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Annotated Bibliography of Generic Commodity Promotion Research (revised)

by

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The National Institute For Commodity Promotion Research and Evaluation

The National Institute for Commodity Promotion Research and Evaluation was initially funded by a CSRS Special Grant in April 1994. The Institute is an offshoot of The Committee on Commodity Promotion Research (NEC63). A component of the Land Grant committee structure to coordinate research in agriculture and related fields, NEC63 was established in 1985 to foster quality research and dialogue on the economics of commodity promotion.

The Institute's mission is to enhance the overall understanding of economic and policy issues associated with commodity promotion programs. An understanding of these issues is crucial to ensuring continued authorization for domestic checkoff programs and to fund export promotion programs. The Institute supports specific research projects and facilitates collaboration among administrators and researchers in government, universities, and commodity promotion organizations. Through its sponsored research and compilations of related research reports, the Institute serves as a centralized source of knowledge and information about commodity promotion economics.

The Institute is housed in the Department of Agricultural, Resource, and Managerial Economics at Cornell University in Ithaca, New York as a component of the Cornell Commodity Promotion Research Program.

Institute Objectives

- Support, coordinate, and conduct studies to identify key economic relationships and assess the impact of domestic and export commodity promotion programs on farmers, consumers, and the food industry.
- Develop and maintain comprehensive databases relating to commodity promotion research and evaluation.
- Facilitate the coordination of multi-commodity and multi-country research and evaluation efforts.
- Enhance both public and private policy maker's understanding of the economics of commodity promotion programs.
- Facilitate the development of new theory and research methodology.

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Introduction

The purpose of this publication is to present relevant scholarly work directly related to generic commodity advertising and promotion research and evaluation in an easy-to-use form for further study and research. Sources for the annotations include professional journals, books, university staff and working papers, and unpublished reports by commodity consulting firms. This report provides an update to an earlier annotated bibliography on commodity promotion evaluation done at Cornell (Hurst, S. and O.D. Forker (1991). "Annotated Bibliography of Generic Commodity Promotion Research (Revised)." *A.E. Res. 91-7*, Department of Agricultural Economics, Cornell University, Ithaca, NY. 48pp). The earlier report covered the period between 1961 and 1991, this report covers the period 1992-1996.

The listings are in alphabetical order by author with an index in the back according to commodity and/or subject matter. Articles are indexed according to the following categories: advertising theory, citrus products, fluid milk and dairy products, econometric methods, export promotion, fibers, fruits and nuts, general commodity promotion, grains and oilseeds, beef, eggs, poultry, fish, promotion other than media advertising, vegetables, horticultural products, wheat, branded advertising, and pork.

This bibliography was produced in order to create a base for continuing economic research on how generic advertising influences consumer behavior. It is hoped that this will be of interest to and help professionals in academia, government, and industry who are interested in and involved with economic analysis of commodity promotion programs.

------------ (1991). "USDA Market Development Programs." ***Horticultural Products Review, U.S. Department of Agriculture.*** **Foreign Agricultural Service, Washington, DC: The Service. (8-91): pgs 27-31.**
The USDA allocates money to trade organizations and private industries to promote their commodities in foreign markets. The organizations and industries use this money to augment their own funds for carrying out such activities as the production and airing of TV commercials, the design and printing of point-of-sale material, and the development of recipes in foreign languages using metric measurements. Together with trade liberalization and higher incomes in some target countries, these promotional dollars have helped the exportation of U.S. horticultural products to grow beyond that of any other commodity segment in recent years.

Ackerman, K.Z. and M.E. Smith (1990). "Agricultural Export Programs: Background for 1990 Farm Legislation." ***ERS Staff Report AGES 9033, U.S. Department of Agriculture.*** **Economic Research Service, Washington, DC: Commodity Economics Division.**
Lawmakers authorized several new export programs under the Food Security Act of 1985 in an attempt to increase agricultural exports. U.S. agricultural exports began to recover in fiscal 1987 and, in fiscal 1989, climbed to $39.6 billion, their highest level since 1981. Since 1986, U.S. agricultural export programs, a depreciating dollar, lower domestic commodity prices relative to world prices, and increased demand from importers have contributed to improved markets. Export programs help U.S. exporters meet subsidized competition, provide humanitarian relief, assist credit-seeking importers, and may help develop new overseas markets for U.S. agricultural products. Issues which could affect export programs in 1990 legislation include tightened U.S. and global grain stocks, potential budget exposure for increased loan guarantees, and the outcome of trade negotiations under the Uruguay Round of the General Agreement on Tariffs and Trade (GATT).

Ackerman, K.Z. (1993). "Export Promotion Programs Help U.S. Products Compete in World Markets." ***FoodReview, U.S. Department of Agriculture.*** **Economic Research Service, Washington, DC. 16(2): pgs 31-35.**
This paper provides an overview of U.S. export promotion programs designed to increase agricultural exports. The paper discusses a mix of strategies to promote U.S. products overseas, including trade servicing, technical assistance, and consumer promotions. The author also examines the Foreign Market Development Program, the Market Promotion Program, and Targeted Export Assistance Programs.

Ackerman, K.Z. (1994). "Market Development Programs Help Expand U.S. High-Value Agricultural Exports." ***FoodReview, U.S. Department of Agriculture.*** **Economic Research Service, Washington, DC. 17(3): pgs 23-27.**
This paper examines market development programs (such as the Market Promotion

Program (MPP)) and the effects such programs have on market opportunities for exporters. Also included are percentage breakdowns of market promotion funds between bulk and high-value product groupings; and between targeted consumers in East Asia and Western Europe. The paper raises many issues on the pros and cons of market development programs.

Anania, G., M. Bohman, and C.A. Carter (1992). "United States Export Subsidies in Wheat: Strategic Trade Policy or Expensive Beggar-Thy-Neighbor Tactic?" *American Journal of Agricultural Economics.* American Agricultural Economics Association. 74(3): pgs 534-545.
This paper examines the domestic and international impacts of the U.S. Export Enhancement Program (EEP) for wheat. EEP uses targeted in-kind subsidies to expand U.S. exports and was designed specifically to compete with subsidized exports from the European Community (EC). We argue the EEP cannot be welfare-improving for the U.S., even considering targeted export subsidy and determining its price, quantity, and budgetary effects. Empirical results show that no exporting country gains from EEP and that the intended loser, the EC, is only slightly harmed. We find the export subsidies generate only a small increase in U.S. wheat exports. The EEP is an expensive program: based on our estimates for 1988, government cost of additional wheat exports under the EEP reached $469 per metric ton.

Armbruster, W.J. and J.E. Lenz, editors (1992). "Commodity Promotion Policy in a Global Economy." *Proceedings of a Symposium, Arlington, Virginia (October 22-23).* Farm Foundation, Oak Brook, IL.
The symposium was organized to review the scope of commodity promotion programs, assess the state of knowledge about program impacts, identify critical evolving policy issues, and specify future research and educational needs.

Arnade, C. and D. Lee (1990). "Risk Aversion Through Non-Traditional Export Promotion Programs in Central America." *ERS Staff Report, AGE S9074, U.S. Department of Agriculture.* Economic Research Service, Washington, DC: Agriculture and Trade Analysis Division
This paper discusses the growing importance of policies by Central American countries to promote non-traditional agricultural exports. It demonstrates that these programs are rational if countries are risk-averse utility maximizers. It describes the characteristics that crops must have for utility maximizers to benefit from non-traditional export promotion programs. It also shows that the recent non-traditional vegetable and fruit exports of Central America can meet these requirements.

Bagwell, K. and G. Ramey (1994). "Advertising and Coordination." *Review of Economic Studies.* 61: pgs 153-172.
When market information such as price is difficult to communicate, consumers and firms may be unable to take advantage of mutually beneficial scale economies,

causing coordination failures to arise. Ostensibly, uninformative advertising expenditures can be used to eliminate coordination failures by allowing an efficient firm to communicate implicitly that it offers a low price. This provides a theoretical explanation for Benham's (1972) empirical association of the ability to advertise with lower prices and larger scale. Advertising becomes necessary for optimal coordination when the identity of the efficient firm is uncertain. An application to loss-leader pricing is developed.

Bailey, K.W. and J.P. Houck (1990). "A Dynamic Assessment of the Wheat Export Enhancement Program." *North Central Journal of Agricultural Economics.* Ohio State University, Columbus, OH: 12(2): pgs 319-332.
A major goal of the Export Enhancement Program (EEP) was to expand U.S. exports. This objective was empirically tested in this study for the case of wheat. An analytical approach, reflecting the impact of the EEP on global wheat trade, was developed and incorporated within a nonspatial equilibrium model of world wheat trade. The results suggest that the EEP expanded U.S. wheat exports 20 percent in 1986/87, but only 7 percent in 1987/88. Most of the actual expansion occurred in 1987/88 and was due to other factors.

Becker, G.S. and K.M. Murphy (1993). "A Simple Theory of Advertising as Good or Bad." *Quarterly Journal of Economics.* Vol. CVIII, pgs 941-964.
Our analysis treats advertisements and the goods advertised as complements in stable metautility functions and generates new results for advertising by building on, and extending, the general analysis of complements. By assimilating the theory of advertising into the theory of complements, we avoid the special approaches common in previous studies attempting to measure the effects of advertising. We also use this approach to evaluate advertising from a welfare perspective. Whether there is too much or too little advertising depends on several variables: the effects on consumer utility, the degree of competition in the market for advertised goods, the induced changes in prices and outputs of advertised goods, and whether advertising is sold to consumers.

Blisard, N. and J.R. Blaylock (1992). "A Double-Hurdle Approach to Advertising: The Case of Cheese." *Agribusiness.* 8(2): pgs 109-120.
This article uses a double-hurdle model to examine the demand for cheese. Essentially, this approach argues that the effects of advertising and other factors on product demand should be judged in terms of their influence on two separate decisions: the decision to participate in the market for cheese and the decision concerning how much to purchase. We find that generic advertising for natural cheese has been successful in inducing people into the cheese market but that it does not influence those already buying cheese to increase their purchases.

Blisard, W.N., T. Sun, and J. Blaylock (1991). "Effects of Advertising on the Demand for Cheese and Fluid Milk." ***ERS Staff Report AGES 9154, U.S. Department of Agriculture.*** **Economic Research Service, Washington, DC: Commodity Economics Division.**
An advertising campaign raised fluid milk sales by about 5,975.4 million pounds during September 1984-September 1990. Natural and processed cheese (consumed at home) sales rose by about 23 and 229 million pounds in the same period. An assessment of 15 cents per hundredweight of milk sold commercially, mandated by the Dairy and Tobacco Adjustment Act of 1983, funded the increase in advertising. The authors use econometric demand models to introduce variables that would offset or complement dairy-centered advertising. In both branded and generic advertising, changes in market price, income, and the availability of substitute goods are factors that influence the demand for natural and processed cheese.

Brenes, J.R., D.R. Henderson, and I.M. Sheldon (1992). "Effectiveness of Alternative Export Promotion Strategies for Branded Food Products." ***Journal of Food Distribution Research.*** **23(1): pgs 137-151.**
This study examines the impact on export sales of various promotional strategies for branded food products in foreign markets. It is an empirical analysis using data obtained from organizations that administer the High Value Export Incentive Program (HVEIP) for brand food products, part of the USDA's Targeted Export Assistance (TEA) program and its successor, the Marketing Assistance Program (MAP). To respect the proprietary nature of the data, the identity of individual firms and brand names has been deleted and products have been combined into two groups: 1) consumer ready and 2) intermediate. Econometric analysis is used to study the impacts of expenditures on television advertising and print media on export sales of commodities.

Capps, O. Jr. and J.D. Schmitz (1991). "Effect of Generic Advertising on the Demand for Fluid Milk: The Case of the Texas Market Order." ***Southern Journal of Agricultural Economics.*** **23(2): pgs 131-140.**
This analysis indicates that generic advertising expenditures, ceteris paribus, generated rightward shifts in demand for fluid milk in the Texas Market Order over the period January 1980 to September 1988. Generally, the results from this study are in agreement with previous research efforts which suggest that generic advertising can increase the demand for fluid milk. Importantly, in this analysis, the impacts of television and radio advertising have been effectively disentangled. Television advertising generates a response that wears off more quickly than radio advertising. Also, the long-run effect of radio advertising is about 1.75 times greater than the long-run effect of television advertising

Capps, O. Jr. and J.A. Lambregts (1991). "Assessing Effects of Prices and Advertising on Purchases of Finfish and Shellfish in a Local Market in Texas." ***Southern Journal of Agricultural Economics.*** **23(1): pgs 181-194.**
Estimates of demand parameters for disaggregate finfish and shellfish products were obtained using scanner data from a retail food firm in Houston. Demand for the various products was elastic (except for oysters); in general, cross-price effects play a statistically significant role in pounds sold per 1000 customers. Own-advertisement effects are important, but cross-advertisement effects are generally marginal. Seasonality is a key factor in purchases of most finfish and shellfish products.

Carman, H.F. and R.D. Green (1993). "Commodity Supply Response to a Producer-Financed Advertising Program: the California Avocado Industry." ***Agribusiness.*** **9(6): pgs 605-621**.
A simulation model of the California avocado industry is used to estimate the impact of a producer-funded generic advertising program on acreage and returns over time. Although returns from advertising can be quite favorable in the short-run, improved returns simulate increased plantings and the resulting production will erode advertising returns over time. California avocado producers, after over 30 years of actively promoting their product, appear to have real returns per acre similar to those that would have occurred without advertising but advertising has become a built-in cost.

Carman, H.F., R.D. Green, and G.J. Mandour (1995). "Commodity Advertising Pays...or Does It ? What It Takes to Keep Those Raisins Dancing." ***California Agriculture.*** **46(2): pgs 9-12.**
California's farmers collectively spend more than $100 million a year to promote their products. Here are answers to such question as: Where is the money spent? What are the public policy issues associated with government-sponsored generic commodity advertising? How successful are those campaigns? And finally, how can commodity groups improve their databases?

Chang, H.S. and H.W. Kinnucan (1992). "Measuring Exposure to Advertising: A Look at Gross Rating Points." ***Agribusiness.*** **8(5): pgs 413-423.**
This article evaluates the relative merits of advertising expenditures and gross rating points (GRPs) as alternative measures of advertising exposure. Theoretically, GRPs and appropriately deflated advertising expenditures should provide identical representations of exposure. This hypothesis was tested using Canadian butter advertising data for the period 1984-1989. Our statistical analysis suggested the level of dollar outlays for television advertising and the associated estimated GRPs are positively related; this, however, was not the case in several instances for period-to-period changes in the level of expenditures. Because the problems of measurement errors, quality variation, and aggregation over media are

shared by both data series, our tentative conclusion is GRPs are not necessarily superior to expenditures.

Chyc, K.M. and E.W. Goddard (1994). "Optimal Investment in Generic Advertising and Research: The Case of the Canadian Supply-Managed Egg Market." ***Agribusiness.*** **10(2): pgs 145-166.**
Cooperative producer organizations face the choice of investing producer dollars in a number of ways including basic research and advertising. An empirical model is specified for the Canadian supply-managed egg market to determine whether producers should invest in research, advertising, or both. Results suggest that without financial restrictions, producers should invest more in advertising than they currently do and should also invest significantly in basic research. For any commodity, the results will be dependent on price elasticities of supply and demand as well as measured responses to advertising and research.

Conboy, P., E.W. Goddard, and M. McCutcheon (1992). "Does it Matter to Advertising Investment Levels if Advertising is Considered a Fixed or a Variable Cost?" ***Working Paper 92/06.*** **University of Guelph, Ontario, Canada.**
Many organizations representing producer groups undertake generic advertising activities on behalf of their clients. These advertising activities are funded by producer levies per unit of production. Economic theory applied to optimizing investment in advertising for monopolists or cartels has assumed that advertising expenditure represents a fixed cost. If advertising levies represent a variable cost to individual producers, optimal investment levels will be different than if advertising represents a fixed cost. Empirical models of the Ontario and Quebec fluid milk sectors are specified, estimated, and validated. They are used to illustrate the implications of assuming advertising represents a fixed or variable cost. The empirical results suggest that if advertising is perceived by producers to be a variable cost, then in both provinces producer groups are likely to be overinvesting in advertising.

Cornick, J. and T.L. Cox (1994). "Endogenous Switching Systems: Issues, Options, and Application to the U.S. Dairy Sector." ***The Journal of Agricultural Economics Research.*** **44(4): pgs 28-39.**
This research explores the theoretical and applied issues associated with endogenous switching systems where market prices are bounded by policy instruments such as price supports. Options for estimation of model parameters and their associated standard errors are identified and explored. Application to the U.S. dairy sector illustrates the research trade-offs between conceptual rigor and empirical tractability that characterize these models. Results suggest that failure to explicitly address the endogenous switching context compromises the estimation results.

Duffy, P.A. and H.W. Kinnucan (1994). "Effectiveness of Price vs. Nonprice Promotion: The Case of Cotton." ***Proceedings from the Beltwide Cotton Conferences.*** **National Cotton Council of America, Memphis, TN. 1: pgs 417-419.**
A comparative static framework is used to analyze the effects of non-prize promotion and price subsidies for the export market. Results indicate that both tools can be effective in raising domestic cotton price and lowering government costs for cotton programs. As export demand becomes less elastic, nonprice promotion becomes the more effective tool.

Fairchild, G.F. and J.Y. Lee (1990). "Citrus Export Market Development and Maintenance." ***Journal of Food Distribution Research.*** **21(3): pgs 87-95.**
The marketing of agricultural commodities and food products has assumed an international dimension over the past two decades. Increased funding of export development programs by the federal government and commodity organizations suggests the need for improved understanding of U.S. export development programs and of the issues associated with export market development and maintenance. The lesson to be learned from the citrus industry experience is that unless the commodity or food product being promoted can be differentiated from other competitive products, or unless the product is priced lower than competitive products, the long-run effectiveness of export promotion programs will be limited.

Forker, O.D. (1990). "Advertising and Promotion Investment: What is the Right Level?" ***Staff Paper 90-20.*** **Cornell Agricultural Economics Department, Cornell University Agricultural Experiment Station, Ithaca, NY.**
Agricultural economists in both the United States and Canada have been trying to answer this complicated question for over 12 years. Although there is no simple answer, researchers generally agree that the "right level" of advertising investment is a function of the promotion program's objective. The actual level of advertising investment in 1987 totaled $490 million in 22 dairy-producing countries. The United States, Canada, Australia, and the United Kingdom have similar levels of promotion investment per unit of milk production. A review of economic studies indicates commodity advertising investment in the U.S. is probably less then optimum at its current level of around $145 million.

Forker, O.D. and H.W. Kinnucan (1991). "Econometric Measurement of Generic Advertising." International Dairy Federation, Brussels, Belgium. viii: 77 (9202).
The appropriate questions, such as how much to spend, where, and when, are much easier to ask than they are to answer. Producers' expenditures on generic advertising of agricultural commodities have grown dramatically in the past three decades, and even greater efforts are expected in the immediate future if more

precise answers can be found regarding the contribution of promotion to product sales. Given that the most recent ten years have generated the greatest efforts to answer these questions, and that the potential rewards for success have grown to such heights, the International Dairy Federation decided to commission a study of advertising effectiveness measurement in the developed world. This report is intended to illustrate what we know and what can be done by way of economic analysis to help organizations make better decisions about promotional expenditures.

Forker, O.D. and J.P. Nichols (1994). "Commodity Promotion Programs: Food, Agriculture, and Rural Policy into the Twenty-First Century." Westview Press, pgs 303-320.
Commodity promotion programs have evolved from small state or regional organizations funded through marketing orders or voluntary checkoffs to large national mandatory assessments. Success of these programs depends on federal enabling legislation and, in export markets, public funding. In the face of reduced federal fiscal resources, price supports and related deficiency payments will become even more limited. Commodity promotion programs, appropriately supported by federal legislation, provide a unique approach to assisting producers to integrate further into the marketing channel. But a system of analysis and accountability is necessary to make sure that the programs are in the public interest and in the best interest of the producers that fund the program.

Forker, O.D. and R.W. Ward (1993). "Commodity Checkoff Programs: A Self-Help Marketing Tool for the Nation's Farmers?" *Choices*. Fourth Quarter.
Almost $1 billion are spent annually on advertising and research efforts to expand or at least maintain the demand for U.S. commodities. These efforts are most often funded through direct producer assessment. Do these funds really provide commodity groups a self-help marketing tool to improve the market environment? Or do the assessments represent an unjust tax and a waste of farmers' monies?

Forker, O.D. and R.W. Ward (1993). <u>Commodity Advertising: The Economics and Measurement of Generic Programs</u>. New York, Lexington Books. (10) 294 pgs.
Over $750 million are spent annually to promote agricultural commodities. Here, for the first time, is a book that explores how that advertising money is raised and spent, the economic effectiveness of commodity promotions, and the differences between commodity and brand advertising. Forker and Ward evaluate the legislation affecting beef and dairy, and state programs such as Florida citrus, California raisins, and Washington apples. Case studies of many other commodity advertising and promotion campaigns, including cotton, wool, pork, fish, soybeans, honey, tomatoes, and potatoes, illustrate the strategies and techniques used to promote these products and to evaluate the effectiveness of the type and intensity

of their advertising.

Fuller, S., H. Bello, and O. Capps Jr. (1992). "Import Demand for U.S. Fresh Grapefruit: Effect of U.S. Promotion Programs and Trade Policies of Importing Nations." ***Southern Journal of Agricultural Economics.*** **24(1): pgs 251-260.**
This study estimates import demands for U.S. fresh grapefruit in Japan, France, Canada, and the Netherlands. Historically, these nations have imported about 90 percent of U.S. grapefruit exports. Four import demand functions are specified and estimated by joint generalized least squares based on the sample period 1969 through 1988. Results show that U.S. FOB price, per capita income of importing countries, exchange rates, price of substitutes, U.S. grapefruit promotion programs, and removal of trade restrictions have an important effect on U.S. fresh grapefruit exports. Analyses suggest that U.S. producers can effectively promote fresh grapefruit in foreign markets, and that trade concessions have an important influence on grapefruit exports.

Ghura, D. and R.A. Schrimper (1991). "Analysis of Newspaper Advertising of Fresh Apples in North Carolina." ***EIR 84.*** **North Carolina State University, Raleigh, NC: Department of Agricultural and Resource Economics.**
The purpose of this study is to examine the extent and type of advertising for fresh apples included in retail food ads in selected newspapers in North Carolina. Particular interest exists in identifying specific apple characteristics retailers selected to emphasize in their newspaper promotion. Also of interest is determining whether the type of information used by retailers to promote apples changes over time or differs in two cities in North Carolina. The results of this study are intended to provide background information to producers, retailers, and other parties interested in fresh apple promotion in North Carolina.

Goddard, E.W. and D.S. Taylor (1994). "Promotion in the Marketing Mix: What Works, Where and Why." ***Proceedings from the NEC-63 Conference.*** **Toronto, Ontario, Canada.**
This proceedings brings together a series of papers presented at the Canadian NEC-63 conference held in 1994. There was a panel discussion of promotion strategies, budgets, and allocation decisions consisting of representatives from academia, government, and industry. Some of the papers presented deal with topics ranging from the criteria used in selecting marketing activities, the allocation of budget between advertising and promotion, and the methods used to establish the effectiveness of promotional activities.

Goddard, E.W. and A.Tielu (1987). "The OMMB's Fluid Milk Advertising." ***Working Paper 87/14.*** **Department of Agricultural Economics and Business, University of Guelph, Ontario, Canada.**
Advertising is a marketing tool used to a significant degree by the Ontario Milk

Marketing Board. In this research, the effectiveness of the advertising campaign is evaluated using a time-series demand system model of the cold, nonalcoholic beverage market in Ontario. The results of the analysis suggest that increasing advertising expenditure on fluid milk would increase fluid milk revenue net of advertising costs to the dairy industry. Fluid milk demand is little affected by advertising of other goods in the market but does affect the demand for other beverages.

Goddard, E.W. and M.L. McCutcheon (1992). "Optimal Producer and Social Payoff from Generic Advertising--The Case of Fluid Milk in Ontario and Quebec." ***Working Paper 92/05.*** **University of Guelph, Ontario, Canada.**
The fluid milk sectors in Ontario and Quebec operate under a myriad of restrictions reflecting the current supply management system in place. Active advertising campaigns for fluid milk are undertaken by producer organizations in each province. In Ontario, the provincial government contributes to the provincial advertising campaign. To investigate implications of the advertising programs, econometric models of the Ontario and Quebec milk sectors are specified, estimated, and simulated. Given the measured responses to advertising, optimal advertising expenditure rules (for a monopolist) are applied to the Ontario and Quebec milk sectors to evaluate the implications of moving from actual to optimal advertising expenditure for consumer and producer welfare. An optimal advertising behavioral rule for the government is also developed and applied to determine the difference between optimal producer investment and optimal social investment in advertising.

Goddard, E.W. and M.L. McCutcheon (1993). "Optimal Producer Investment in Generic Advertising: The Case of Fluid Milk in Ontario and Quebec." ***Canadian Journal of Agricultural Economics.*** **41(3): pgs 329-347.**
The fluid milk sectors in Ontario and Quebec operate under a myriad of restrictions reflecting the current supply management system in place. Active advertising campaigns for fluid milk are undertaken by producer organizations in each province. In Ontario, the provincial government contributes to the provincial advertising campaign. To investigate the implications of the advertising programs, econometric models of the Ontario and Quebec milk sectors are specified, estimated, and simulated. Given the measured responses to advertising, optimal advertising expenditure rules are applied to the Ontario and Quebec milk sectors to evaluate the implications of moving from actual to optimal advertising expenditure for producer welfare.

Goddard, E.W. and P. Conboy (1993). "Optimal International Promotion Expenditure for Differentiated Products." ***Review of Marketing and Agricultural Economics.*** **61(1): pgs 49-62.**
The authors develop a model that could be used to determine the optimal generic advertising expenditures for exporting countries. They tested various hypotheses

about the role of advertising in an import market where goods are distinguished by country of origin. The export of U.S. beef to Japan was used as an empirical example. They note that with optimal advertising expenditure by a single exporter, in a generic sense, other exporters are also advantaged. When countries use advertising of their own country's product, other countries are disadvantaged by the program. As might be expected, the elasticities for the own-demand critically affect the optimal advertising expenditure level for a particular exporter. The concepts presented here should be of interest to any commodity organization heavily involved in export promotion activities.

Haley, S.L. (1990). "Measuring the Effectiveness of the Export Enhancement Program for Poultry." ***Agribusiness.*** **6(2): pgs 97-108.**
This report examines the economic effects of the Export Enhancement Program in the area of poultry meat for the year 1987. Total exports have increased 79 thousand metric tons due to the program. Model results indicate that every metric ton of poultry meat subsidized has resulted in an additional 0.83 metric ton of poultry meat exports at an average cost of $761/mt. Although U.S. poultry exports have increased, other poultry exporters (including the European Community) have not been significantly affected. U.S. producers have gained marginally, while U.S. consumers have lost an equivalent amount of welfare through higher domestic poultry prices.

Haley, S.L. (1992). "The U.S. Export Enhancement Program: Prospects Under the Food, Agriculture, Conservation, and Trade Act of 1990." ***Food Policy.*** **Oxford: Butterworth-Heinemann Limited. 17: pgs 129-140.**
According to provisions of the 1990 U.S. Farm Bill, the Export Enhancement Program (EEP) will continue to be an important instrument in promoting U.S. agricultural exports and in challenging subsidizing competitors, like the European Community (EC), with funding levels set at a minimum of $500 million annually through 1995. This research, whose purpose it is to evaluate the likely effectiveness of the wheat EEP through 1995, concludes that the EEP will have a significant effect on U.S. wheat exports, but will be subject to diminishing returns at levels higher than the annual minima. Also, the EC will only be marginally affected by the EEP as it can effectively counter the provision of the EEP at low cost

Halliburton, K. and S.R. Henneberry (1993). "U.S. Overseas Promotion Programs for Peanuts: An Examination of Trade and Market Development." ***Agribusiness.*** **9(6): pgs 569-583.**
The study gives an overview of the U.S. government market promotion programs for peanuts as well as the U.S. trading position in international peanut markets. FAS data on the Cooperator (CMDP), Targeted Export Assistance and Market Promotion Programs (TEA/MPP) were examined to identify how program expenditures have been allocated among regions and activities. Analysis shows

that during the 1986 through 1991 period, three quarters of CMDP, TEA, and MPP funding for peanuts was directed to the European Community, the largest U.S. peanut export market. Moreover, branded consumer promotion has accounted for a large percentage of program expenditures worldwide.

Halliburton, K. and S.R. Henneberry (1993). "Federal Export Promotion and International Trade of U.S. Red Meats." ***Journal of Agribusiness.*** **11(1): pgs 1-23.**
The U.S. government's export promotion programs for red meats and the U.S. trading situation for red meats are reviewed. The Cooperator Market Development Program (CMDP), Targeted Export Assistance (TEA), and Market Promotion Programs (MPP) are examined with respect to expenditures for activities and regions. While generic consumer promotions accounted for the largest percentage of funding for activities, more than half of CMDP expenditures and roughly three quarters of TEA/MPP expenditures for red meats between 1986 and 1991 were allocated to Pacific Rim markets. Japan, the largest U.S. export market, received the majority of regional funding during the period.

Halliburton, K. and S.R. Henneberry (1995). "A Comparative Analysis of Export Promotion Programs for U.S. Wheat and Red Meats." ***Agribusiness.*** **11(3): pgs 207-221.**
Comparison of the U.S. government's nonprice promotion programs for wheat and red meat exports reveals fundamental differences in trade and market development strategies for bulk versus value-added products. While the majority of wheat promotions have consisted of trade servicing and technical assistance activities in a variety of lesser developed countries, red meat promotions have primarily taken a generic consumer approach, focusing on only a relatively small number of higher developed countries. The timing of this analysis is critical, given that the survival of the promotion programs depends on pending reauthorization under the 1995 Farm Bill.

Henneberry, S.R., K.Z. Ackerman, and T. Eshleman (1992). "U.S. Overseas Market Promotion: An Overview of Nonprice Programs and Expenditures." ***Agribusiness.*** **8(1): pgs 57-78.**
This study gives an overview of the U.S. government nonprice export promotion programs. FAS data on the Cooperator and Targeted Export Assistance (TEA) Programs were examined to identify how program expenditures have been allocated among activities, commodities, and regions. Analysis shows that while a significant portion of the TEA funds have been spent in highly developed countries, Cooperator Program promotions have been conducted worldwide. Traditional commodities (grains and oilseeds) received 55 percent of Cooperator funds, and horticultural products received 53 percent of the TEA allocations during the 1986 through 1988 period. The majority of TEA promotional activities have been

consumer-oriented.

Henneberry, S. R. (1992). "Overseas Market Promotion Programs for U.S. Wheat." *Current Farm Economics*. Department of Agricultural Economics, Agricultural Experiment Station, Oklahoma State University: Division of Agricultural Sciences and Natural Resources. 65(3): pgs 15-24.
Historically, export markets have been an important outlet for U.S. wheat, accounting for 60 to 80 percent of the total wheat production. Since Oklahoma wheat accounts for about 10 percent of U.S. wheat exports, declines affect Oklahoma's economy (Henneberry and Sanders). Factors such as the appreciation of the dollar, recession in the world economy, high domestic U.S. support prices, and restrictive import policies in major U.S. markets have contributed to the decline of U.S. market share in international markets. To promote exports of U.S. wheat, the Foreign Agricultural Service (FAS) of the U.S. Department of Agriculture has operated several programs. The objective of this article is to examine nonprice export promotion programs for wheat. Data for the period 1986 to 1991 will be used to illustrate how funds have been allocated among types of marketing activities and export markets.

Ippolito, P.M. and A.D. Mathios (1990). "Information, Advertising, and Health Choices: A Study of the Cereal Market." *RAND Journal of Economics*. Vol. 21, No. 3: pgs 459-479.
This article examines the effects of information on consumer and producer behavior by focusing on the ready-to-eat cereal market. Although cereal producers were initially prohibited from advertising health benefits, the regulatory ban against producer advertising was lifted during the period of this study. Our results indicate that consumers changed their behavior once informed of the health benefits and that advertising was an important source of information once the ban was lifted. Government and general information sources had limited impact on fiber cereal choices in the years prior to the advertising. Analysis of individual food consumption data indicates that theories on information acquisition are important in explaining who responds most quickly to new information; household and individual characteristics that reflect costs of acquiring information, ability to process information, and valuation of health are all important determinants of fiber cereal choices.

Ippolito, P.M. and A.D. Mathios (1995). "Information and Advertising: The Case of Fat Consumption in the United States." The American Economic Review. Vol. 85, No. 2, May 1995, pgs 91-95.
Specifically, this study examines changes in fat and saturated fat consumption in the United States as information spread connecting lipids to heart disease and cancer risks. The study examines changes in consumption during two regulatory regimes; the years 1977-1985, when government and general information sources

continued their efforts to educate the public about the links between fats and disease risks; and the years 1985-1990. Comparison of these two periods allows us to provide evidence on whether and how consumers reacted to the general flow of information prior to 1985, and whether advertising appears to have added information to the market or, as many critics believe, provided deceptive or sufficiently incomplete information to undermine public education efforts.

Jensen, H.H. and J.R. Schroeter (1992). "Television Advertising and Beef Demand: An Econometric Analysis of "Split-Cable" Household Panel Scanner Data." ***Canadian Journal of Agricultural Economics.*** **40: pgs 271-294.**
The Beef Promotion and Research Act of 1985 led to significant increases in the generic promotion of beef in the United States. Widely familiar television advertising campaigns, distributed via national television networks, have been among the most visible outgrowths of this vigorous promotional effort. This study reports the results of econometric analysis of fresh beef consumption data for households participating in a controlled, experimental investigation of television advertising's effects on beef demand. While factors such as price, income, and household demographics are shown to be significant determinants of fresh beef purchases, the advertising campaigns apparently did not increase, and may even have decreased, the panelists' demand for beef.

Kaiser, H.M., O.D. Forker, J.E. Lenz, and C.H. Sun. "Evaluating Generic Dairy Advertising Impacts on Retail, Wholesale, and Farm Milk Markets." ***The Journal of Agricultural Economics Research.*** **44(4): pgs 3-18.**
This article develops a dynamic econometric model of the national dairy industry to simulate the impacts of generic advertising on the demand for milk and dairy products, farm and consumer prices, and producer welfare. Two advertising scenarios are analyzed: (1) a historic scenario, and (2) a pre-National Dairy Promotion and Research Board (NDPRB) scenario, where generic advertising expenditures are held constant at their quarterly levels during the year prior to the NDPRB's inception. The results indicate that the program has been effective in raising farm prices, increasing dairy product demand, and reducing cheese and butter purchases by the government

Kaiser, H.M. and O.D. Forker (1993). "Analysis of Generic Dairy Advertising Scenarios on Retail, Wholesale, and Farm Milk Markets." iv: 48.
An econometric model of the United States dairy industry is used to simulate the economic impact of alternative strategies in the generic advertising of dairy products. Advertising programs for fluid milk, cheese, and butter are considered. The historic quarterly advertising expenditure levels experienced during the period October 1984 through December 1990 are used as a basis of comparison. A national model enables the analyst to simultaneously estimate the impact of changes in advertising expenditures on price and volume of sales at retail,

wholesale, and farm levels of trade. The impact on government purchases can also be estimated. The simulations indicate that a reallocation toward cheese or butter will result in decreases. This simulation process using an industry model can be used to estimate the economic impact of a large number of different expenditure strategies.

Kaiser, H.M. (1995). "An Analysis of Generic Dairy Promotion in the United States." Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY.
A model of the U.S. dairy industry was developed to evaluate the economic impact of generic advertising efforts on the farm, wholesale, and retail segments of the dairy industry. The model divides the dairy industry into retail, wholesale, and farm sectors, and includes the following products: fluid milk, cheese, butter, and frozen products. The impact of advertising is captured in the model by inclusion of generic expenditure levels from Leading National Advertisers (LNA) in the retail demand functions. The original model was estimated with national quarterly data from 1975 through 1990. Under this objective, we plan to update the model on an annual, or bi-annual basis. The model was used to investigate the market impacts of three sets of generic advertising scenarios on demand for milk and dairy products, farm and consumer prices, and producer welfare: (1) market conditions with and without the National Dairy Promotion and Research Board (NDPRB), (2) total generic expenditure levels varied from 5 percent to 200 percent of their historical values, and (3) advertising revenue reallocated among fluid milk, cheese, and butter.

Kaiser, H.M., H.W. Kinnucan, and J.L. Ferrero, editors (1995). "New Methodologies for Commodity Promotion Economics." ***Proceedings from the NEC-63 Conference, Sacramento, California.*** **The Research Committee on Commodity Promotion (NEC-63) and The National Institute for Commodity Promotion Research and Evaluation.**
On October 5 and 6, 1995, NEC-63, (with the California Agricultural Issues Forum), hosted a conference entitled "Evaluation of Mandated Promotion Programs." There were two main purposes of the conference: 1) to examine issues and case studies regarding the economic and legal implications of mandatory promotion programs, and 2) to examine new methodologies for economic evaluation of commodity promotion. This proceedings focuses on the second day of the conference, which was devoted to exploring new methodologies for economic evaluation.

Kaiser, H.M. and J.C. Reberte (1995). "Impact of Generic Fluid Milk Advertising on Whole, Lowfat, and Skim Milk Demand." Department of Agricultural, Resource, and Managerial Economics, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY.
The purpose of this study was to determine whether there is a statistical difference in sales responsiveness to advertising among whole, lowfat, and skim milk

consumers. A case study for New York City, which uses monthly time series demand data from 1986 through 1992, is presented. Separate per capita demand functions were estimated for whole, lowfat, and skim milk, retail price of orange juice, per capita income, and a health index representing consumer concerns about fat in one's diet. The results suggest that the current message of the fluid milk advertising campaign in New York City is explicitly influencing actual and potential whole and lowfat milk drinkers rather than skim milk consumers. It would be useful to apply this analytical approach to other markets to determine whether similar conclusions might hold, or whether the New York City market is unique in its response to generic fluid milk advertising.

Kinnucan, H.W., H.S. Chang, and M. Venkateswaran (1993). "Generic Advertising Wearout." *Review of Marketing and Agricultural Economics.* 61(3): pgs 401-416.
Advertising wearout, defined as the declining effectiveness of a commercial or campaign associated with increased exposure, is examined from a generic advertising perspective. Generic advertising campaigns of the type typically undertaken by agricultural commodity groups differ from branded advertising in that the former seek to increase aggregate demand for a product category (e.g. beef, milk, wool) rather than the market share of a particular brand within a category. A major hypothesis addressed in this research is whether generic campaigns are subject to the same generation-satiation-decay cycles found for the more typical brand advertising campaigns. The hypothesis is examined by estimating a time-varying parameter model using data from the first fourteen years of advertising campaign for fluid milk. Results suggest that the cycles predicted by wearout theory do exist in the case of specific generic thematic appeals. However, other phenomenon, such as a "learning curve" on the part of campaign managers, may be more important in explaining overall changes in effectiveness of generic advertising campaigns over time

Kinnucan, H.W., O.D. Forker, J.P. Nichols, and R.W. Ward (1993). "Research and Marketing Issues Facing Commodity Promotion Programs." The Food and Agricultural Marketing Consortium (1).
Export promotion in the United States is funded in part by the federal government. Domestic generic promotion is funded by producer or processor checkoff money. The authors discuss five research issues surrounding domestic commodity promotion programs: 1) the mutual cancellation hypothesis, 2) mandatory versus voluntary funding, 3) optimal assessment level, 4) economic effectiveness and 5) program management. For export promotion, the authors discuss four issues: 1) the efficacy of price versus nonprice promotions, 2) the duration of government involvement, 3) program performance and 4) welfare effects. Each of these issues is discussed in detail. Policy recommendations are made to deal with each one.

Kinnucan, H.W., J.E. Lenz, and C.R. Clary (1995). "Economic Analysis of Meat Promotion." ***Proceedings from the NEC-63 Conference, Denver Colorado.*** **The Research Committee on Commodity Promotion, The National Institute for Commodity Promotion, Research and Evaluation.**
The purpose of this volume is to shed light on some of the more thorny issues surrounding commodity promotion programs, of which uncontrolled supply response is but one. Meat markets are selected for special study in part because meat promotion represents a substantial investment of resources, but also because some very good research has been done on the economic impacts. These studies, augmented with case studies and commentary by researchers, provide insights into the workings of commodity promotion programs that should be of value to all.

Kinnucan, H.W. and M. Venkateswaran (1994). "Generic Advertising and the Structural Heterogeneity Hypothesis." ***Canadian Journal of Agricultural Economics.*** **42: pgs 381-396.**
This paper adduces and tests the hypothesis that generic advertising responses are dynamic, i.e., are subject to change over time due to changes in target audiences, managerial expertise, copy quality, or other time-related factors. Specifically, the authors consider the structural heterogeneity hypothesis from the perspective of three alternative econometric models that permit random and systematic time-varying response: the Prescott-Cooley model, the return-to-normality model, and the stochastic-trend model. Results showing the apparent declining effectiveness of the Ontario fluid milk campaign are consistent with wearout theory, and suggest that program managers may want to reassess marketing strategies to identify possible ways to improve performance. Given the importance of advertising elasticities in normative decision models and the growing evidence of structural heterogeneity, models that permit parameters to change over time should provide an improved basis for program assessment and resource allocation.

Kinnucan, H.W. and C.R. Clary (1995). "Brand Versus Generic Advertising: A Conceptual Framework with Application to Cheese." ***Agribusiness.*** **11(4): pgs 355-370.**
Economic research measures the existence of advertising effects, but provides little insight into the mechanisms responsible for the observed responses. Drawing chiefly from constructs gleaned from the psychology and marketing literatures, an "inference-based" conceptual model is posited that elucidates the differing roles of generic and brand advertising in a consumer-choice setting. The model's key hypotheses, recursivity and complementarity, are tested with consumer awareness data on cheese advertising.

Kinnucan, H.W. and E.T. Belleza (1995). "Price and Quantity Effects of Canada's Dairy Advertising Programs." *Agricultural and Resource Economics Review.* 24(2): pgs 199-210.
An equilibrium-displacement model is combined with econometric estimates of key model parameters to identify the impacts of Canada's dairy advertising programs on prices and quantity. Results suggest increased advertising of fluid milk enhances the farm value of milk but has minimal effect on government costs of the dairy price-support program. Owing to government intervention in the butter market, increased butter advertising has no effect on the farm value of milk, at least in the short-run, but is highly effective at reducing government costs. Advertising is most effective, ceteris paribus, in markets where retail demand and wholesale supply for the specific dairy product are relatively price inelastic.

Lee, J.Y. and M.G. Brown (1992). "Lag Structures in Commodity Advertising Research." *Agribusiness.* 8(2): pgs 143-154.
This article examines basic assumptions about the lag structure of advertising. Evidence suggests for frequently consumed commodities, the lag structure is probably a monotonic decreasing function. Confusion may exist over what advertising variables to analyze and what shape the lag structure should take. Cumulative structures need to be differentiated from decay structures.

Lenz, J.E. (1995) *NICPRE Quarterly*, various volumes
The *NICPRE Quarterly*, as its name indicates, is a quarterly publication dealing primarily with evaluation of commodity promotion programs and other related issues. Past issues have included articles on various topics including: the beef program, methods of evaluation research, legal challenges of producers in the beef program, cotton export programs, and the California Almond program. Each issue also features a manager's viewpoint column and the director's corner, reserved for the current director of NICPRE.

Lenz, J.E. and O.D. Forker (1993). "Generic Advertising as a Nonprice Marketing Strategy," in <u>Competitive Strategy Analysis in the Ford System</u>, R.W. Cotterill (editor). Westview Press. : pgs 137-154.
The purpose of this paper is to describe generic commodity advertising, and examine its potentially important role as a nonprice marketing strategy for farmers. This will be done, after an introductory review of the status of generic commodity promotion in the U.S., by discussing alternative views of advertising's value to society, presenting the theoretical underpinnings of generic advertising, and summarizing the empirical evidence concerning the impacts of generic advertising.

Lenz, J.E. and O.D. Forker (1993). "Will You Vote to Dump the Dairy Board?" *Hoard's Dairyman, The National Dairy Farm Magazine.*
This article discusses issues associated with the national referendum on whether

or not to continue dairy farmer funding of the National Dairy Promotion and Research Board (NDPRB). The authors discuss the funding of the NDPRB and what would occur if farmers voted to get rid of this program in terms of funding level by state through voluntary programs. The authors also review the results of previous economic research that looked at the effectiveness of these programs in terms of raising dairy farmer prices and incomes.

Levy, A.S. and R.C. Stokes (1987). "Effects of a Health Promotion Advertising Campaign on Sales of Ready-to-Eat Cereals." Public Health Reports. Vol. 102, No. 4, July-August, pgs 398-403.
The objective of this study is to determine how the sales of various segments of the high fiber and nonhigh fiber, ready-to-eat (RTE) cereal market were influenced by a health message advertising campaign about the possible benefits of a high fiber, low fat diet for preventing some types of cancer. Estimates of market share for the various classes of RTE cereal products were obtained weekly for each store during a period of 64 weeks, beginning 16 weeks before the start of the campaign.

Liu, D.J., H.M. Kaiser, O.D. Forker, and T.D. Mount (1990). "An Economic Analysis of the U.S. Generic Dairy Advertising Program Using an Industry Model." ***Northeastern Journal of Agricultural Resource Economics.*** **19(1): pgs 37-48.**
The market impacts of generic dairy advertising are assessed using an industry model which encompasses supply and demand conditions at the retail, wholesale, and farm levels, and government intervention under the dairy price support program. The estimated model is used to simulate price and quantity values for four advertising scenarios: 1) no advertising, 2) historical fluid advertising, 3) historical manufactured advertising, and 4) historical fluid and manufactured advertising. Compared to previous studies, the dairy industry model provides additional insights into the way generic dairy advertising influences prices and quantities at the retail, wholesale, and farm levels.

Liu, D.J., C.H. Sun, and H.M. Kaiser (1995). "Estimating Market Conduct under Government Price Intervention: The Case of the U.S. Dairy Industry." ***Journal of Agricultural and Resource Economics.*** **(Forthcoming)**
The degree of market power exercised by fluid and manufactured processors in the U.S. dairy industry is estimated. Appelbaum's quantity-setting conjectural variation approach is cast into a switching regime framework to account for the two market regimes created by the existence of the dairy price support program: a) government supported regime (market price is at the support price) and b) market equilibrium regime is above the support price. The model is also used to test whether government price intervention has a pro-competitive or anti-competitive influence on market conduct.

McClure, S. (1995). "MPP Spells Success for U.S. Exporters." ***AgExporter.*** **United States Department of Agriculture, Foreign Agricultural Service. 7(6): pgs 15-19.**
Companies and trade groups throughout the United States benefit from the USDA's Market Promotion Program (MPP) support and export expansion activities. A few examples help point out the diversity of the projects and their far-reaching impact on the U.S. economy.

McCutcheon, M.L. and E. Goddard (1991). "Optimal Producer and Social Payoff from Generic Advertising: The Case of the Canadian Supply-Managed Egg Sector." ***Canadian Journal of Agricultural Economics.*** **40: pgs 1-24.**
The Canadian egg industry operates under a system of supply management where imports and production of eggs are restricted to ensure that producers achieve a price for their eggs that covers costs of production. Over the late 1970s and early 1980s, the egg industry in Canada had faced declining demand due in part to health and nutritional concerns about cholesterol. An active advertising campaign has been undertaken in Canada by the Canadian Egg Marketing Agency to address the problem of declining demand. To investigate the implications of the advertising program, an econometric model of the Canadian egg sector is specified, estimated, and simulated. An optimal advertising behavioral rule for the government is also developed and applied to determine the difference between optimal producer investment in advertising and optimal social investment in advertising.

McCutcheon, M.L. and E. Goddard (1991). "Optimal Social Payoff from Generic Advertising--The Case of the Canadian Supply Managed Egg Sector." ***Working Paper 91/10.*** **University of Guelph, Ontario, Canada.**
The objective of this study is to determine the social welfare implications of generic advertising. A case study of the Canadian egg sector is presented, subject to a supply management program. An econometric model of the Canadian egg market is estimated and used to simulate welfare effects of egg advertising on producers, consumers, and society. Optimal advertising expenditure levels and social welfare measures are found to be dependent on functional form selected for the advertising response function (demand equation). The results also indicate that advertising is effective in shifting the demand for eggs and providing both consumers and producers with additional welfare.

Mendelowitz, A. I. (1993). "Export Promotion: Initial Assessment of a Government-wide Strategic Plan." United States General Accounting Office (Testimony GAO/T-GGD-93-48).
The report is on the Trade Promotion Coordinating Committee's (TPCC) effort to develop a government-wide strategic plan for federal trade promotion programs mandated by the Export Enhancement Act of 1992. The act requires a plan, among other things, to establish priorities for federal trade promotion, including a strategy

for bringing federal trade promotion activities into line with the new priorities and for improving their coordination, and proposing a unified budget for federal trade promotion programs. To be successful, the TPCC effort from here on will require continued, sustained, high-level administration involvement and support. We would expect the administration to use a well-reasoned, analytical methodology for establishing federal trade promotion priorities and upon developing them, assess the usefulness of all federal trade promotion activities in light of those priorities. The unified budget should reflect the newly established federal trade promotion priorities and facilitate the process of reallocating funds within and among agencies.

Miles, H., S.J. Schwager, and J.E. Lenz (1995). "Perceptual Dimensions That Influence Consumers' Choices of Milk Type for Beverage Use." *Agribusiness.* 11 (3): pgs 263-272.
Factor analysis is used to identify two perceptual dimensions that influence consumers' choices among whole, lowfat, and skim milk. The first dimension combines satisfaction and versatility attributes, and the second combines health and nutrition attributes. The relative importance of the two dimensions differs greatly among users of the three milk types. Whole milk drinkers choose among milk types based primarily on satisfaction and versatility attributes. Skim milk drinkers choose based primarily on health and nutrition attributes. Lowfat milk drinkers use the satisfaction and versatility dimension to compare lowfat to skim milk and the health and nutrition dimension to compare lowfat to whole milk.

Miles, H., S.J. Schwager, and J.E. Lenz (1994). "Identifying a Reduced Set of Salient Attributes that Influence Consumers' Choice Among Whole, Lowfat, and Skim Milk for Beverage Use." *(R.B. 94-06).* Department of Agricultural, Resource, and Managerial Economics, New York State College of Agriculture and Life Sciences, Cornell University, Ithaca, NY. 32pgs.
Fishbein's Theory of Reasoned Action models behavior based on beliefs and evaluations on a small set of salient attributes. Two methods of reducing large sets of potentially salient attributes into a smaller set of salient attributes are proposed. The methods are based on expectancy valuation analysis and logistic regression analysis. When applied to consumer beliefs and evaluations on 59 attributes over three milk types (whole, lowfat, and skim milk), both methods identify reduced sets of attributes. The reduced attribute sets are then used to model whether or not respondents drink a particular milk type. Results indicate that the reduced models are statistically significant in explaining choice of milk type although there is some loss of information as compared to models with 59 attributes. Furthermore, the data indicate that statistically-imputed evaluation ratings differ from self-stated evaluation ratings.

Nichols, L.M. (1985). "Advertising and Economic Welfare." ***The American Economic Review.*** **75(1): pgs 213-218.**
This article concludes that the social welfare-maximizing amount of advertising does not depend upon the market structure of the advertised good. Instead, the market structure of the utility-generating characteristic is crucial. The profit-maximizing level of advertising maximizes social welfare if the characteristic productivity of the advertised good is raised as much (proportionately) by advertising at the margin, ditto the price of the advertised good. This could be inferred when the observed marginal impact of advertising on the quantity of sales is zero. A positive impact of advertising on sales can be taken as evidence of too little advertising -- consumers are willing to pay for more. An observed negative impact of advertising on sales suggests that advertising is being oversupplied.

Nicholls, J.R., M.J. Sargent, and B.I. Kloster (1992). "National Food Trade Promotion Organizations in the European Community." ***Food Policy*, Oxford: Butterworths-Heinemann Limited. 17(5): pgs 371-383.**
Although national food trade promotion organizations such as Food from Britain and Food from France (Sopexa) are now prominent in the EC food trade and have considerable budgets, they have been little researched. This article reports empirical investigations, through personal visits and interviews, to establish their objectives, activities, sources of budgets, target markets, and products promoted. These are considered in relation to the background literature, as in their legal position within the EC. Overall, their existence no longer seems to be in question and they are being left in peace provided they report regularly to the EC Commission. However, questions regarding their function and effectiveness remain.

Oustapassidis, K. and A. Vlachvei (1994). "An Analysis of Advertising, Concentration and Profitability in Food Manufacturing Industries: A Simultaneous Equation Approach, Structural Change in the European Food Industries." ***A concerted action project within the EU AAIR program.*** **European Union Agricultural and Agro-industrial Research (AAIR) Program.**
The conventional framework for cross-sectional studies of industrial organizations focuses on the hypothesized relations among structure, conduct, and performance (SCP). One primary criticism of much of the previous research has been the failure to account for the simultaneous nature of the SCP variables whose determinants have been estimated separately. While there has been a theoretical justification for the simultaneity problem in the interrelationships among advertising, concentration, and profitability, evidence for the existence of this problem in the manufacturing industries was inconclusive. The majority of the studies did not test this problem or found no differences between the simultaneous and the separate equation's results. This paper employs a more formal way to test the endogeneity problem in the case of food manufacturing industries. The Hausman-Wu test shows that concentration

estimates are more consistent with the hypothesized relationships than those obtained from the separate equations of the traditional approach.

Paarlberg, R.L. (1990). "The Mysterious Popularity of EEP." ***Choices Magazine*****. Food Farm Resource Issues, Ames, Iowa (Second Quarter): pgs 14-17.**
Arguments in support of the U.S. Farm Export Enhancement Program (EEP) are numerous but not persuasive. The EEP does more to displace U.S. commercial exports than it does to build exports. It transfers more benefit to foreigners than to U.S. farmers. And instead of working against the European Community in GATT, EEP is mostly working to antagonize Australia and Canada -- our natural allies against the EC in GATT. Political support for EEP is based on a widespread misperception that the program has played a major role in eliminating surplus stocks. This same misperception could someday make EEP politically unpopular, if stocks continue to fall and if markets become too tight.

Piggot, R.R., N.E. Piggot, and V.E. Wright (1995). "Approximating Farm-Level Returns to Incremental Advertising Expenditure: Methods and an Application to the Australian Meat Industry." ***American Journal of Agricultural Economics*****. 77(3): 497-511.**
Equilibrium displacement modeling is used to analyze the effects of incremental advertising expenditure by the Australian beef, lamb, and pork industries in domestic and export markets. The effects on prices, quantities traded, revenues, producer surpluses, and profits net of advertising expenditure are reported. Cross-commodity impacts of advertising are highlighted, including how one industry has to adjust its advertising expenditure to preserve profit levels in the face of increased advertising by another industry. The procedures used are useful when decisions about advertising expenditure need to be made quickly.

Powers, N., R.G. Heifner, and J.R. Blaylock (1990). "Generic Commodity Advertising and Promoting." ***Agriculture Information Bulletin*****. 664(61).**
Congress has authorized the collection of assessments from growers to support generic advertising, promotional, and research programs to expand producers' sales and earnings. Some state and federal fruit, vegetable, and milk marketing orders also provide for advertising and promotion. Many questions remain unanswered about the effects of these programs on sales and producer net returns, the distribution of returns between producers and marketers, and intercommodity competition.

Reed, A. J. (1992). "Expectations, Demand Shifts, and Milk Supply Response." ***The Journal of Agricultural Economics Research*****. U.S. Department of Agriculture Economics Research Service 44(1): pgs 11-21.**
The demand for dairy products shifted during the past decade to items with less fat.

This, along with a dairy surplus, has led to a generic advertising campaign by the industry. Consumers have responded by increasing dairy product purchases, while changes in the provisions of the dairy support program have altered government demands as well. This study compares effects of a shift in demand under two different assumptions regarding producer expectations.

Reberte, J.C., H.M. Kaiser, and J.E. Lenz (1995). "Generic Advertising Wearout: The Case of the New York City Fluid Milk Campaign." ***NICPRE Research Bulletin 95-3.*** **National Institute for Commodity Promotion Research and Evaluation, Department of Agricultural, Resource, and Managerial Economics, Cornell University, Ithaca, NY.**
This paper examines the question of whether the two major generic fluid milk advertising campaigns in New York City during the 1986-92 time period exhibited wearout. Estimates from a time-varying parameter model show that the impact of generic advertising on fluid milk sales evolved over each campaign following a bell-shaped pattern. Results also show that the first campaign was effective for twice as long as the second campaign and that it had a higher peak and average advertising elasticity. These findings may be reflecting long term generic milk advertising wearout in the New York City market.

Reynolds, A., A. McFaul, and E. Goddard (1990). "Testing for Causality Between Advertising Expenditures and the Demand for Dairy Products." ***Working Paper 90/04.*** **Department of Agricultural Economics and Business, University of Guelph, Ontario, Canada.**
Using quarterly data, the notion of Granger causality is employed to test the causal relationship existing between advertising and sales of cheese and butter. Results suggest that advertising expenditures influences sales of both commodities. However, sales appear to influence neither cheese nor butter advertising expenditures.

Reynolds, A. (1991). "Measuring Consumer Valuation of Advertising." Department of Agricultural Economics and Business, University of Guelph, Guelph, Ontario.
The study presents methods based on household production theory of measuring consumer welfare changes associated with changes in the level of advertising. Canadian fluid milk advertising data was employed to illustrate the method of obtaining, in the market goods space, an approximate measure of such welfare changes.

Roberts, I. and P. Whish-Wilson (1993). "The U.S. Export Enhancement Program and the Australian Wheat Industry." ***Agriculture and Resources Quarterly.*** **Canberra: Australian Bureau of Agricultural and Resource Economics. 5(2): pgs 228-241.**
Recent expansion of the U.S. Export Enhancement Program (EEP) has sparked renewed concern in the Australian wheat industry. The EEP is an export subsidy scheme applied selectively to U.S. exports to certain markets. Those markets now account for most U.S. wheat exports. Emphasis in this article is placed on two factors. The first is the impact of the EEP on U.S. exports. The second is whether the EEP reduces prices for Australian exports in EEP target markets relative to prices on other markets. The EEP increases average prices to U.S. producers above export prices and this leads to increases in U.S. exports, depressing world prices thereby adversely affecting returns for Australian wheat. The EEP also results in lower prices on targeted EEP markets than elsewhere.

Rogers, R.T. (1993). "Advertising Strategies by Agricultural Cooperatives in Branded Food Products 1967 to 1987." University of Connecticut Department of Agricultural and Resource Economics (21).
The authors present a study of the advertising expenditure levels of agricultural cooperatives and agricultural associations, comparing their advertising expenditure levels with those of other food (brand) advertisers. They conclude that the cooperatives' share has remained relatively constant over the past 20 years. For some commodities, the advertising by cooperative and associations represent 100 percent of all media advertising for the commodity, e.g. cranberries and prunes. For others cooperatives and associations represent over two-thirds of the total advertising expenditures, e.g. raisins, tree nuts, citrus fruit, honey, and butter.

Rogers, R. T. and R. J. Tokle (1993). "Advertising Expenditures in U.S. Manufacturing Industries, 1967 and 1982." ***Working Paper 34.*** **Department of Resource Economics, University of Massachusetts-Amherst, Department of Economics, Idaho State University, Pocatello.**
Economists interested in market behavior and performance have come to recognize that they cannot ignore advertising's effects on firm rivalry or consumer preferences. Although theoretical economists were late to incorporate advertising in their economic models, they still preceded many of those doing empirical work, as applied researchers were frustrated by the lack of advertising data. This paper examines the history and sources of advertising data from the Census, the IRS, and industry level advertising data to LNA data.

Seringhaus, F.H.R. and P.J. Rosson, (1991). <u>Export Development and Promotion: The Role of Public Organizations</u>. Kluwer Academic Publishers, Boston (XVIII): 364 pgs.
The interaction between public organizations and the companies they exist to serve

is the subject of this book. It contains the work of researchers from 11 different countries and tries to obtain the following objectives: to provide academic researchers with a current and comprehensive treatment of the role played by public organizations in export development and promotion; to expose professional readers to a view of their field of interest that might be broader and more critical than normal; and to expose students of exporting and international business to issues and perspectives on the topic of export support and public organizations, as well as to our present level of knowledge in this field.

Solomon, H. and H.W. Kinnucan (1993). "Effects of Nonprice Export Promotion: Some Evidence for Cotton." The Australian Agricultural Economics Society 37(1): pgs 1-15.
An Armington-type trade model is estimated to determine the effects of government-subsidized export promotion on the demand for U.S. cotton in the Pacific Rim. Results show a significant relationship between promotion expenditures and U.S. market share in four of the six countries examined. One of the two countries exhibiting a nonsignificant effect had very low promotion expenditures, suggesting that a minimal level of funding may be necessary to achieve a market response. The hypothesis that export promotion has a carryover period lasting beyond one year in general is supported by the data. The question of the economic impacts of export promotion on domestic producers and taxpayers must await additional research.

Sparks, A.L. (1992). "Impacts of the Targeted Export Assistance Program on U.S. Exports of U.S. Apples, U.S. Table Grapes, and California Citrus." *Journal of International Food & Agribusiness Marketing.* 4(2): pgs 1-22.
This paper presents an analysis of the impact of the Targeted Export Assistance Program on U.S. exports of U.S. apples, U.S. table grapes, and California citrus. A dummy variable as well as a demand forecasting technique are both used to analyze the data. Results are consistent across analyses. Both approaches indicate that the TEA program has been effective in promoting increased sales of all these commodities in Hong Kong and U.S. table grapes in Japan.

Stegeman, M. (1991). "Advertising in Competitive Markets." *The American Economic Review.* 81(1): pgs 210-223.
In this paper, small firms sell a homogeneous good to small consumers under conditions of free entry, but consumers receive price information only through firms' advertising. In equilibrium, every firm on the continuous price distribution buys less advertising than is socially optimal. The result is robust if firms advertise in just one medium. If readers of different advertising media are positively correlated, excess advertising can occur in media used exclusively to advertise discount prices. (JEL 024, 026).

Sun, T.Y. and J.R. Blaylock (1993). "An Evaluation of Fluid Milk and Cheese Advertising." *Technical Bulletin.* Economic Research Service, United States Department of Agriculture (1815): pgs 1-36.
Increased advertising expenditures raised milk sales nearly 5 percent, or by about 7,455 million pounds, during September 1984-September 1991. Sales of natural and processed cheese consumed at home rose by about 25 million pounds and 290 million pounds in the same period because of increased generic advertising. An assessment of 15 cents per hundredweight of milk sold commercially, mandated by the Dairy and Tobacco Adjustment Act of 1983, funded the increase in advertising. The authors use econometric demand models to control for variables that influence the demand for milk and cheese. These variables include generic and branded advertising, market prices, income, and demographic characteristics.

Suzuki, N., H.M. Kaiser, J.E. Lenz, and O.D. Forker (1993). "Evaluating U.S. Generic Milk Advertising Effectiveness Using an Imperfect Competition Model." *A.E. Res. 93-8.* Department of Agricultural Economics, Cornell University Agricultural Experiment Station, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY.
An analytical model to evaluate the effectiveness of U.S. generic milk advertising which incorporates the degree of market competition is presented. Unlike traditional perfect competition models, the imperfect competition model allows for simultaneous movement of both price and quantity with an endogenous fluid (Class I) price differential. The simulation results of the imperfect competition model are compared with the conventional exogenous fluid price differential model. It is shown that the conventional fixed fluid price differential model may understate the effectiveness of U.S. generic milk advertising in terms of returns to producers.

Suzuki, N., H.M. Kaiser, J.E. Lenz, K. Kobayashi, and O.D. Forker (1994). "Evaluating Generic Milk Promotion Effectiveness with an Imperfect Competition Model." *American Journal of Agricultural Economics.* 76(2): pgs 296-302.
A framework is proposed for incorporating the degree of market competition in evaluating milk promotion effectiveness. The imperfect competition model allows simultaneity in price and quantity with an endogenous fluid milk premium. The model's usefulness is demonstrated with Japanese generic milk promotion data. Results show that a conventional exogenous-price or exogenous-premium model will underestimate returns to milk promotion.

United States General Accounting Office (1994). "Federally Authorized Commodity Research and Promotion Programs." *Report to the Honorable Charlie Rose, House of Representatives (GAO/RCED-94-63).*
This report presents information on 1) the amount and use of checkoff funds, 2) the nature and extent of the Agricultural Marketing Service (AMS) oversight of these

programs, and 3) coordination by AMS of its oversight responsibilities with other USDA agencies. Eighteen checkoff boards were authorized in 1992 and 11 were active and had completed at least one full year of operations as of 1992. This report summarizes the basic characteristics of these programs. The 11 checkoff boards reviewed collected about $250 million in assessments in 1992. AMS has primary oversight responsibility for ensuring that the checkoff programs comply with the authorizing legislation.

Venkateswaran, M. and H.W. Kinnucan (1990). "Evaluation Fluid Milk Advertising in Ontario: The Importance of Functional Form." ***Canadian Journal of Agricultural Economics.*** **38: pgs 471-488.**
Generic advertising and promotion of milk and milk products have assumed the Ontario generic fluid milk advertising campaign and determines the functional form that best describes the response of sales to advertising. The research also investigates whether appropriate amounts are being spent on fluid milk advertising. Empirical results indicate the generic fluid milk advertising program has significantly increased milk consumption. The associated increase in farm income is estimated at $16 million, or $24 per additional media dollar invested. Results indicate that the computed optimal spending levels are sensitive to functional form selection, and the empirically preferred inverse form suggests fluid milk advertising expenditures can profitably be increased to 1.7 times the current rate.

Venkateswaran, M., H.W. Kinnucan, and H.S. Chang (1993). "Modeling Advertising Carryover in Fluid Milk: Comparison of Alternative Lag Specifications." ***Scientific Journal Paper (1-91939A).*** **Alabama Agricultural Experiment Station: pgs 11-19.**
The performance of restricted estimators such as Almon and Shiller in modeling advertising carryover is tested and compared to the unrestricted OLS estimator, using 1971-1988 monthly New York City fluid milk market data. Results indicate that in the absence of autocorrelation and multicollinearity among the lagged advertising variables, the unrestricted OLS estimator is still the preferred estimator, based on Mean Square Error and Root Mean Square Percent Error criteria. In this case, the Almon and Shiller estimators perform equally well, although only next to the OLS estimator. In the presence of autocorrelation or multicollinearity however, the restricted estimators may outperform the OLS estimator, in a MSE sense, with the flexible estimator (which subsumes the Almon) being more desirable.

Ward, R.W. (1993). "The Beef Checkoff: Measuring Its Economic Impact." ***Report UF#NCA 93.1.*** **Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida: in contract with the Cattlemen's Beef Promotion and Research Board, National Cattlemen's Association, National Livestock and Meat Board, Denver, CO.**
Can consumers' preferences for beef be changed? What role does the beef

checkoff have when reaching potential consumers of beef products? Consumers express their preferences through purchasing decisions. These purchases when aggregated over all consumers yield the demand for beef. Hence, if preferences are changed, then so does beef demand. In this study, economic models are developed that measure the demand for beef and how it has changed since the start of the national beef checkoff.

Ward, R.W. and O.D. Forker (1991). "Washington Apple Advertising: An Economic Model of its Impact." ***WAC 91.1.*** **University of Florida, Gainsville and the Washington Apple Commission.**
The Washington Apple Commission has used various forms of apple advertising for several years. Programs have been both local and national and have used several media. Washington apples face strong substitutes from other apple producing regions and potentially from other fruits. Given an adequate distribution of product, a fundamental question is to determine if apple advertising efforts have influenced the demand for Washington apples. This is the precise issue that is addressed in this research report.

Ward, R.W. and C. Lambert (1993). "Generic Promotion of Beef: Measuring the Impact of the U.S. Beef Checkoff." ***Journal of Agricultural Economics.*** **44(3): pgs 455-466.**
Generic promotions of commodities are growing in importance. In the U.S., commodity industry assessments or checkoffs (i.e. a per unit levy or tax) are used to underwrite domestic and international promotions by commodity groups. The U.S. beef checkoff is one of the largest of these new national commodity programs. Evaluation of the economic impact of beef promotion is an essential part of the beef checkoff. A model for evaluating the U.S. beef programs is estimated and the methodology is applicable to other commodity models that include advertising and promotion expenditures.

Wohlgenant, M.K. and C.R. Clary (1994). "Development and Measurement of Farm-to-Retail Price Linkage for Evaluating Dairy Advertising Effectiveness." ***The Journal of Agricultural Economics Research.*** **44(4): pgs 18-28.**
A conceptual and empirical framework for estimating the effects of dairy advertising on farm prices and producer returns is developed. The model consists of an industry-derived demand equation for milk linking advertising and government purchases to farm price, and a government purchases equation linking advertising and support prices to government purchases. The econometric model is a mixed continuous/discrete system, estimated by the Amenyia Principle. The two-equation system is estimated for both aggregated manufactured advertising and disaggregated manufactured advertising. The results are consistent with theory and show significant effects of advertising, particularly for fluid advertising.

Wohlgenant, M.K. (1993). "Distribution of Gains from Research and Promotion in Multi-Stage Production Systems: The Case of the U.S. Beef and Pork Industries." ***American Journal of Agricultural Economics.*** **75: pgs 642-651.**
A producer-financed program that leads to either an increase in retail demand from promotion or decrease in marketing costs from research will generate returns to producers that are generally smaller than returns generated through an equivalent change in producer supply from research. The distribution of gains depends on the degree of substitutability between farm and nonfarm inputs. Comparative statistics of equal absolute changes in demand, supply, and marketing costs in the U.S. beef and pork industries show the significance of input substitutibility for distribution of gains, and sensitivity of the results to beef and pork demand interrelationships.

Wojciech, J., W.J. Florkowski, E.E. Hubbard, and J.C. Purcell (1990). "Advertising and Promoting Pecans in Domestic and Export Markets: Industry Opinions." ***Proceedings Annual Convention, Southeastern Pecan Growers Association.*** **Starkville,Mississippi. (83): pgs 55-62.**
During the 1980s, several commodity organizations adopted programs designed to develop and implement long-term promotion and advertising campaigns. The promotion and advertising campaigns were financed by producer checkoff programs. Checkoff programs have been adopted by several commodity producers. The pecan industry will begin collection of a checkoff fee under auspices of their marketing agreement. The funds are intended for promotion and advertising and supporting research on pecans. The information presented was obtained through a survey of Georgia pecan growers, accumulators, and shellers.

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