

## **Economics and Nutrition: A Successful Partnership**

This Invited Papers session was sponsored by the Southern Regional Research Project, S-278, entitled "Food Demand, Nutrition and Consumer Behavior." The collection of papers in this session, represents some of the exciting research conducted individually and jointly by members of the S-278 project. In addition to the papers summarized here, two more papers were presented: "Dietary Quality Indices: A Comparison Of The Healthy Eating Index And The Diet Quality Index," by Pamela S. Haines, University of North Carolina, Chapel Hill, and P. Peter Basiotis, U.S. Department of Agriculture, and "Consumer Decision Making Of Various Ethnic Groups," by Dorothy Z. Price, Washington State University.

### **Introduction**

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The S-278 project represents a long history of collective and collaborated efforts among many researchers across the nation who share a common interest in addressing consumer demand issues. However, the initiation of the S-278 was of particular significance. It represents a new milestone and a new era of collaborated regional research efforts. Prior to S-278, all its predecessor projects have primarily a single disciplinary focus and most, if not all, of its representatives and participants are agricultural economists by training. During the new project initiating period, members of the former S-216 Technical Committee recognized the importance and the need for a multi disciplinary research project to study food consumption, food habits, nutrition and diets, and related policy issues. A decision was made to recruit new members and researchers from other disciplines to join the project.

As a result, the S-278 project approved in 1997 by the Southern Directors has become a regional research project, which is truly multi disciplinary in nature designed for addressing and solving various food demand related issues and problems. Its membership currently consists of a critical mass of representation from various disciplines including agricultural, consumer and family economists, nutritionists, and other social scientists. In October 1997, a plan to share research findings, and to seek feedback and interactions at national professional meetings was proposed at the first S-278 Technical Committee meeting in Coeur d'Alene, Idaho. The title of this section and the papers presented attest to this collaborated multi disciplinary research endeavor. We are indebted to Dr. Peter Basiotis for taking the initiative and responsibility of organizing the session and, particularly, to the ACCI for providing the opportunity and a forum to publicize and disseminate our research results and findings at its annual meetings.

### **Factors Affecting Consumers' Confidence in Food Labels**

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Similar to claims made in advertising, nutrition claims or labels prominently featured on food packages may create consumer expectations about product healthfulness. However, the proliferation of these food labels could have confused some consumers. For example, a total of 76 percent of respondents to a 1995 consumer survey agreed with the statement that too many foods claimed to be healthy. Moreover, since the criteria for the absolute terms used in these food labels (e.g., low, extralean) by the Food and Drug Administration do not vary by product category, high-fat food categories, such as mixed foods, cheese, and various baked goods, do not have access to simple absolute nutrition claims to highlight the better aspects of the products in terms of other nutrients. Nutrient criteria regulations make it difficult as well for some products to make a nutrition claim due to certain requirements concerning the appropriate amount of nutrient mentioned in the claim. These restrictions may limit the building of awareness as well as hinder the quality of consumers' choices. Moreover, if food labels appear on products that do not meet some global standard of healthiness, then consumers may feel misled and may then provide judgments on

the credibility of the claims. This issue may make it more difficult for consumers to rely solely on the food labels in their purchase decisions.

If consumers have confidence in the reliability of these claims to help them choose the right foods to buy and eat, then truthful nutrition claims on food packages may be more helpful in alerting consumers to food products they might consider further in their efforts to improve their diets. However, if consumers do not have much confidence in these labels, then the effectiveness of these claims is diminished. Further, it has been suggested that if consumers remain skeptical while operating under the NLEA environment, then they are likely to be pessimistic about the nutritional quality of food products, which in turn reduces their information acquisition activities.

It is, therefore, important to know the factors affecting consumers' confidence on these food labels. Scant information, however, is available addressing this topic. To fill this void, this article examines the effect of sociodemographic factors on consumers' confidence about the reliability of nutrition claims on food packages. The study leading to this article relies on USDA's 1994 "Diet and Health Knowledge Survey" (DHKS). Improved knowledge of the relationship between sociodemographic factors and consumers' confidence on food labels is useful in the design and implementation of nutritional education programs. Accordingly, the findings of this study could be used as a guide in directing government nutrition information programs toward specific population subgroups. If indeed, some demographic groups are less likely to be confident about the reliability of food labels as a basis for choosing foods, then it might be important for nutrition education programs to target these individuals in an effort to make them more aware and confident about the reliability of these nutrition claims due to the passage of the NLEA. It might also persuade policy makers and legislators to revise regulations pertaining to these labels. Furthermore, food marketers can tailor their products with nutrition claims toward those more likely to be confident about the reliability of the particular type of food label.

Results of the present study generally suggest that older, less educated, male individuals as well as those who placed less importance on nutrition when food shopping are less likely to be confident about the reliability of food labels as a bases for choosing foods than others. These results have some important implications for government education and public nutrition programs. The findings in this study could be used as a guide in directing government education programs toward specific population subgroups. For example, food labels may receive less attention from less educated male elderly people who place less importance on nutrition when food shopping. This finding is relevant considering that these elderly individuals may subject themselves to unnecessary health risk if they buy and eat foods with undesirable nutritional content. Hence, public health education programs should be targeted toward these individuals.

Results of this study may also be used as a guide in the design of food marketing programs. For instance, foods which are labeled with nutritional claims may be more valued by younger, well educated female consumers than others. Therefore, advertising and promotion campaigns may be directed at these individuals.

## **Food Expenditures And Dietary Quality Impacts Of Welfare Reform On Food Stamp Households**

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This paper examines the contribution of the Food Stamp Program (FSP) and the Special Supplemental Program for Women, Infants, and Children (WIC) to maintaining the nutrition security/diet quality of low-income participant households. We examine this issue in the context of recent welfare policy reforms that have emphasized moving people from welfare to work, and have replaced the federal Aid to Families with Dependent Children Program with the more limited state-administered Temporary Assistance to Needy Families Program. Federal food assistance programs were retained as a nutritional safety net, but in some cases access and benefits have been restricted. We examine the hypothesis that participation in the FSP and/or WIC is an important factor in maintaining and improving the dietary quality of low-income households. Using USDA's Healthy Eating Index, as an indicator of overall dietary quality, and its 10 component indices that examine more specific diet features, we estimate diet quality impacts of changes in FSP and WIC participation and benefit levels.

The methodological approach includes using the household Healthy Eating Index and its ten components as indicators of dietary quality and relating them to explanatory variables including the value of food stamps

received and participation in the WIC program along with household size, annual household income as a percent of the poverty threshold, education of household head, ethnicity, race, geographic region, urbanization, and tenancy status as well as a control variable for household members' missing HEI scores. The ten HEI component models' estimated coefficients were restricted to sum to the coefficient of the overall HEI and estimated by Restricted Ordinary Least Squares using the SYSLIN procedure of the Statistical Analysis System (SAS) version 6.12.

Results presented include both the means for the independent and dependent variables and estimated regression coefficients. Among the results were descriptive statistics such as the percentage of food stamp households with at least one member participating in the WIC program (19%); the proportion of female-headed food stamp households (71%) compared to 53% of all low income households and 46% of non food stamp households; the average weekly value of food stamps received by food stamp households (\$34.22); the lower mean income of food stamp households (65.71% versus 87.93% of the poverty level). Results suggest that both programs contribute significantly to maintaining and improving the nutritional well being of low-income households. The value of food stamps received has a large and statistically significant impact on overall household diet quality controlling for other factors. For each \$1 of food stamp benefits received, the aggregate household HEI score increases by 0.22. At the average weekly benefit level of \$34.33 this means an average household increase of 7.5 points. Food stamp households without benefits would have worse HEI scores than non food stamp households. As they receive benefits, household HEI scores begin to catch up with non-food stamp households. The break even point at which household food stamp benefits bring the recipient households to the level of non participating food stamp eligible households is estimated at \$17.54 per week. Because some 32% of food stamp participating families receive less than \$17.54 per week, these households appear to be worse off nutritionally than non participating food stamp eligible households. Households receiving food stamps valued above \$17.54 demonstrate higher HEI scores than non participating eligible families. WIC participation in the household had a strong, positive aggregate impact (+23.45 household HEI points) on household dietary quality. WIC participation appears to improve component scores for diet components included in the WIC packages, for example dairy and grain, and also components not included in the WIC packages, for example fruits and possibly vegetables. Receipt of the WIC package frees up food stamp and other resources to purchase other items. Additionally, WIC nutrition education may contribute to increased purchase of fruits and vegetables.

#### Endnotes

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