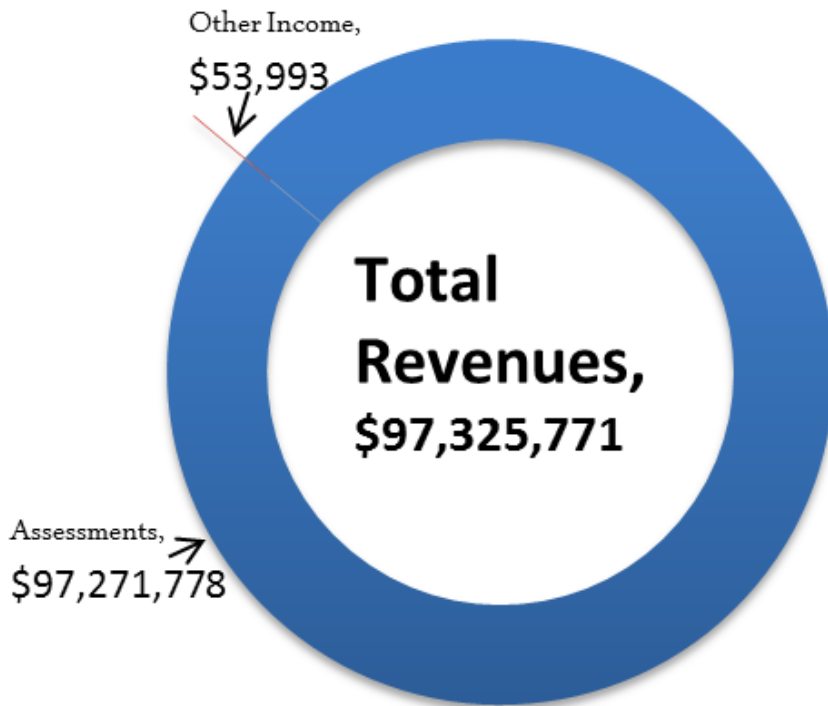
The Fluid Board is funded by a 20-cent-per-hundredweight assessment on fluid milk products processed and marketed commercially in consumer-type packages in the contiguous 48 States and the District of Columbia. The program exempts from assessment those processors who process and market 3 million pounds or less of fluid milk products each month, excluding fluid milk products delivered to consumer residences.

The Fluid Milk Board's revenue for 2013 and 2014 was \$100.3 million and \$97.3 million, respectively. The Fluid Milk Order requires the Fluid Milk Board return 80 percent of the funds received from California processors to the California Milk Processor Board. The amount returned to California from 2013 assessments was \$9.3 million, and the amount returned from 2014 assessments was \$9.2 million. The California fluid milk processor promotion program uses funds to conduct its promotion activities which include the got milk?[®] advertising campaign. Actual income and expenses for 2013 and 2014 are provided in this chapter as well as the following information: approved Fluid Milk Board budgets; contracts reviewed by USDA; and the independent audits of the Fluid Milk Board.

National Fluid Milk Processor Promotion Board 2013 Income and Expenses



National Fluid Milk Processor Promotion Board 2014 Income and Expenses



**National Fluid Milk Processor Promotion Board 2014 Approved Budget
(Thousands)**

Revenues	
Assessments	<u>\$97,200</u>
Total Income	\$97,200
Expenses	
General and Administrative	\$2,855
USDA Oversight	500
California Refund	<u>9,500</u>
Subtotal	\$12,855
Program Budget	
General Market	\$53,780
Hispanic Target	7,650
Chocolate Milk	17,878
Strategy and Market Research	2,877
Unallocated/Oppportunistic	2,110
Independent Evaluation & Measurement	<u>50</u>
Subtotal	\$84,395
Total Budget Expenditures	<u>\$97,200</u>

Source: Budgets received and approved by USDA from the National Fluid Milk Processor Promotion Board.

**National Fluid Milk Processor Promotion Board 2015 Approved Budget
(Thousands)**

Revenues	
Assessments	\$95,100
Carry-forward Funds	<u>1,121</u>
Total Income	\$96,221
Expenses	
General and Administrative	\$2,356
USDA Oversight	525
California Refund	<u>8,735</u>
Subtotal	\$11,616
Program Budget	
General Market	\$68,035
Chocolate Milk	13,600
Strategy and Market Research	<u>2,970</u>
Subtotal	\$84,605
Total Budget Expenditures	<u>\$96,221</u>

Source: Budgets received and approved by USDA from the National Fluid Milk Processor Promotion Board

National Fluid Milk Processor Promotion Board 2013 Contracts Reviewed by USDA

ADVERTISING, PROMOTION, AND PUBLIC RELATIONS

Deutsch (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning
FCB (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning
Inland Label and Marketing Services, LLC InTech Integrated Marketing Services	Storage, Labels and Promotional Giveaways Marketing and Graphic Design Services
Kellogg North America Company	Fluid Milk Promotions
Lowe Campbell Ewald (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning
MGSCOMM	Hispanic Advertising and Promotion Services
Outloud, LLC	Flavored Milk Marketing and Research
Team Services	Promotion Services
Ventura Associates International, LLC	Advertisement Services
Weber Shandwick (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning

MARKET RESEARCH AND EVALUATION, AND CONSULTING SERVICES

Ann Ocana Consulting, LLC	Communication Consulting Services
Applied Thinking, LLC	Marketing Mix Consulting
Artemis Strategy Group	Market Research and Tracking Services
Balvor, LLC	Retail Advisory Services
Beverage Marketing Corporation	Competitive Strategy Consulting
Bonner and Associates, Inc.	Project Management
Communicus, Inc.	Communications Management

Doextra CRM Solutions, LLC
Food For Thought Consulting, Inc.
Fresh Approach

International Dairy Foods Association

Kaley Warner Klemp
Light Industries Service Group
M+ Advisors
Paradigm Sample, LLC

Prime Consulting Group

Protagonist, LLC

Radius Global Market Research

Ruby Do Inc.

Salesforce Software Application
Scientific and Regulatory Research
Communications and Roundtable

Professional Consulting and
Communication Services
Consulting Services
Database Support
Digital Metrics and Strategy
Market Research Database
Flavored Milk Marketing and Research:
Segmentation and Communications
Channels
Advertising and Promotion Services
Breakfast Beverage Segmentation Research;
Consumer Attitudes, Consumption and
Advertising Tracking; Fluid Milk Market
Research
Dairy Crisis Management Team tactical
support

OTHER AGREEMENTS

Abrams, Dr. Steven
Barr, Dr. Susan
Bridgewater Wealth and Financial
Management
Dairy Management Inc.
Economos, Dr. Christina
Godfrey, Vivian
Heaney, Dr. Robert
Hill, Dr. James
Johnson, Dr. Rachael
McLeod, Watkinson & Miller
Rubin, Ronald J.
Saunders, Dr. Michael
Snyder, Cohn, Collyer, Hamilton &
Associates, P.C.
Spectrum Group Productions
Zaborsky, Victor

Medical Advisory Board Member Services
Medical Advisory Board Member Services
Management Services
Shared Research and Consulting Services
Medical Advisory Board Member Services
Management Services
Medical Advisory Board Member Services
Medical Advisory Board Member Services
Medical Advisory Board Member Services
Legal Services
Management Services
Medical Advisory Board Member Services
Accounting Services
Audio Visual Services
Consulting Services

National Fluid Milk Processor Promotion Board 2014 Contracts Reviewed by USDA

ADVERTISING, PROMOTION, AND PUBLIC RELATIONS

Deutsch (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning
DraftFCB (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning
Feeding America	Program Sponsorship
General Mills	Promotion Partnership
InTech Integrated Marketing Services	Marketing and Graphic Design Services
Lowe Campbell Ewald (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning
MGSCOMM	Hispanic Advertising and Promotion Services
News America Marketing	Digital and Print Media
The Quaker Oats Company	Promotion Partnership
Team Services	Promotion Services
Ventura Associates International, LLC	Advertisement Services
Weber Shandwick (Interpublic Group)	Advertising and Promotion Services; Industry Communications; Strategic Planning

MARKET RESEARCH AND EVALUATION, AND CONSULTING SERVICES

Ann Ocana Consulting, LLC	Communication Consulting Services
Applied Thinking, LLC	Marketing Mix Consulting
Crimson Hexagon	Market Metrics and Research
Communicus, Inc.	Communications Management
Doextra CRM Solutions, LLC	Salesforce Software Application
Food For Thought Consulting, Inc.	Scientific and Regulatory Research
Fresh Approach	Communications and Roundtable
International Dairy Foods Association	Professional Consulting and Communication Services
Kaley Warner Klemp	Consulting Services
Paradigm Sample, LLC	Market Research Database
Prime Consulting Group	Flavored Milk Marketing and Research: Segmentation and Communications

Protagonist, LLC

Radius Global Market Research

Red Spark Consulting

OTHER AGREEMENTS

Barr, Dr. Susan

Bridgewater Wealth and Financial
Management

Conference Direct

Dairy Management Inc.

Economos, Dr. Christina

Godfrey, Vivian

Heaney, Dr. Robert

Hill, Dr. James

Johnson, Dr. Rachael

McLeod, Watkinson & Miller

Rubin, Ronald J.

Saunders, Dr. Michael

Snyder, Cohn, Collyer, Hamilton &
Associates, P.C.

Spectrum Group Productions

The Troyanos Group, Ltd.

Zaborsky, Victor

Channels

Advertising and Promotion Services
Breakfast Beverage Segmentation Research;
Consumer Attitudes, Consumption and
Advertising Tracking; Fluid Milk Market
Research

Advertising and Promotion Services

Medical Advisory Board Member Services
Management Services

Meeting Services

Shared Research and Consulting Services

Medical Advisory Board Member Services
Management Services

Medical Advisory Board Member Services

Medical Advisory Board Member Services

Medical Advisory Board Member Services

Legal Services

Management Services

Medical Advisory Board Member Services

Accounting Services

Audio Visual Services

Human Resource Services

Consulting Services

**National Fluid Milk Processor
Promotion Board**

Financial Statements
and
Independent Auditor's Report

Years Ended December 31, 2013 and 2012

**1250 H Street, N.W., Suite 950
Washington, D.C. 20005**

Part I

Financial Statements and Independent Auditor's
Report for the Years Ended December 31, 2013 and
2012

Part II

Independent Auditor's Report on Internal Control Over
Financial Reporting and on Compliance and Other
Matters Based on an Audit of Financial Statements
Performed in Accordance with Government Auditing
Standards

Part III

Independent Auditor's Comments on Compliance with
Government Auditing Standards

PART I

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Independent Auditor's Report

**To the Board of Directors
National Fluid Milk Processor
Promotion Board
Washington, D.C.**

Report on the Financial Statements

We have audited the accompanying financial statements of the National Fluid Milk Processor Promotion Board, which comprise the statements of financial position as of December 31, 2013 and 2012, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the National Fluid Milk Processor Promotion Board as of December 31, 2013 and 2012, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.



**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

Page two

Report on Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying supplementary information shown on pages 16 through 19 is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information, other than the budget amounts, has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole. Budget amounts have not been subjected to the auditing procedures applied in the audits of the financial statements and, accordingly, we do not express an opinion or provide any assurance on these amounts.

Report Issued in Accordance with *Government Auditing Standards*

In accordance with Government Auditing Standards, we have also issued a report dated March 27, 2014 on our consideration of the National Fluid Milk Processor Promotion Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, agreements, and other matters. The purpose of this report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards and should be considered in assessing the results of our audits.



SNYDER COHN, PC
North Bethesda, Maryland
March 27, 2014

National Fluid Milk Processor Promotion Board

Statements of Financial Position

December 31	2013	2012
Assets		
Current assets:		
Cash and cash equivalents	\$ 16,404,665	\$ 11,532,679
Assessments receivable, net	9,567,578	9,283,839
Future year costs	1,240,848	3,695,277
Prepaid expenses	37,214	40,444
Other receivables	74,413	1,998
Total current assets	27,324,718	24,554,237
Property and equipment, net	56,557	85,477
Total assets	\$ 27,381,275	\$ 24,639,714
Liabilities and net assets		
Current liabilities:		
Accounts payable and accrued expenses	\$ 14,227,903	\$ 9,894,364
Deferred compensation, related party	21,750	19,250
Capital lease, current portion	6,480	5,760
Total current liabilities	14,256,133	9,919,374
Other liabilities:		
Capital lease, net of current portion	7,939	14,419
Total liabilities	14,264,072	9,933,793
Commitments		
Net assets:		
Board designated for contingencies	2,500,000	2,500,000
Undesignated	10,617,203	12,205,921
Total net assets	13,117,203	14,705,921
Total liabilities and net assets	\$ 27,381,275	\$ 24,639,714

See Accompanying Notes

National Fluid Milk Processor Promotion Board

Statements of Revenues, Expenses and Changes in Net Assets

For the years ended December 31	2013	2012
Revenues:		
Assessments	\$ 100,273,305	\$ 103,341,981
Late payment charges	54,719	97,082
Interest income	19,801	32,354
Other	41,280	6,261
Total revenues	100,389,105	103,477,678
Expenses:		
Program expenses:		
Meals at home - general market	53,396,385	52,721,233
Refuel	16,235,618	17,616,527
Meals at home - Hispanic	7,867,284	7,811,452
Market research	3,657,732	4,025,153
Business development	8,437,480	9,693,682
Program measurement	38,706	24,549
Total program expenses	89,633,205	91,892,596
Other expenses:		
California grant	9,319,585	9,668,033
Administrative	2,543,510	2,442,369
USDA oversight	397,216	351,606
USDA compliance audit	79,069	104,439
Loss on disposal of property and equipment	3,153	15,229
Interest expense	2,085	2,230
Total other expenses	12,344,618	12,583,906
Total expenses	101,977,823	104,476,502
Excess of expenses over revenues	(1,588,718)	(998,824)
Net assets - beginning	14,705,921	15,704,745
Net assets - ending	\$ 13,117,203	\$ 14,705,921

See Accompanying Notes

National Fluid Milk Processor Promotion Board

Statements of Cash Flows

For the years ended December 31	2013	2012
Cash flows from operating activities:		
Excess of expenses over revenues	\$ (1,588,718)	\$ (998,824)
Adjustments to reconcile excess of expenses over revenues to net cash provided by (used in) operating activities:		
Depreciation	31,017	40,563
Loss on disposal of property and equipment	3,153	15,229
Changes in assets and liabilities:		
Decrease (increase) in assessments receivable	(283,739)	716,219
Decrease in future year costs	2,454,429	755,555
Decrease in prepaid expenses	3,230	963
Increase in other receivables	(72,415)	(1,863)
Increase (decrease) in accounts payable and accrued expenses	4,333,539	(895,693)
Increase in deferred compensation	2,500	951
Net cash provided by (used in) operating activities	4,882,996	(366,900)
Cash flows from investing activities:		
Proceeds from sale of property and equipment	-	500
Payments made for property and equipment	(5,250)	(52,603)
Net cash used in investing activities	(5,250)	(52,103)
Cash flows from financing activities:		
Payments made on capital lease	(5,760)	(4,307)
Net increase (decrease) in cash and cash equivalents	4,871,986	(423,310)
Cash and cash equivalents - beginning	11,532,679	11,955,989
Cash and cash equivalents - ending	\$ 16,404,665	\$ 11,532,679
Supplemental disclosure of cash flow information:		
Cash paid during the year for:		
Interest	\$ 2,085	\$ 2,230
Supplemental schedule of noncash investing and financing activities:		
Capital lease obligation incurred in exchange for copier	-	24,486

See Accompanying Notes

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 1: Summary of significant accounting policies:

The National Fluid Milk Processor Promotion Board (the Board) was established pursuant to the authority of the Fluid Milk Promotion Act (the Act) of 1990, Subtitle H of the Title XIX of the Food, Agriculture, Conservation and Trade Act of 1990. The purpose of the Board is to administer the provisions of the Fluid Milk Promotion Order (the Order) established pursuant to the Act which establishes an orderly procedure for the development, and the financing through an assessment, of a coordinated program of advertising, promotion, and education for fluid milk products.

The Act required that a referendum be conducted among processors to determine if a majority favored implementing the fluid milk program. In the October 1993 initial referendum, the majority of processors voted to approve the implementation of the fluid milk program. A continuation referendum was held in February-March 1996. Of the processors voting in that referendum, the majority favored continuation of the fluid milk program. In November 1998, another continuation referendum was held at the request of the Board and processors voted to continue the fluid milk program as established by the Order. The Act and Order state that the United States Department of Agriculture (USDA) will hold future referenda upon the request of the Board, processors representing 10% or more of the volume of fluid milk products marketed by those processors voting in the last referendum, or when called by the U.S. Secretary of Agriculture.

For financial reporting purposes, the Board is considered a quasi-governmental agency of the U.S. government. As such, it is exempt from income taxes under the Internal Revenue Code. The USDA and its affiliated agencies operate in an oversight capacity of the Board.

The financial statements of the Board are prepared in conformity with accounting principles generally accepted in the United States of America. To facilitate the understanding of data included in the financial statements, summarized below are the more significant accounting policies.

Assessments - Assessments are generated from any person who processes and markets commercially more than 3,000,000 pounds of fluid milk per month by a 20-cent per hundred weight assessment on fluid milk products processed and marketed commercially in consumer-type packages in the 48 contiguous United States and the District of Columbia. Assessment revenue is recognized in the month in which the fluid milk product is processed. Late payment charges are assessed, as provided under the Act, to processors who do not remit monthly assessments within 30 days following the month of assessment.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 1: Summary of significant accounting policies: (continued)

Assessments (continued) - The late payment charge is equal to 1.5% of unpaid assessments and accrues monthly. For both 2013 and 2012, an allowance for doubtful accounts of \$-0- has been established for those amounts where the late charges are being appealed.

California grant - In accordance with the Act, the Board is required to provide a grant to a third party equal to 80% of the assessments collected from Regions 14 and 15 to implement a fluid milk promotion campaign. Disbursements under these provisions are recorded as "California grant" in the accompanying financial statements.

Cash equivalents - For purposes of the statements of cash flows, the Board considers all highly liquid investments with an original maturity of three months or less to be cash equivalents.

Future year costs - Future year costs represent costs incurred for the next budget year's projects.

Assessments receivable - An allowance for uncollectible accounts has been established for those assessments which management has determined as uncollectible. The total allowance for uncollectible accounts at December 31, 2013 and 2012 was \$275,515 and \$189,000, respectively.

Property and equipment - Property and equipment are stated at cost. Depreciation is provided over the estimated useful lives of the related assets on a straight-line basis. Expenditures for repairs and maintenance are charged to expense as incurred.

Use of estimates - The Board has made certain estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

Investments - The Board is required to follow the Agricultural Marketing Service (AMS) investment policy. Accordingly, the Board is authorized to invest in securities consisting of obligations issued or fully insured or guaranteed by the U.S. or any U.S. government agency, including obligations of government-sponsored corporations that mature within one year or less from the date of purchase.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 1: Summary of significant accounting policies: (continued)

Fair value measurements - The FASB Accounting Standards Codification (ASC) 820, *Fair Value Measurements and Disclosures*, provides the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 - inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Board has the ability to access.

Level 2 - inputs to the valuation methodology include:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Board believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Advertising - In accordance with its mission, the Board has approved the development of direct and nondirect response advertising and promotional activities. All costs related to these activities are charged to expense as incurred.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 2: Cash and cash equivalents:

At December 31, 2013 and 2012, the bank balance of the Board's cash deposits was entirely covered by federal depository insurance or was covered by collateral held by the Board's agent in the Board's name. Included in cash and cash equivalents is \$2,500,000 of Board designated cash reserves (unrestricted net assets) at December 31, 2013 and 2012.

Note 3: Property and equipment:

Property and equipment consist of the following as of December 31:

	<u>2013</u>	<u>2012</u>
Furniture and fixtures	\$ 30,261	\$ 33,261
Leasehold improvements	130,324	130,324
Office equipment	<u>112,797</u>	<u>161,891</u>
	273,382	325,476
Less: accumulated depreciation	<u>(216,825)</u>	<u>(239,999)</u>
	<u>\$ 56,557</u>	<u>\$ 85,477</u>

Depreciation expense for the years ended December 31, 2013 and 2012 was \$31,017 and \$40,563, respectively.

Note 4: Capital lease:

In January 2012, the Company entered into a new capital lease for a copier at an effective interest rate of 11.85%. Beginning March 17, 2012, the terms of the lease require 47 monthly payments of \$653, plus additional usage charges as outlined in the agreement. The lease is effective through January 17, 2016.

Future minimum lease payments under the capital lease are as follows:

2014	\$ 7,844
2015	7,844
2016	<u>655</u>
Total minimum lease payments	16,343
Less amount representing interest	<u>(1,924)</u>
Present value of minimum lease payments	<u>\$ 14,419</u>

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 5: Line of credit:

During December 2011, the Board obtained a revolving line of credit for up to \$2,500,000. The line provides for advances from time to time, but must be paid down to \$-0- and remain at \$-0- for 90 consecutive days at least once every 12 months. Interest is accrued on outstanding balances at prime minus 0.25% with an interest floor of 3.75%. The line is secured by all the assets of the Board including cash, assessments, furniture, fixtures, equipment and personal property. The Board is also subject to reporting requirements and financial covenants as outlined in the line of credit agreement. The line of credit agreement expires in December 2014. The amount outstanding on the line of credit at December 31, 2013 and 2012 was \$-0-.

Note 6: Compliance matters:

In accordance with the Act and the Order, effective one year after the date of the establishment of the Board, the Board shall not spend in excess of 5% of the assessments collected for the administration of the Board. For the years ended December 31, 2013 and 2012, the Board did not exceed this limitation.

Note 7: Program administration:

During 2013 and 2012, the Board entered into agreements with various organizations to develop programs for advertising, promotion, consumer education and certain minority initiatives in connection with the national fluid milk campaign. The funding levels vary for the various organizations and are subject to approval. The organizations and the expiration dates of the agreements are as follows:

<u>Agency</u>	<u>Expiration</u>
Draftfcb, Inc.	Until Terminated
Deutsch, Inc.*	Until Terminated
Machado/Garcia-Serra, LLC	Until Terminated
CMGRP, Inc. d/b/a Weber Shandwick	Until Terminated

*Effective January 1, 2014 Lowe & Partners Worldwide, Inc. and the Campbell-Ewald Company merged operations and certain clients of the New York office of Deutsch were moved to the newly formed entity. The Board was one of these clients.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 7: Program administration: (continued)

To assist the above organizations in the development of advertising, promotion, consumer education and certain minority initiatives in connection with the national fluid milk campaign, the Board has also entered into numerous other smaller contracts throughout the years ended December 31, 2013 and 2012. In addition, the Board has two master service agreements with two contractors which allow for scopes of work to be attached on an as needed basis by the Board.

In October 2007, the Board entered into two agreements, an office services and a professional services agreement, with the International Dairy Foods Association (IDFA).

The duration of the office services agreement was from October 1, 2007 through September 30, 2008 and was subsequently extended multiple times through December 31, 2014. Under this agreement, IDFA provides certain administrative services and resources to the Board. Fees for these services are based on predetermined amounts totaling \$4,370 per month plus out-of-pocket costs and hourly charges for additional services. During the years ended December 31, 2013 and 2012, the Board incurred \$57,051 and \$63,868, respectively, under this agreement.

The duration of the professional services agreement was from October 1, 2007 through September 30, 2009 and was subsequently extended multiple times. The current agreement is effective until terminated. The agreement allows for IDFA to assist the Board in performing general services pursuant to its responsibility under the Fluid Milk Promotion Act of 1990. General services are set forth in greater detail in the agreement, but include areas such as:

- Medical and nutritional
- Communications and public relations
- Sales and econometric analysis
- In house legal services
- Specialized IT services
- Other services as requested

Fees for these services are based on hourly rates ranging from \$240 to \$360 plus out-of-pocket costs. Total costs incurred under this agreement were \$116,162 and \$128,925 for the years ended December 31, 2013 and 2012, respectively.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 8: Commitments:

In 2009, the Board entered into an employment agreement with the Chief Executive Officer (CEO). The agreement ran from March 1, 2009 to February 28, 2011, extended through February 28, 2014, and provided for annual compensation, benefits, and increases based upon the CEO's annual performance evaluation. The CEO resigned in November 2013 and is entitled to receive severance compensation and other benefits as outlined in the agreement.

In 2013, the Company entered into a severance agreement with a vice president of marketing. The agreement provided for severance compensation and other benefits as described in the agreement. The agreement was fulfilled before year end.

During February 2012, the Board entered into a one-year contract with Phalanx Technology Group. The contract has been extended on a month to month basis since expiration. The contract requires monthly payments of \$750 for standard information technology support as outlined in the contract. All other work is billed at predetermined hourly rates.

Note 9: Operating leases:

In October 2007, the Board entered into a 20-month sublease agreement with IDFA, which has been extended through December 31, 2015. Under the terms of the sublease, the Board is required to pay escalating monthly base rent plus additional monthly charges equal to a pro rata portion of the building's operating expenses and other charges as defined in the sublease agreement. The Board may terminate the sublease agreement effective June 30 of any year by providing six months advance notice. In the event of termination, monthly rent payments will increase up to the termination date as outlined in the agreement.

The Board incurred \$140,781 and \$136,680 of rental expense during the years ended December 31, 2013 and 2012, respectively.

The future minimum payments under this sublease for the years ending December 31 are as follows:

2014	\$ 145,004
2015	<u>149,359</u>
Total	<u>\$ 294,363</u>

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 10: Transactions with the United States Department of Agriculture:

Under the provisions of the Act and the Order, the Board is required to pay the United States Department of Agriculture certain fees for oversight and evaluation costs. These costs were \$476,285 and \$456,045 during 2013 and 2012, respectively.

Note 11: Related party activity:

Accounting services for the Board are performed by Bridgewater Wealth & Financial Management, LLC (Bridgewater). The agreement is effective through December 31, 2013. The costs of these services were \$443,500 and \$400,000 during 2013 and 2012, respectively. A principal of Bridgewater serves as the Chief Financial Officer of the Board and receives compensation for services performed. At December 31, 2013 and 2012, the total amount due to Bridgewater was \$43,500 and \$-0-, respectively.

Note 12: Retirement plan:

In October 2007, the Board adopted a safe harbor 401(k) plan. An employee is eligible to participate in the plan once the service requirement is completed as defined in the plan document. If an employee was employed by the Board on October 1, 2007, the service requirement was waived and those employees were immediately eligible to participate. Participants may elect to defer a portion of their salary and contribute it to the retirement plan. Additionally, the Board will make a safe harbor matching contribution equal to 100% of deferrals that do not exceed 3% of the employees' compensation plus a 50% match for deferrals between 3% - 5% of employees' compensation. However, for any plan year when the plan is not a "safe harbor" plan, the contribution is at the Board's discretion. The Board's contribution totaled \$118,362 and \$130,631 for the years ended December 31, 2013 and 2012, respectively.

Note 13: Concentration:

Payments to three agencies represented approximately 78% of total program expenses for the year ended December 31, 2013. Accounts payable to three agencies represented approximately 76% of total accounts payable at December 31, 2013.

Payments to three agencies represented approximately 83% of total program expenses for the year ended December 31, 2012. Accounts payable to two agencies represented approximately 48% of total accounts payable at December 31, 2012.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2013 and 2012

Note 14: Subsequent events:

Subsequent events have been evaluated through March 27, 2014, which is the date the financial statements were available to be issued.

**SUPPLEMENTARY
INFORMATION**

National Fluid Milk Processor Promotion Board

**Schedule of Revenues and Expenses
Actual Compared to Budget
(Budget Basis)**

For the year ended December 31, 2013

	Unexpended/ Amended Budget (Unaudited)	Current Year Actual	Actual Over (Under) Budget
Revenues:			
Assessments	\$ 101,000,000	\$ 100,273,305	\$ (726,695)
Late payment charges	-	54,719	54,719
Interest income	20,000	19,801	(199)
Other	-	41,280	41,280
Total revenues	101,020,000	100,389,105	(630,895)
Expenses:			
Program expenses:			
Program - current year	92,006,100	87,988,237	(4,017,863)
Program - prior years	2,892,999	1,644,968	(1,248,031)
Total program expenses	94,899,099	89,633,205	(5,265,894)
Other expenses:			
California grant	9,750,000	9,319,585	(430,415)
Administrative	2,463,050	2,543,510	80,460
USDA oversight	500,000	476,285	(23,715)
Loss on disposal of property	-	3,153	3,153
Interest expense	2,100	2,085	(15)
Total other expenses	12,715,150	12,344,618	(370,532)
Total expenses	107,614,249	101,977,823	(5,636,426)
Unallocated budget	-	-	-
Excess of expenses over revenues	\$ (6,594,249)	\$ (1,588,718)	\$ (5,005,531)

See Independent Auditor's Report

National Fluid Milk Processor Promotion Board

**Schedule of Program Expenses
Actual Compared to Budget
(Budget Basis)**

For the year ended December 31, 2013

	Current Year Amended Budget (Unaudited)	Expended Current Year Actual	Actual Over (Under) Budget	Prior Year Unexpended Budget (Unaudited)	Expended Prior Year Actual	Actual Over (Under) Budget	Total Program Activity
Meals at home - general market	\$ 53,500,000	\$ 52,946,831	\$ (553,169)	\$ 601,619	\$ 449,554	\$ (152,065)	\$ 53,396,385
Refuel	17,116,000	15,987,239	(1,128,761)	640,086	248,379	(391,707)	16,235,618
Meals at home - Hispanic	8,000,000	7,875,322	(124,678)	296,360	(8,038)	(304,398)	7,867,284
Market research	4,000,000	3,380,911	(619,089)	440,217	276,821	(163,396)	3,657,732
Business development	9,345,100	7,759,228	(1,585,872)	834,268	678,252	(156,016)	8,437,480
Program measurement	45,000	38,706	(6,294)	80,449	-	(80,449)	38,706
Total program expenses	\$ 92,006,100	\$ 87,988,237	\$ (4,017,863)	\$ 2,892,999	\$ 1,644,968	\$ (1,248,031)	\$ 89,633,205

See Independent Auditor's Report

National Fluid Milk Processor Promotion Board

Schedule of Administrative Expenses Actual Compared to Budget (Budget Basis)

For the year ended December 31, 2013

	Current Year Amended Budget (Unaudited)	Current Year Actual	Actual Over (Under) Budget
Board meeting expenses	\$ 288,000	\$ 298,665	\$ 10,665
Staff salaries and benefits:			
Staff salaries and benefits	1,880,500	1,735,785	(144,715)
Program management salary allocation	(1,675,000)	(1,415,470)	259,530
Total staff salaries and benefits	<u>205,500</u>	<u>320,315</u>	<u>114,815</u>
Finance and administration:			
Contract staff	160,000	160,000	-
Consultants - HR, IT, strategic	43,750	40,005	(3,745)
Financial services	443,500	443,500	-
Total finance and administration	<u>647,250</u>	<u>643,505</u>	<u>(3,745)</u>
Other operating expenses:			
Audits	65,000	67,562	2,562
Depreciation	33,400	31,017	(2,383)
Employee development	40,000	38,521	(1,479)
Insurance	40,000	33,581	(6,419)
Legal	500,000	500,000	-
Miscellaneous	22,000	20,610	(1,390)
Office facilities	140,800	140,781	(19)
Office supplies and expense	35,000	16,822	(18,178)
Payroll service and pension administration	9,000	7,998	(1,002)
Postage and delivery	12,500	7,754	(4,746)
Staff travel	343,600	311,045	(32,555)
Support and maintenance	51,000	82,551	31,551
Telephone	30,000	22,783	(7,217)
Total other operating expenses	<u>1,322,300</u>	<u>1,281,025</u>	<u>(41,275)</u>
Total administrative expenses	<u>\$ 2,463,050</u>	<u>\$ 2,543,510</u>	<u>\$ 80,460</u>

See Independent Auditor's Report

National Fluid Milk Processor Promotion Board

Schedule of Cash Receipts and Disbursements

For the year ended December 31, 2013

Cash receipts from operations:

Assessments	\$ 99,917,151
Late payment charges	54,719
Interest income	19,801
Other	41,280
Cash receipts from operations	<u>100,032,951</u>

Cash disbursements for operations (95,149,955)

Cash receipts and disbursements from investing activities:

Purchase of property and equipment (5,250)

Cash disbursements for financing activities:

Payments made on capital lease (5,760)

Excess of receipts over disbursements 4,871,986

Cash and cash equivalents - beginning 11,532,679

Cash and cash equivalents - ending \$ 16,404,665

PART II

Independent Auditor's Report on Internal Control
Over Financial Reporting and on Compliance and Other Matters
Based on an Audit of Financial Statements Performed in Accordance
with Government Auditing Standards

**To the Board of Directors
National Fluid Milk Processor
Promotion Board
Washington, D.C.**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of the National Fluid Milk Processor Promotion Board (the Board) which comprise the statements of financial position as of December 31, 2013 and 2012, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements and have issued our report thereon dated March 27, 2014.

Internal Control Over Financial Reporting

In planning and performing our audits of the financial statements, we considered the Board's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. Accordingly, we do not express an opinion on the effectiveness of the Board's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Board's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audits we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

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During the course of the audit, we noted that the employee who is responsible for releasing the wire payments maintained their login information (username and password) for the bank account on an index card with the bank token in an unlocked desk drawer. Controls over cash disbursements would be improved if this information was separated and maintained in a more secure fashion. Upon being notified of the deficiency, the employee indicated they would maintain this information in a locked drawer from this point forward.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Board's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audits, and accordingly, we do not express such an opinion.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Board's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Board's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

This report is intended solely for the information of the Board of Directors of the National Fluid Milk Processor Promotion Board, management, and the Dairy Programs, Promotion and Research Branch of the Agricultural Marketing Service Agency of the United States Department of Agriculture, and is not intended to be and should not be used by anyone other than these specified parties.

Snyder Cohn, PC

SNYDER COHN, PC
North Bethesda, Maryland
March 27, 2014

PART III

**To the Board of Directors
National Fluid Milk Processor
Promotion Board
Washington, D.C.**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial statement audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the statements of financial position of the National Fluid Milk Processor Promotion Board as of December 31, 2013 and 2012, and the related statements of revenues, expenses and changes in net assets and cash flows for the years then ended, and the related notes to the financial statements and have issued our report thereon dated March 27, 2014. The financial statements were prepared in conformity with accounting principles generally accepted in the United States of America.

In connection with our audits, nothing came to our attention, insofar as it relates to accounting matters, that causes us to believe that the National Fluid Milk Processor Promotion Board:

- Failed to comply with laws and regulations applicable to the National Fluid Milk Processor Promotion Board;
- Failed to comply with Section 1160.212 of the Fluid Milk Promotion Order, relating to the use of assessment funds for the purpose of influencing governmental policy or action;
- Expended assessment funds for purposes other than those authorized by the Fluid Milk Promotion Act and the Fluid Milk Promotion Order;
- Expended or obligated assessment funds on any projects prior to the fiscal year in which those funds were authorized to be expended by the National Fluid Milk Processor Promotion Board's approved Budget and Marketing Plan;
- Did not adhere to the original or amended Budget and Marketing Plan for the years ended December 31, 2013 and 2012;
- Did not obtain a written contract or agreement with any person or entity providing goods or services to the National Fluid Milk Processor Promotion Board;
- Failed to comply with Section 1999H, paragraph (g) of the Fluid Milk Promotion Order, relating to the limitations on the types of investments which may be purchased by the National Fluid Milk Processor Promotion Board and the insurance or collateral that must be obtained for all National Fluid Milk Processor Promotion Board deposits and investments;



**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

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- Failed to comply with internal controls other than described below;
- Failed to comply with disclosure requirements for lease commitments;
- Failed to comply with standards established requiring signed contracts, USDA approval letters (if necessary), contract term documentation within the file, and CFO's signature on the Board approval letter;
- Failed to comply with the by-laws of the National Fluid Milk Processor Promotion Board or any other policy of the National Fluid Milk Processor Promotion Board, specifically as they relate to all financial matters, including time and attendance, and travel; or
- Failed to comply with USDA guidelines for AMS Oversight of Commodity Research and Promotion Programs other than described below.

During the course of our audits, the following compliance matters came to our attention, insofar as they relate to internal controls.

While testing cash disbursements, we noted the following:

- One instance totaling \$732,807 in which a wire request did not contain the appropriate documentation indicating who prepared the wire request. In addition, we noted one instance totaling \$53,362 where a wire disbursement did not include appropriate documentation indicating that the wire request was reviewed and was released by the designated individual.
- One instance totaling \$4,500 in which a check was issued to an incorrect vendor. This matter was subsequently corrected by having the incorrect check returned, voided, and management issuing a new check to the correct vendor.
- One employee's reimbursement totaling \$111 did not include appropriate documentation that the reimbursement had been reviewed prior to it being processed for payment; however, the payment voucher for the employee's reimbursement did show indication of it being reviewed prior to payment.

**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

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In addition, we noted several transactions in which the agency was erroneously reimbursed for costs incurred either due to improper receipt documentation and/or personal expenses as described below:

- Dramamine for \$8;
- 12 spouses' meals totaling \$117; and
- In-room dining without a detail receipt totaling \$115.

These items were brought to management's attention during the course of the audit and as a result the next wire payment was reduced by the above amounts except the in-room dining charge. This credit was limited to \$90 as it is the Board's policy to limit reimbursements without a receipt to \$25.

While employees are allowed to have alcohol as part of their meal, the Board does require that it be consumed with a meal rather than with an appetizer or stand alone. During the course of our audit, we noted one situation where an employee was reimbursed for alcohol that was consumed with an appetizer rather than with a meal. This was brought to management's attention and the employee was reminded of the Board's policy by the CFO.

Additionally, we noted one instance in which one of the agencies was erroneously paid twice due to the fact that the cover memo billing report was not correctly updated from the prior month. This was caught by management the following day and the funds were returned to the Board (totaling \$329,186).

During the course of our audits, the following compliance matters came to our attention, insofar as it relates to the USDA guidelines for AMS Oversight of Commodity Research and Promotion Programs. However, our audits were not directed primarily toward obtaining knowledge of such noncompliance.

Business credit cards are used for personal expenses on certain occasions. When this occurs, the Board is reimbursed for the personal expenses by the respective employee within a reasonable time period. The Board believes it is impractical to use two different credit cards to split one bill which includes both business and personal charges. In addition, there is a strict approval and review process of each employee's expense report and its supporting receipt documentation to verify there are no personal expenses charged that are not being reimbursed by the employee.

The Board also pays for spouses' dinners at Board meetings and feels it is reasonable to do so as Board members volunteer their time away from home. Additionally, we noted one instance as described above which included payment for spouses' meals.

The Board's policy regarding donations utilizing funds derived from assessments is not a written policy.

**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

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This report is intended solely for the information and use of the National Fluid Milk Processor Promotion Board, management, and the Dairy Programs, Promotion and Research Branch of the Agricultural Marketing Service Agency of the United States Department of Agriculture and is not intended to be and should not be used by anyone other than these specified parties.

Snyder Cohn, PC

SNYDER COHN, PC
North Bethesda, Maryland
March 27, 2014

**National Fluid Milk Processor
Promotion Board**

Financial Statements
and
Independent Auditor's Report

Years Ended December 31, 2014 and 2013

**1250 H Street, N.W., Suite 950
Washington, D.C. 20005**

Part I

Financial Statements and Independent Auditor's
Report for the Years Ended December 31, 2014 and
2013

Part II

Independent Auditor's Report on Internal Control Over
Financial Reporting and on Compliance and Other
Matters Based on an Audit of Financial Statements
Performed in Accordance with Government Auditing
Standards

Part III

Independent Auditor's Comments on Compliance with
Government Auditing Standards

PART I

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Independent Auditor's Report

**To the Board of Directors
National Fluid Milk Processor
Promotion Board
Washington, D.C.**

Report on the Financial Statements

We have audited the accompanying financial statements of the National Fluid Milk Processor Promotion Board, which comprise the statements of financial position as of December 31, 2014 and 2013, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the National Fluid Milk Processor Promotion Board as of December 31, 2014 and 2013, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.



**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

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Report on Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying supplementary information shown on pages 16 through 19 is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information, other than the budget amounts, has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole. Budget amounts have not been subjected to the auditing procedures applied in the audits of the financial statements and, accordingly, we do not express an opinion or provide any assurance on these amounts.

Report Issued in Accordance with *Government Auditing Standards*

In accordance with Government Auditing Standards, we have also issued a report dated March 27, 2015 on our consideration of the National Fluid Milk Processor Promotion Board's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, agreements, and other matters. The purpose of this report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards and should be considered in assessing the results of our audits.

A handwritten signature in blue ink that reads "Snyder Cohn, PC". The signature is written in a cursive, flowing style.

SNYDER COHN, PC
North Bethesda, Maryland
March 27, 2015

National Fluid Milk Processor Promotion Board

Statements of Financial Position

December 31	2014	2013
Assets		
Current assets:		
Cash and cash equivalents	\$ 14,620,286	\$ 16,404,665
Assessments receivable, net	9,058,779	9,567,578
Future year costs	19,825	1,240,848
Prepaid expenses	49,192	37,214
Other receivables	-	74,413
Total current assets	23,748,082	27,324,718
Property and equipment, net	59,266	56,557
Total assets	\$ 23,807,348	\$ 27,381,275
Liabilities and net assets		
Current liabilities:		
Accounts payable and accrued expenses	\$ 8,923,378	\$ 14,227,903
Coupon liability	278,700	-
Deferred compensation, related party	-	21,750
Capital lease, current portion	5,264	6,480
Total current liabilities	9,207,342	14,256,133
Other liabilities:		
Capital lease, net of current portion	26,290	7,939
Total liabilities	9,233,632	14,264,072
Commitments		
Net assets:		
Board designated for contingencies	2,500,000	2,500,000
Undesignated	12,073,716	10,617,203
Total net assets	14,573,716	13,117,203
Total liabilities and net assets	\$ 23,807,348	\$ 27,381,275

See Accompanying Notes

National Fluid Milk Processor Promotion Board

Statements of Revenues, Expenses and Changes in Net Assets

For the years ended December 31	2014	2013
Revenues:		
Assessments	\$ 97,271,778	\$ 100,273,305
Late payment charges	28,225	54,719
Interest income	16,540	19,801
Other	9,228	41,280
Total revenues	97,325,771	100,389,105
Expenses:		
Program expenses:		
Meals at home	62,860,280	66,913,738
Built with chocolate milk	17,760,303	18,923,294
Strategy and market research	2,805,609	3,796,173
Total program expenses	83,426,192	89,633,205
Other expenses:		
California grant	9,221,339	9,319,585
Administrative	2,881,420	2,543,510
USDA oversight	243,641	397,216
USDA compliance audit	93,896	79,069
Loss on disposal of property and equipment	1,004	3,153
Interest expense	1,766	2,085
Total other expenses	12,443,066	12,344,618
Total expenses	95,869,258	101,977,823
Excess of revenues over expenses (expenses over revenues)	1,456,513	(1,588,718)
Net assets - beginning	13,117,203	14,705,921
Net assets - ending	\$ 14,573,716	\$ 13,117,203

See Accompanying Notes

National Fluid Milk Processor Promotion Board

Statements of Cash Flows

For the years ended December 31	2014	2013
Cash flows from operating activities:		
Excess of revenues over expenses (expenses over revenues) \$	1,456,513	\$ (1,588,718)
Adjustments to reconcile excess of revenues over expenses (expenses over revenues) to net cash provided by (used in) operating activities:		
Depreciation	31,075	31,017
Loss on disposal of property and equipment	1,004	3,153
Changes in assets and liabilities:		
Decrease (increase) in assessments receivable	508,799	(283,739)
Decrease in future year costs	1,221,023	2,454,429
Decrease (increase) in prepaid expenses	(11,978)	3,230
Decrease (increase) in other receivables	74,413	(72,415)
Increase (decrease) in accounts payable and accrued expenses	(5,304,525)	4,333,539
Increase in coupon liability	278,700	-
Increase (decrease) in deferred compensation	(21,750)	2,500
Net cash provided by (used in) operating activities	(1,766,726)	4,882,996
Cash flows from investing activities:		
Payments made for property and equipment	(11,484)	(5,250)
Cash flows from financing activities:		
Payments made on capital lease	(6,169)	(5,760)
Net increase (decrease) in cash and cash equivalents	(1,784,379)	4,871,986
Cash and cash equivalents - beginning	16,404,665	11,532,679
Cash and cash equivalents - ending	\$ 14,620,286	\$ 16,404,665
Supplemental disclosure of cash flow information:		
Cash paid during the year for:		
Interest	\$ 1,766	\$ 2,085
Supplemental schedule of noncash investing and financing activities:		
Capital lease obligation incurred in exchange for copier	32,378	-
Forgiveness of debt for copier (Note 4)	9,074	-

See Accompanying Notes

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 1: Summary of significant accounting policies:

The National Fluid Milk Processor Promotion Board (the Board) was established pursuant to the authority of the Fluid Milk Promotion Act (the Act) of 1990, Subtitle H of the Title XIX of the Food, Agriculture, Conservation and Trade Act of 1990. The purpose of the Board is to administer the provisions of the Fluid Milk Promotion Order (the Order) established pursuant to the Act which establishes an orderly procedure for the development, and the financing through an assessment, of a coordinated program of advertising, promotion, and education for fluid milk products.

The Act required that a referendum be conducted among processors to determine if a majority favored implementing the fluid milk program. In the October 1993 initial referendum, the majority of processors voted to approve the implementation of the fluid milk program. A continuation referendum was held in February-March 1996. Of the processors voting in that referendum, the majority favored continuation of the fluid milk program. In November 1998, another continuation referendum was held at the request of the Board and processors voted to continue the fluid milk program as established by the Order. The Act and Order state that the United States Department of Agriculture (USDA) will hold future referenda upon the request of the Board, processors representing 10% or more of the volume of fluid milk products marketed by those processors voting in the last referendum, or when called by the U.S. Secretary of Agriculture.

For financial reporting purposes, the Board is considered a quasi-governmental agency of the U.S. government. As such, it is exempt from income taxes under the Internal Revenue Code. The USDA and its affiliated agencies operate in an oversight capacity of the Board.

The financial statements of the Board are prepared in conformity with accounting principles generally accepted in the United States of America. To facilitate the understanding of data included in the financial statements, summarized below are the more significant accounting policies.

Assessments - Assessments are generated from any person who processes and markets commercially more than 3,000,000 pounds of fluid milk per month by a 20-cent per hundred weight assessment on fluid milk products processed and marketed commercially in consumer-type packages in the 48 contiguous United States and the District of Columbia. Assessment revenue is recognized in the month in which the fluid milk product is processed. Late payment charges are assessed, as provided under the Act, to processors who do not remit monthly assessments within 30 days following the month of assessment.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 1: Summary of significant accounting policies: (continued)

Assessments (continued) - The late payment charge is equal to 1.50% of unpaid assessments and accrues monthly. For both 2014 and 2013, an allowance for doubtful accounts of \$-0- has been established for those amounts where the late charges are being appealed.

California grant - In accordance with the Act, the Board is required to provide a grant to a third party equal to 80% of the assessments collected from Regions 14 and 15 to implement a fluid milk promotion campaign. Disbursements under these provisions are recorded as "California grant" in the accompanying financial statements.

Cash equivalents - For purposes of the statements of cash flows, the Board considers all highly liquid investments with an original maturity of three months or less to be cash equivalents.

Future year costs - Future year costs represent costs incurred for the next budget year's projects.

Assessments receivable - An allowance for uncollectible accounts has been established for those assessments which management has determined as uncollectible. The total allowance for uncollectible accounts at December 31, 2014 and 2013 was \$764,664 and \$275,515, respectively.

Property and equipment - Property and equipment are stated at cost. Depreciation is provided over the estimated useful lives of the related assets on a straight-line basis. Expenditures for repairs and maintenance are charged to expense as incurred.

Use of estimates - The Board has made certain estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

Investments - The Board is required to follow the Agricultural Marketing Service (AMS) investment policy. Accordingly, the Board is authorized to invest in securities consisting of obligations issued or fully insured or guaranteed by the U.S. or any U.S. government agency, including obligations of government-sponsored corporations that mature within one year or less from the date of purchase.

Reclassifications - Certain accounts in the prior year Statement of Revenues, Expenses and Changes in Net Assets have been reclassified for comparative purposes to conform with the presentation in the current year statement. Total net assets and excess of expenses over revenues are unchanged due to these reclassifications.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 1: Summary of significant accounting policies: (continued)

Fair value measurements - The FASB Accounting Standards Codification (ASC) 820, *Fair Value Measurements and Disclosures*, provides the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 - inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Board has the ability to access.

Level 2 - inputs to the valuation methodology include:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Board believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Advertising - In accordance with its mission, the Board has approved the development of direct and nondirect response advertising and promotional activities. All costs related to these activities are charged to expense as incurred.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 2: Cash and cash equivalents:

At December 31, 2014 and 2013, the bank balance of the Board's cash deposits was entirely covered by federal depository insurance or was covered by collateral held by the Board's agent in the Board's name. Included in cash and cash equivalents is \$2,500,000 of Board designated cash reserves (unrestricted net assets) at December 31, 2014 and 2013.

Note 3: Property and equipment:

Property and equipment consist of the following as of December 31:

	<u>2014</u>	<u>2013</u>
Furniture and fixtures	\$ 30,261	\$ 30,261
Leasehold improvements	134,790	130,324
Office equipment	117,437	112,797
	<u>282,488</u>	<u>273,382</u>
Less: accumulated depreciation	<u>(223,222)</u>	<u>(216,825)</u>
	<u>\$ 59,266</u>	<u>\$ 56,557</u>

Depreciation expense for the years ended December 31, 2014 and 2013 was \$31,075 and \$31,017, respectively.

Note 4: Capital lease:

In January 2012, the Company entered into a capital lease for a copier at an effective interest rate of 11.85%. Beginning March 17, 2012, the terms of the lease required 47 monthly payments of \$653, plus additional usage charges as outlined in the agreement. The lease was effective through January 17, 2016.

In October 2014, the Company exchanged its 2012 copier for a new copier by entering into a new capital lease with an effective interest rate of 10.73%. The terms of the lease require 60 monthly payments of \$700, plus additional usage charges as outlined in the agreement. The lease is effective through October 1, 2019.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 4: Capital lease: (continued)

Future minimum lease payments under the capital lease are as follows:

2015	\$	8,395
2016		8,395
2017		8,395
2018		8,395
2019		<u>6,996</u>
Total minimum lease payments		40,576
Less amount representing interest		<u>(9,022)</u>
Present value of minimum lease payments	\$	<u>31,554</u>

Note 5: Line of credit:

During December 2011, the Board obtained a revolving line of credit for up to \$2,500,000. The line provides for advances from time to time, but must be paid down to \$-0- and remain at \$-0- for 90 consecutive days at least once every 12 months. Interest is accrued on outstanding balances at prime minus 0.25% with an interest floor of 3.75%. The line is secured by all the assets of the Board including cash, assessments, furniture, fixtures, equipment and personal property. The Board is also subject to reporting requirements and financial covenants as outlined in the line of credit agreement. The line of credit agreement expires in December 2016. The amount outstanding on the line of credit at December 31, 2014 and 2013 was \$-0-.

Note 6: Compliance matters:

In accordance with the Act and the Order, effective one year after the date of the establishment of the Board, the Board shall not spend in excess of 5% of the assessments collected for the administration of the Board. For the years ended December 31, 2014 and 2013, the Board did not exceed this limitation.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 7: Program administration:

During 2014 and 2013, the Board entered into agreements with various organizations to develop programs for advertising, promotion, consumer education and certain minority initiatives in connection with the national fluid milk campaign. The funding levels vary for the various organizations and are subject to approval. The organizations and the expiration dates of the agreements are as follows:

<u>Agency</u>	<u>Expiration</u>
FCB Worldwide, Inc.	Until Terminated
Lowe Campbell Ewald	Until Terminated
Commonground/MGS	Until Terminated
CMGRP, Inc. d/b/a Weber Shandwick	Until Terminated

To assist the above organizations in the development of advertising, promotion, consumer education and certain minority initiatives in connection with the national fluid milk campaign, the Board has also entered into numerous other smaller contracts throughout the years ended December 31, 2014 and 2013. In addition, the Board has two master service agreements with two contractors which allow for scopes of work to be attached on an as needed basis by the Board.

In October 2007, the Board entered into two agreements, an office services and a professional services agreement, with the International Dairy Foods Association (IDFA).

The duration of the office services agreement was from October 1, 2007 through September 30, 2008 and was subsequently extended multiple times through December 31, 2015. Under this agreement, IDFA provides certain administrative services and resources to the Board. Fees for these services are based on predetermined amounts totaling \$4,370 per month plus out-of-pocket costs and hourly charges for additional services. During the years ended December 31, 2014 and 2013, the Board incurred \$55,118 and \$57,051, respectively, under this agreement.

The duration of the professional services agreement was from October 1, 2007 through September 30, 2009 and was subsequently extended multiple times. The current agreement is effective until terminated. The agreement allows for IDFA to assist the Board in performing general services pursuant to its responsibility under the Fluid Milk Promotion Act of 1990. General services are set forth in greater detail in the agreement, but include areas such as:

- Medical and nutritional
- Communications and public relations
- Sales and econometric analysis
- In house legal services
- Specialized IT services
- Other services as requested

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 7: Program administration: (continued)

Fees for these services are based on hourly rates ranging from \$240 to \$360 plus out-of-pocket costs. Total costs incurred under this agreement were \$63,102 and \$116,162 for the years ended December 31, 2014 and 2013, respectively.

Note 8: Commitments:

In 2009, the Board entered into an employment agreement with the Chief Executive Officer (CEO). The agreement ran from March 1, 2009 to February 28, 2011, extended through February 28, 2014, and provided for annual compensation, benefits, and increases based upon the CEO's annual performance evaluation. The CEO resigned in November 2013 and is entitled to receive severance compensation and other benefits as outlined in the agreement. The agreement was fulfilled in 2014.

In 2013, the Company entered into a severance agreement with a vice president of marketing. The agreement provided for severance compensation and other benefits as described in the agreement. The agreement was fulfilled in 2013.

During February 2012, the Board entered into a one-year contract with Phalanx Technology Group. The contract has been extended on a month to month basis since expiration. The contract requires monthly payments of \$750 for standard information technology support as outlined in the contract. All other work is billed at predetermined hourly rates.

Note 9: Operating leases:

In October 2007, the Board entered into a 20-month sublease agreement with IDFA, which has been extended through December 31, 2015. Under the terms of the sublease, the Board is required to pay escalating monthly base rent plus additional monthly charges equal to a pro rata portion of the building's operating expenses and other charges as defined in the sublease agreement. The Board may terminate the sublease agreement effective June 30 of any year by providing six months advance notice. In the event of termination, monthly rent payments will increase up to the termination date as outlined in the agreement.

The Board incurred \$145,004 and \$140,781 of rental expense during the years ended December 31, 2014 and 2013, respectively.

The future minimum payment under this sublease for the year ended December 31, 2015 is \$149,359.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 10: Transactions with the United States Department of Agriculture:

Under the provisions of the Act and the Order, the Board is required to pay the United States Department of Agriculture certain fees for oversight and evaluation costs. These costs were \$337,537 and \$476,285 during 2014 and 2013, respectively.

Note 11: Related party activity:

Accounting services for the Board are performed by Bridgewater Wealth & Financial Management, LLC (Bridgewater). The agreement is effective through December 31, 2015. The costs of accounting services were \$395,965 and \$443,500 during 2014 and 2013, respectively. A principal of Bridgewater serves as the Chief Financial Officer of the Board, for which Bridgewater is compensated. At December 31, 2014 and 2013, the total amount due to Bridgewater was \$-0- and \$43,500, respectively.

Note 12: Retirement plan:

In October 2007, the Board adopted a safe harbor 401(k) plan. An employee is eligible to participate in the plan once the service requirement is completed as defined in the plan document. If an employee was employed by the Board on October 1, 2007, the service requirement was waived and those employees were immediately eligible to participate. Participants may elect to defer a portion of their salary and contribute it to the retirement plan. Additionally, the Board will make a safe harbor matching contribution equal to 100% of deferrals that do not exceed 3% of the employees' compensation plus a 50% match for deferrals between 3% - 5% of employees' compensation. However, for any plan year when the plan is not a "safe harbor" plan, the contribution is at the Board's discretion. The Board's contribution totaled \$113,504 and \$118,362 for the years ended December 31, 2014 and 2013, respectively.

Note 13: Concentration:

Payments to three agencies represented approximately 90% of total program expenses for the year ended December 31, 2014. Accounts payable to these three agencies represented approximately 58% of total accounts payable at December 31, 2014.

Payments to three agencies represented approximately 78% of total program expenses for the year ended December 31, 2013. Accounts payable to these three agencies represented approximately 76% of total accounts payable at December 31, 2013.

National Fluid Milk Processor Promotion Board

Notes to Financial Statements

December 31, 2014 and 2013

Note 14: Subsequent events:

Subsequent events have been evaluated through March 27, 2015, which is the date the financial statements were available to be issued.

**SUPPLEMENTARY
INFORMATION**

National Fluid Milk Processor Promotion Board

**Schedule of Revenues and Expenses
Actual Compared to Budget
(Budget Basis)**

For the year ended December 31, 2014

	Unexpended/ Amended Budget (Unaudited)	Current Year Actual	Actual Over (Under) Budget
Revenues:			
Assessments	\$ 97,200,000	\$ 97,271,778	\$ 71,778
Late payment charges	-	28,225	28,225
Interest income	-	16,540	16,540
Other	-	9,228	9,228
Total revenues	97,200,000	97,325,771	125,771
Expenses:			
Program expenses:			
Program - current year	84,170,000	81,452,514	(2,717,486)
Program - prior years	3,773,601	1,973,678	(1,799,923)
Total program expenses	87,943,601	83,426,192	(4,517,409)
Other expenses:			
California grant	9,500,000	9,221,339	(278,661)
Administrative	3,030,000	2,881,420	(148,580)
USDA expenses	500,000	337,537	(162,463)
Loss on disposal of property	-	1,004	1,004
Interest expense	1,400	1,766	366
Total other expenses	13,031,400	12,443,066	(588,334)
Total expenses	100,975,001	95,869,258	(5,105,743)
Unallocated budget	-	-	-
Excess of revenues over expenses (expenses over revenue)	\$ (3,775,001)	\$ 1,456,513	\$ (5,231,514)

See Independent Auditor's Report

National Fluid Milk Processor Promotion Board

**Schedule of Program Expenses
Actual Compared to Budget
(Budget Basis)**

For the year ended December 31, 2014

	<u>Current Year Amended Budget (Unaudited)</u>	<u>Expended Current Year Actual</u>	<u>Actual Over (Under) Budget</u>	<u>Prior Year Unexpended Budget (Unaudited)</u>	<u>Expended Prior Year Actual</u>	<u>Actual Over (Under) Budget</u>	<u>Total Program Activity</u>
Meals at home	\$ 62,800,470	\$ 62,279,813	\$ (520,657)	\$ 1,718,678	\$ 580,467	\$ (1,138,211)	\$ 62,860,280
Built with chocolate milk	17,877,530	16,656,134	(1,221,396)	1,725,196	1,104,169	(621,027)	17,760,303
Strategy and market research	2,927,000	2,516,567	(410,433)	329,727	289,042	(40,685)	2,805,609
Unallocated/opportunistic	565,000	-	(565,000)	-	-	-	-
Total program expenses	\$ 84,170,000	\$ 81,452,514	\$ (2,717,486)	\$ 3,773,601	\$ 1,973,678	\$ (1,799,923)	\$ 83,426,192

See Independent Auditor's Report

National Fluid Milk Processor Promotion Board

**Schedule of Administrative Expenses
Actual Compared to Budget
(Budget Basis)**

For the year ended December 31, 2014

	Current Year Amended Budget (Unaudited)	Current Year Actual	Actual Over (Under) Budget
Board meeting expenses	\$ 295,000	\$ 246,340	\$ (48,660)
Staff salaries and benefits:			
Staff salaries and benefits	1,805,900	1,912,198	106,298
Program management salary allocation	(1,200,000)	(1,235,330)	(35,330)
Total staff salaries and benefits	<u>605,900</u>	<u>676,868</u>	<u>70,968</u>
Finance and administration:			
Contract staff	160,000	160,000	-
Consultants - HR, IT, strategic	95,000	86,485	(8,515)
Financial services	400,000	395,965	(4,035)
Total finance and administration	<u>655,000</u>	<u>642,450</u>	<u>(12,550)</u>
Other operating expenses:			
Audits	69,000	65,957	(3,043)
Depreciation	31,000	31,075	75
Dues and memberships	26,440	26,440	-
Employee development	40,000	20,930	(19,070)
Insurance	35,000	37,170	2,170
Legal	470,000	435,791	(34,209)
Miscellaneous	6,200	2,640	(3,560)
Office facilities	145,000	145,004	4
Office supplies and expense	16,500	22,906	6,406
Payroll service and pension administration	9,500	7,437	(2,063)
Postage and delivery	8,000	6,744	(1,256)
Recruiting expense	85,000	85,357	357
Relocation expense	-	20,000	20,000
Staff travel	360,000	332,282	(27,718)
Support and maintenance	51,000	53,081	2,081
Telephone	22,500	22,948	448
Unallocated administrative	97,560	-	(97,560)
Total other operating expenses	<u>1,472,700</u>	<u>1,315,762</u>	<u>(156,938)</u>
Total administrative expenses	<u>\$ 3,028,600</u>	<u>\$ 2,881,420</u>	<u>\$ (147,180)</u>

See Independent Auditor's Report

National Fluid Milk Processor Promotion Board
Schedule of Cash Receipts and Disbursements

For the year ended December 31, 2014

Cash receipts from operations:	
Assessments	\$ 97,854,990
Late payment charges	28,225
Interest income	16,540
Other	9,228
Cash receipts from operations	<u>97,908,983</u>
Cash disbursements for operations	(99,675,710)
Cash receipts and disbursements from investing activities:	
Purchase of property and equipment	(11,483)
Cash disbursements for investing activities:	
Payments made on capital lease	<u>(6,169)</u>
Excess of disbursements over receipts	(1,784,379)
Cash and cash equivalents - beginning	<u>16,404,665</u>
Cash and cash equivalents - ending	<u><u>\$ 14,620,286</u></u>

See Independent Auditor's Report

PART II

Independent Auditor's Report on Internal Control
Over Financial Reporting and on Compliance and Other Matters
Based on an Audit of Financial Statements Performed in Accordance
with Government Auditing Standards

**To the Board of Directors
National Fluid Milk Processor
Promotion Board
Washington, D.C.**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of the National Fluid Milk Processor Promotion Board (the Board) which comprise the statements of financial position as of December 31, 2014 and 2013, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements and have issued our report thereon dated March 27, 2015.

Internal Control Over Financial Reporting

In planning and performing our audits of the financial statements, we considered the Board's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. Accordingly, we do not express an opinion on the effectiveness of the Board's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Board's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audits we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

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Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Board's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audits, and accordingly, we do not express such an opinion.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Board's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Board's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

This report is intended solely for the information of the Board of Directors of the National Fluid Milk Processor Promotion Board, management, and the Dairy Programs, Promotion and Research Branch of the Agricultural Marketing Service Agency of the United States Department of Agriculture, and is not intended to be and should not be used by anyone other than these specified parties.

Snyder Cohn, PC

SNYDER COHN, PC
North Bethesda, Maryland
March 27, 2015

PART III

**To the Board of Directors
National Fluid Milk Processor
Promotion Board
Washington, D.C.**

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial statement audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the National Fluid Milk Processor Promotion Board which comprise the statements of financial position as of December 31, 2014 and 2013, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended, and the related notes to the financial statements and have issued our report thereon dated March 27, 2015. The financial statements were prepared in conformity with accounting principles generally accepted in the United States of America.

In connection with our audits, nothing came to our attention, insofar as it relates to accounting matters, that causes us to believe that the National Fluid Milk Processor Promotion Board:

- Failed to comply with laws and regulations applicable to the National Fluid Milk Processor Promotion Board;
- Failed to comply with Section 1160.212 of the Fluid Milk Promotion Order, relating to the use of assessment funds for the purpose of influencing governmental policy or action;
- Expended assessment funds for purposes other than those authorized by the Fluid Milk Promotion Act and the Fluid Milk Promotion Order;
- Expended or obligated assessment funds on any projects prior to the fiscal year in which those funds were authorized to be expended by the National Fluid Milk Processor Promotion Board's approved Budget and Marketing Plan;
- Did not adhere to the original or amended Budget and Marketing Plan for the years ended December 31, 2014 and 2013;
- Did not obtain a written contract or agreement with any person or entity providing goods or services to the National Fluid Milk Processor Promotion Board;
- Failed to comply with Section 1999H, paragraph (g) of the Fluid Milk Promotion Order, relating to the limitations on the types of investments which may be purchased by the National Fluid Milk Processor Promotion Board and the insurance or collateral that must be obtained for all National Fluid Milk Processor Promotion Board deposits and investments;



**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

Page two

- Failed to comply with internal controls other than described below;
- Failed to comply with disclosure requirements for lease commitments;
- Failed to comply with standards established requiring signed contracts, USDA approval letters (if necessary), contract term documentation within the file, and CFO's signature on the Board approval letter;
- Failed to comply with the by-laws of the National Fluid Milk Processor Promotion Board or any other policy of the National Fluid Milk Processor Promotion Board, specifically as they relate to all financial matters, including time and attendance, and travel; or
- Failed to comply with USDA guidelines for AMS Oversight of Commodity Research and Promotion Programs other than described below.

During the course of our audits, the following compliance matters came to our attention, insofar as they relate to internal controls.

While testing cash disbursements, we noted the following:

- The Board's travel policy requires detailed receipts for all out of pocket expenses in excess of \$25. If an appropriate receipt is not provided the reimbursement amount is limited to \$25. We noted one employee, totaling \$189, and one contractor, totaling \$190, who received reimbursement without the appropriate detailed invoices and whose reimbursements were not limited to \$25. The controller received a waiver from the CFO for both instances before processing and paying the reimbursement.
- We noted one instance totaling \$7 in which a contractor was erroneously reimbursed for alcohol. This was brought to management's attention and the amount was withheld from the next reimbursement.
- We also noted one instance totaling \$19 where an employee was erroneously reimbursed for a personal expense. The amount was withheld from the employee's reimbursement after bringing it to management's attention.
- While employees are allowed to have alcohol as part of their meal, the Board does require that it be consumed with a meal rather than with an appetizer or stand alone. During the course of our audit we noted six instances totaling \$369 in which employees were reimbursed using non-detailed receipts. Accordingly we were unable to determine if the Board's policy regarding alcohol consumption was properly followed.

**To the Board of Directors
National Fluid Milk Processor
Promotion Board**

Page three

During the course of our audits, the following compliance matters came to our attention, insofar as it relates to the USDA guidelines for AMS Oversight of Commodity Research and Promotion Programs. However, our audits were not directed primarily toward obtaining knowledge of such noncompliance.

Business credit cards are used for personal expenses on certain occasions. When this occurs, the Board is reimbursed for the personal expenses by the respective employee within a reasonable time period. The Board believes it is impractical to use two different credit cards to split one bill which includes both business and personal charges. In addition, there is a strict approval and review process of each employee's expense report and its supporting receipt documentation to verify there are no personal expenses charged that are not being reimbursed by the employee.

The Board also pays for spouses' dinners at Board meetings and feels it is reasonable to do so as Board members volunteer their time away from home.

The Board's policy regarding donations utilizing funds derived from assessments is not a written policy.

During the course of our audits, the following matters came to our attention, insofar as it relates to the daily operations of the Board.

We noted that the Board hires independent contractors to assist in its daily operations. It is critical that a business properly analyze and categorize its employees versus independent contractors to ensure that all applicable employment laws are being followed and that all appropriate payroll taxes are being withheld and paid. We suggest that the Board evaluate contractor scenarios to ensure they have been properly identified as independent contractors.

This report is intended solely for the information and use of the National Fluid Milk Processor Promotion Board, management, and the Dairy Programs, Promotion and Research Branch of the Agricultural Marketing Service Agency of the United States Department of Agriculture and is not intended to be and should not be used by anyone other than these specified parties.



SNYDER COHN, PC
North Bethesda, Maryland
March 27, 2015

Chapter 7

Qualified Dairy Product Promotion, Research, or Nutrition Education Programs

Qualified Programs are State, regional, or importer organizations that conduct a dairy product promotion, research, or nutrition education program, authorized by Federal or State law, or that were active programs prior to the Dairy Production Stabilization Act of 1983 (Dairy Act).

The Secretary annually certifies Qualified Programs. To receive certification, the Qualified Program must: (1) conduct activities that are intended to increase human consumption of milk and dairy products generally; (2) have been active and ongoing before passage of the Dairy Act, except for programs operated under the laws of the United States or any State; (3) be primarily financed by producers, either individually or through cooperative associations or dairy importers; (4) not use a private brand or trade name in its advertising and promotion of dairy products (unless approved by the Dairy Board and USDA); and (5) not use program funds for the purpose of influencing governmental policy or action (7 CFR §1150.153).

The aggregate revenue from the assessment directed to the Qualified Programs in 2013 was \$206 million and approximately \$212 in 2014 (approximately 10 cents of the 15-cent producer assessment and 2.5 cents of the importer 7.5-cent assessment).

Some Qualified Programs participate in cooperative efforts conducted and coordinated by other Qualified Programs and/or other organizations such as DMI, the Dairy Board, and UDIA. Their goal in combining funding and coordinating projects is for more effective and efficient management of promotion dollars through larger, broad-based projects. For example, to support the unified marketing plan, UDIA coordinates nationally through DMI the programs and resources of 19 federation members and their affiliated units.

**2013 Aggregate Income and Expenditure Data Reported to USDA by
Qualified Programs (Thousands)**

Income

Carryover from Previous Year ¹	\$76,680
Producer Remittances	206,052
Transfers from Other Qualified Programs ²	62,430
Transfers to Other Qualified Programs	(58,313)
Other Income	<u>5,666</u>
Total Adjusted Annual Income	<u>\$292,515</u>

Expenditures

General and Administrative		\$11,279
Fluid Milk Advertising and Promotion	\$17,978	
Cheese Advertising and Promotion	31,812	
Butter Advertising and Promotion	4,765	
Frozen Dairy Products Advertising and Promotion	6,624	
Other ³ Advertising and Promotion	<u>6,054</u>	
Advertising and Promotion Subtotal		67,235
Unified Marketing Plan ⁴		88,990
Dairy Foods and Nutrition Research		7,507
Public and Industry Communications		17,441
Nutrition Education		20,242
Market and Economic Research		1,697
Other		<u>4,486</u>
Total Annual Expenditures		<u>\$218,877</u>

Total Available for Future Year Programs **\$73,640**

¹ Differences can occur because of audit adjustments and varying accounting periods.

² Payments transferred between Qualified Programs differ due to different accounting methods and accounting periods.

³ Other includes "Real Seal," holiday, multi-product, calcium, foodservice, product donation at State fairs, and other promotional activities.

⁴ Unified Marketing Plan: Reported local spending by United Dairy Industry Association units participating in the Dairy Management Inc. unified marketing plan to fund national implementation programs.

Source: Data reported by qualified dairy product promotion, research, and nutrition education programs.

**2014 Aggregate Income and Expenditure Data Reported to USDA by
Qualified Programs (Thousands)**

Income

Carryover from Previous Year ¹	\$74,315
Producer Remittances	212,457
Transfers from Other Qualified Programs ²	62,931
Transfers to Other Qualified Programs	(60,243)
Other Income	<u>3,711</u>
Total Adjusted Annual Income	\$293,171

Expenditures

General and Administrative	\$10,136
Milk Advertising and Promotion	\$16,461
Cheese Advertising and Promotion	26,120
Butter Advertising and Promotion	6,288
Frozen Dairy Products Advertising and Promotion	8,644
Other ³ Advertising and Promotion	<u>3,919</u>
Advertising and Promotion Subtotal	61,432
Unified Marketing Plan ³	77,512
Dairy Foods and Nutrition Research	5,713
Public and Industry Communications	31,741
Nutrition Education	18,800
Market and Economic Research	1,748
Other	<u>4,266</u>
Total Annual Expenditures	\$211,348

Total Available for Future Year Programs **\$79,618**

¹ Differences can occur because of audit adjustments and varying accounting periods.

² Payments transferred between Qualified Programs differ due to different accounting methods and accounting periods.

³ Other includes "Real Seal," holiday, multi-product, calcium, foodservice, product donation at State fairs, and other promotional activities.

⁴ Unified Marketing Plan: Reported local spending by United Dairy Industry Association units participating in the Dairy Management Inc. Unified Marketing Plan to fund national implementation programs.

Source: Data reported by qualified dairy product promotion, research, and nutrition education programs

**LIST OF QUALIFIED STATE, REGIONAL, OR IMPORTER DAIRY PRODUCT
PROMOTION, RESEARCH, OR NUTRITION EDUCATION PROGRAMS
PURSUANT TO SECTION 1150.153
OF THE DAIRY PROMOTION AND RESEARCH ORDER**

ALABAMA

American Dairy Association of Alabama, Inc. c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

ARIZONA

United Dairymen of Arizona
510 S. 52nd Street #101, Tempe, AZ 85281

CALIFORNIA

California Milk Producers Advisory Board
400 Oyster Point Boulevard, Suite 211, South San Francisco, CA 94080

California Manufacturing Milk Producers Advisory Board
3800 Cornucopia Way, Suite D, Modesto, CA 95358-9492

Dairy Council of California
1101 National Drive, Suite B, Sacramento, CA 95834-1945

COLORADO

Western Dairy Association
12000 N. Washington Street, Suite 175, Thornton, CO 80241

CONNECTICUT

Connecticut Milk Promotion Board
c/o Connecticut Department of Agriculture
165 Capitol Avenue, Hartford, CT 06106

FLORIDA

Florida Dairy Farmers
1003 Orienta Avenue, Altamonte Springs, FL 32701

GEORGIA

Georgia Agricultural Commodity Commission for Milk
c/o Georgia Department of Agriculture
19 Martin Luther King Jr. Drive, SW, Room 328, Atlanta, GA 30334

Southeast United Dairy Industry Association, Inc. (SUDIA)
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

American Dairy Association of Georgia, Inc. c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

Dairy Food Nutrition Council c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

IDAHO

Idaho Dairy Products Commission
743 North Touchmark Avenue, Meridian, ID 83642

ILLINOIS

Illinois Milk Promotion Board
1701 Towanda Avenue, Bloomington, IL 61701

INDIANA

Indiana Dairy Industry Development Board
9360 Castlegate Drive, Indianapolis, IN 46256

Milk Promotion Services of Indiana, Inc.
9360 Castlegate Drive, Indianapolis, IN 46256

KANSAS

Kansas Dairy Commission
2545 294th Road, Muscotah, KS 66058

KENTUCKY

American Dairy Association of Kentucky, Inc. c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

LOUISIANA

Louisiana Dairy Industry Promotion Board
c/o Louisiana Department of Agriculture and Forestry
P.O. Box 3334, Baton Rouge, LA 70821-3334

MAINE

Maine Dairy and Nutrition Council
333 Cony Road, Augusta, ME 04330

Maine Dairy Promotion Board
333 Cony Road, Augusta, ME 04330

MASSACHUSETTS

Massachusetts Dairy Promotions Board
251 Causeway Street, Suite 500, Boston, MA 02114

New England Dairy and Food Council, Inc.
1034 Commonwealth Avenue, Boston, MA 02215

New England Dairy Promotion Board
1034 Commonwealth Avenue, Boston, MA 02215

MICHIGAN

American Dairy Association of Michigan
2163 Jolly Road, Okemos, MI 48864

Dairy Council of Michigan, Inc.
2163 Jolly Road, Okemos, MI 48864

Michigan Dairy Market Program
P.O. Box 8002, Novi, MI 48376-8002

MINNESOTA

Midwest Dairy Association
2015 Rice Street, St. Paul, MN 55113

Midwest Dairy Council
2015 Rice Street, St. Paul, MN 55113

Minnesota Dairy Research & Promotion Council
2015 Rice Street, St. Paul, MN 55113

MISSISSIPPI

American Dairy Association of Mississippi, Inc. c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

MISSOURI

Dairy Promotion, Inc. & Promotion Services, Inc.
10220 NW Ambassador Drive, Kansas City, MO 64190-9700

St. Louis District Dairy Council
325 North Kirkwood Road, Suite 222, St. Louis, MO 63122

NEBRASKA

Nebraska Dairy Industry Development Board
2015 Rice Street, St. Paul, MN 55113

NEVADA

Nevada Farm Bureau Dairy Producers Committee
2165 Green Vista Drive, Suite 205, Sparks, NV 89431

NEW HAMPSHIRE

Granite State Dairy Promotion
c/o New Hampshire Department of Agriculture
25 Capitol Street, Box 2042, Concord, NH 03302-2042

NEW JERSEY

New Jersey Dairy Industry Advisory Council
c/o New Jersey Department of Agriculture
P.O. Box 330, Trenton, NJ 08625-0330

NEW YORK

American Dairy Association & Dairy Council, Inc.
100 Elwood Davis Road, North Syracuse, NY 13212

Milk for Health on the Niagara Frontier, Inc.
4185 Seneca Street, West Seneca, NY 14224

New York State Department of Agriculture,
Division of Milk Control and Dairy Services
10 B Airline Drive, Albany, NY 12235-0001

Rochester Health Foundation, Inc.
c/o American Dairy Association & Dairy Council, Inc.
100 Elwood Davis Road, North Syracuse, NY 13212

NORTH CAROLINA

American Dairy Association of North Carolina c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

NORTH DAKOTA

North Dakota Dairy Promotion Commission
c/o Midwest Dairy Association
2015 Rice Street, St. Paul, MN 55113

OHIO

American Dairy Association Midwest
5950 Sharon Woods Boulevard, Columbus, OH 43229

OREGON

Oregon Dairy Products Commission
10505 SW Barbur Boulevard, Portland, OR 97219

PENNSYLVANIA

Allied Milk Producers' Cooperative, Inc.
1360 Eisenhower Boulevard, Johnstown, PA 15904-3307

Mid Atlantic Dairy Association
325 Chestnut Street, Suite 600, Philadelphia, PA 19106

Pennsylvania Dairy Promotion Program c/o Mid Atlantic Dairy Association
325 Chestnut Street, Suite 600, Philadelphia, PA 19106

PUERTO RICO, COMMONWEALTH OF

Milk Industry Development Fund of Puerto Rico
PO Box 360454, San Juan, PR
00936-0454

SOUTH CAROLINA

American Dairy Association of South Carolina c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

SOUTH DAKOTA

American Dairy Association of South Dakota
c/o Midwest Dairy Association
2015 Rice Street, St. Paul, MN 55113

TENNESSEE

American Dairy Association of Tennessee c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

Tennessee Dairy Promotion Committee c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

TEXAS

Dairy MAX, Inc.
2214 Paddock Way Drive, Suite 600, Grand Prairie, TX 75050

Southwest Dairy Museum, Inc.
P.O. Box 936, Sulphur Springs, TX 75483

UTAH

Dairy Council of Utah and Nevada
1213 East 2100 South, Salt Lake City, UT 84106

VERMONT

Vermont Dairy Promotion Council c/o Agency of Agriculture, Foods & Markets
116 State Street, Drawer 20, Montpelier, VT 05620-2901

VIRGINIA

American Dairy Association of Virginia, Inc. c/o SUDIA
5340 W. Fayetteville Road, Atlanta, GA 30349-5416

WASHINGTON

Washington State Dairy Council
4201 198th Street SW, Lynnwood, WA 98036-6751

Washington Dairy Products Commission
4201 198th Street SW, Lynnwood, WA 98036-6751

WISCONSIN

Wisconsin Milk Marketing Board, Inc.
8418 Excelsior Drive, Madison, WI 53717

QUALIFIED IMPORTER PROGRAMS

Cheese Importers Association of America (Importer)
204 E Street, NE, Washington, DC 20002

Global Dairy Platform (Importer)
10255 West Higgins, Suite 800, Rosemont, IL 60018

Wisconsin Milk Marketing Board, Inc. (Importer)
8418 Excelsior Drive, Madison, WI 53717