

Chemical Inputs and Food Safety

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Issue. Some consumer and public interest groups perceive the use of chemical inputs, especially pesticides, in food production and processing as jeopardizing the safety of the U.S. food supply. The public choice issue raised by food safety concerns is who determines what are acceptable levels of risk and safety and how those determinations ought to be made. The opinions of risk assessment experts significantly differ from those of the public over this issue. Risk assessors rank the health risks from chemical residues in food products as negligible because residues are generally so small that they are unlikely to threaten even the most susceptible and most exposed individuals with a significant risk of cancer or other diseases. However, scientists do not unanimously agree on risks. When scientists debate the significance of animal-test results' applicability to human health, they reveal that there is uncertainty in risk assessments. This uncertainty may intensify public concern.

Context. Pesticide residues on food contribute between 0 to 6,000 (best and worst case scenarios) cases of cancer in the United States each year, according to the Environmental Protection Agency (EPA). In contrast, between 6.5 million and 33 million cases of food-borne illness arise annually from micro-organisms, resulting in about 9,000 deaths. But the public perceives chemical residues to be a bigger threat to health and the environment, household surveys indicate.

Several factors contribute to this popular perception. First, recent highly publicized public health questions, such as whether the growth regulator daminozide (Alar) should be allowed in apple production, have focused attention on chemical inputs. Second, that some government monitoring programs are relatively limited and test only a small proportion of food products for pesticide residues, and are not statistically based, produce some public skepticism of the government's ability to effectively enforce consumer-oriented regulations. The potential use abroad of pesticides not approved for domestic use and the difficulty monitoring all pesticides heighten consumer concerns over the inspection process for food imports. Third, consumer concern over pesticide use is not limited to food safety. Because pesticides can persist in various forms for long after their intended use and in unanticipated media such as drinking water supplies, their effect on the environment, water quality, worker safety, and the long-term productivity of agriculture is uncertain. Finally, consumers tend to react quickly when presented with new information about health risks from pesticide exposure, especially if that risk involves cancer. However, the assessment of risk and determination of exposure are extremely difficult. Scientists still debate the proper method for assessing risk and exposure, while policymakers debate how to make the political, economic, and ethical tradeoffs implicit in setting standards for "acceptable risk."

At Stake. Agribusinesses, farmers, and environmental and consumer groups are pressuring Congress to resolve a host of pesticide issues. A central issue in the food safety debate involves the way that EPA licenses pesticide products and carries out its responsibilities as mandated by the Federal Food, Drug, and Cosmetic Act (FFDCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The Delaney Clause of the FFDCA imposes a zero-risk standard by prohibiting approval of cancer-causing pesticides that concentrate in processed foods. Animal studies are sufficient to demonstrate carcinogenicity under the Delaney Clause. The Clause does not permit consideration of benefits generated by the use of chemical inputs. However, in implementing the registration process, EPA has adopted a *de minimis* or negligible risk standard rather than the zero-risk

standard. Pesticide producers and farmers generally support EPA's use of a negligible-risk standard. However, a 1992 court decision, won by a coalition of consumer groups and labor organizations, could require EPA to implement the zero-risk standard in registration decisions. Adopting a zero-risk standard could significantly affect agriculture because many widely used pesticides and their alternatives could lose registrations. Farmers could face pest problems solved by existing pesticides. Because pesticides are an integral part of agriculture, changes in pesticide regulations could influence production practices, availability, prices, and safety of food.

Alternatives. Congress and the Bush administration developed legislative initiatives addressing the use of chemical inputs in agriculture. These initiatives address the following issues. First, the proposed alternatives replace the Delaney Clause with a negligible-risk standard. Significant differences emerge in how "negligible" is defined, whether by a narrative definition allowing for case-by-case consideration or by a specific numerical criterion ensuring a more rigid interpretation of the risk levels. Second, some argue for the consideration of benefits as well as risks in setting pesticide tolerances, even when chemicals are carcinogenic and concentrate in processing. Benefits from the application of chemical inputs include greater food production, improved cosmetic quality of food products, and lower production costs. Third, should Congress impose national uniformity for tolerances on States, or continue to permit States to establish more stringent control measures? National uniformity would facilitate interstate commerce but would prohibit States or other jurisdictions from experimenting with alternative approaches and responding to local pressure for more restrictions on pesticide residues.

Other important pesticide-use issues debated but left unresolved during the 102d Congress include: (1) the international harmonization of pesticide residue standards to facilitate trade, (2) greater regulation of the export of pesticide products not registered by the EPA, and (3) stricter controls of pesticides found to pollute ground water. Consumer and environmental groups generally favor the zero-risk standard, consideration of risks only (excluding benefits), and States' ability to impose tighter controls over pesticide use. They argue that any relaxation of standards puts consumers and the environment at risk, that there is still significant uncertainty involved in the science and technology of pesticide testing, and that cumulative effects of combinations of pesticides are unknown. In the absence of certainty, these interest groups argue for the safest course. Agribusinesses and farmer interest groups generally support a negligible-risk standard, benefit/risk methods of assessment, and national uniformity in tolerance levels for pesticide residues.

Agenda. Recent court decisions may force EPA to impose a zero-risk standard. Pesticides that do not meet the standard may have to be taken off the market. EPA has stated that strict implementation of the Delaney Clause would affect 35 chemicals used on 80 crops. EPA is considering further appeals of the court ruling. Several bills intended to directly affect food safety and pending in Congress could significantly change the pesticide registration process. The key issues addressed by the bills include: replacing the Delaney Clause with one of several possible negligible-risk standards, considering productivity benefits as well as risks when setting pesticide residue tolerances, allowing Federal pre-emption of State tolerances, streamlining the process for canceling and suspending registrations of cancer-causing pesticides, and banning exports of pesticides not registered in the United States. While these bills address the scientific aspects of food safety, their ability to increase consumer confidence in the food supply is unknown.

Information Sources. Carol S. Kramer, "Food Safety: The Consumer Side of the Environmental Issue," *Southern Journal of Agricultural Economics*, Vol. 22, No. 1, July 1990, pp. 33-40.

Food Sector Regulation: Organic Labeling

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Issue. Consumers rely on labels to identify organic foods. But, although nearly half the States have laws pertaining to organic labeling, there is no national definition of the term "organic". Thus, farmers and processors are producing products labeled organic using differing standards. Furthermore, many products grown with organic methods and labeled organic are not certified by any State or private certifying agent. This situation confuses consumers who want to know what they are buying. The 1990 farm act makes organic product definition and certification mandatory. The definition of organic that is adopted will have a strong effect on the organic food industry.

Context. With annual sales of over \$1 billion (but still less than 1 percent of food sales), the organic food industry has become a noticeable component of our food system. Demand for organic foods is rising; sales are increasing through natural food stores and new chains of gourmet/health food supermarkets. Total demand is likely to be affected by the degree of consumer confidence in the organic label. At the present time, producers apply the organic label according to differing production requirements. Also, processed foods labeled organic contain varying proportions of organically produced ingredients. Many consumers associate organic with residue-free, but that is not guaranteed. The organic community generally prefers the image of organic to relate to production methods employed that are good for the environment. The 1990 farm act established a National Organic Standards Board (NOSB), which is responsible for making recommendations to the Secretary of Agriculture by October 1993 on national standards and policies for the production, marketing, and labeling of organic foods.

At Stake. Because organic products differ from conventional products by production practices that are unobservable at the point of purchase, consumers need a credible means to identify organic foods. To the extent consumers are willing to pay higher prices for organic products, there is occasionally a temptation to mislabel nonorganic products as organic. The Food and Drug Administration investigates intentional mislabeling, but with no legal definition of organic, investigations can be made only on a case-by-case basis. The establishment and monitoring of national standards for organic labeling will reduce the incentive for fraud, facilitate interstate commerce, help consumers make educated decisions when paying a price premium for organic products, and enable organic producers to differentiate their products from conventional products in the marketplace. However, there must be a balance between consumer and producer interests. Strict standards and an adequate level of monitoring for compliance would instill consumer confidence and likely expand demand, while strict production requirements, expensive testing, considerable paperwork, and costly certification fees would discourage producers from farming organically and limit production. There is a concern by the conventional food industry that the promotion of the organic label could cause consumers to question the safety of conventional products.

Alternatives. The NOSB must consider many options, including a specific definition of organic, in developing its recommended policies and standards for labeling organic products. For example:

- (1) Should a USDA organic seal be established?
- (2) What restrictions will apply to the organic label? Will labels be required on individual produce

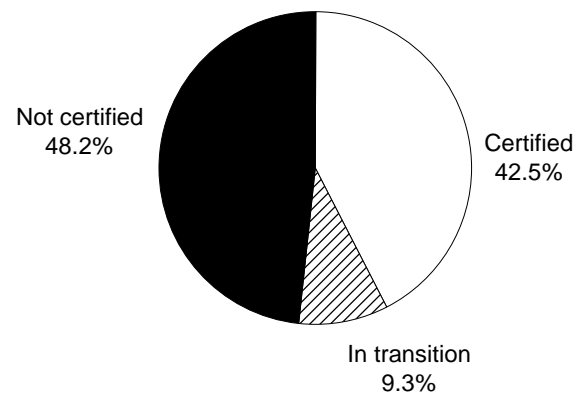
items, or will a general label on a produce bin be sufficient?

- (3) How must labels differ to illustrate varying proportions of nonorganic ingredients in processed products?
- (4) What labeling restrictions will apply to wine made from organically grown grapes that contain sulfites from natural sources?
- (5) What records will be required to demonstrate that the integrity of the organic product has not been compromised from farm to retail level?
- (6) How will botanical pest controls, synthetic inert ingredients, genetically engineered inputs, and other inputs be regulated?
- (7) If residue tolerance levels are set, at what level will they be set, and what will testing requirements be? Some argue that, by establishing residue tolerance levels lower than those allowed by EPA, an implicit food safety claim would be made.
- (8) What requirements will be specified for segregated conventional and organic production within the same farming operation?
- (9) Will an organic grower whose crops have been subjected to spray drift from neighboring conventional farming operations be decertified and, if so, for how long? Can legal recourse be sought by organic growers if economically harmed by spray drift?
- (10) For how long will an organic grower whose farm had been subjected to a government emergency spray program be prohibited from selling the crops as organic? Will growers be expected to seek permission to substitute organic pest treatments for those mandated by government emergency spray programs?
- (11) How will organic standards regulate synthetic feed supplements, pesticide use on feed crops, drugs used to treat sick animals, and livestock living conditions?
- (12) How can harmonization with foreign country standards forestall an interruption in trade?
- (13) How can monitoring of certifying agents for compliance be made cost effective?

Agenda. The NOSB is developing the standards and policies it will recommend to define organic so that USDA can implement the National Organic Production Program. Working committees have been established, and public comments have been solicited. After the NOSB presents USDA with its recommendations, USDA will develop draft regulations (which will also be available for public comment) and then issue final regulations.

Information Source. U.S. Senate, Committee on Agriculture, Nutrition, and Forestry, *Report of the Committee on the Food, Agriculture, Conservation and Trade Act of 1990*, U.S. Government Printing Office, 1990.

Certification of U.S. organic growers
Nearly half of U.S. organic growers are not certified.



Source: Study by University of California at Davis (results published in *Organic Times*, Summer 1991).

Food Sector Regulation: Nutrition Labeling

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Issue. Federal regulations issued in January 1993 will make nutrition labeling mandatory for most processed foods by spring 1994. Nutrition labeling may cause changes in food consumption patterns or product reformulation. How well consumers understand and apply the information on the new labels to choose a healthful diet will strongly depend on the success of public and private nutrition education activities. Critics question whether consumers will really use and benefit from the new labels. Timely assessment of the effect on consumer behavior and adequate oversight of industry implementation will also be important.

Context. Nutrition labeling is currently voluntary, becoming mandatory when a nutrition claim is made or, for FDA-regulated foods, when nutrients are added. USDA regulates labeling on meat and poultry products (more than 2 percent meat/poultry by cooked weight or more than 3 percent by raw weight); FDA regulates labeling on other products. Approximately 40 percent of FDA-regulated products and 4 percent of USDA-regulated products contain nutrition information. On November 8, 1990, Congress passed the Nutrition Labeling and Education Act (NLEA), making nutrition labeling mandatory for FDA-regulated processed foods, and voluntary for raw seafood and produce. In the interest of harmonization, USDA developed parallel regulations for meat and poultry products, published jointly with FDA's in January 1993. FDA regulations become effective May 1994, while USDA's become effective July 1994, although new labels will likely appear before then. The regulations change the required nutrients, define nutrient content claims (such as "light" and "reduced"), and list permissible health claims for FDA-regulated foods. Foods produced at the retail level, served in restaurants and other institutions, or in small packages, are exempt, provided a nutrition claim is not made. Small manufacturers are also exempt, with an estimated minor effect on the proportion of labeled processed meat and poultry products.

At Stake. The nutrition labeling efforts were based on the premise that consumers will use the new labels to change their food choices and, in particular, eat less fat. Using a model that estimates declines in mortality from coronary heart disease and cancer associated with reductions in fat intake, USDA and FDA estimated health benefits for the joint nutrition labeling regulations at over \$6 billion over a 20-year period. There is much controversy, however, about the benefits consumers will actually derive from mandatory nutrition labeling. Critics question the assumptions that consumers will (1) read the labels, (2) change consumption and nutrient intake, and (3) experience less chronic disease. There are no hard data to support these assumptions, although a shelf-labeling experiment did show changes in food purchases. The benefits estimated above are conservative, and do not include (1) health savings associated with reduced cases of coronary heart disease, cancer, and other diet-related diseases, (2) any effects the NLEA's nutrition education efforts may have on label use and nutrient intake, and (3) benefits by consumers who do not read nutrition labels but who may benefit if manufacturers reformulate their products to improve their nutritional value. In addition, the estimates do not take into account nonconsumption benefits of mandatory nutrition labeling, such as increased consumer confidence in the quality of food and in the food industry. Costs of the joint nutrition labeling were estimated at \$1.6-2.6 billion over a 20-year period. To minimize the burden on industry, manufacturers may use databases, rather than chemical analyses, to compute the nutrient content of foods.

Alternatives. Decisionmaking is required in the following areas:

- (1) Development of nutrition education efforts. What should they address, and how should they be coordinated, funded, implemented, and monitored?
- (2) Monitoring and evaluation of small business exemption. What will be the experience in practice, with respect to the burden on small businesses and information available to consumers?
- (3) Changes in coverage. Although foods prepared away from home represent an increasing proportion of foods consumed, many are exempt from mandatory labeling (such as foods prepared at the retail level, or served in restaurants). If better databases become available, what would be the costs, benefits, and feasibility of mandating nutrition labeling for these foods?
- (4) Determining the effectiveness of voluntary compliance. According to the NLEA, if compliance with FDA's voluntary nutrition labeling program for raw produce and seafood is low, it becomes mandatory. FDA must present a report every 2 years, beginning in May 1993, regarding the level of compliance with the voluntary nutrition labeling program. Results of the first survey of 2,000 stores, undertaken in December 1992, suggest that compliance is substantial, and there is currently no need to mandate nutrition labeling for raw produce and seafood. Similar USDA regulations stipulate that if participation is not significant in the voluntary program for raw meats, USDA will initiate proposed rulemaking to determine whether it would be beneficial to make it mandatory. USDA will issue its first report May 1995.
- (5) Determining the level of reference values. FDA may initiate rulemaking after November 1993 to change the reference values (or daily value—DV) used on the new labels for comparing nutrient levels in foods. Should the new levels represent a minimum to protect against deficiencies, or a higher level, protective against chronic diseases? How will this affect product formulation? What mechanism is necessary for regularly updating the reference values, as new evidence for nutrient requirements becomes available and as population changes?
- (6) Adjusting to changes in information and techniques. As new information becomes available, how will it be incorporated into the labels? Who decides what changes should be made, and when?
- (7) Harmonization with other countries. Other countries may view the new regulations as a barrier to trade. To what extent will the new regulations affect international trade? Should the regulations be modified to be more consistent with other countries and facilitate trade?
- (8) Determining the effect on product innovation. Will nutrient content definitions (such as "reduced fat") hamper product reformulation, and reduce manufacturers' incentives to reformulate? Will restrictions on allowable health claims discourage manufacturers from making product innovations in different areas of potential nutrition interest?

Agenda. USDA and FDA will soon define the term "healthy" and focus on educating consumers on using the new labels to change consumption patterns. First reports on compliance with the voluntary nutrition labeling programs are due in May 1993 (FDA) and May 1995 (USDA). FDA may initiate rulemaking after November 1993 to change nutrient DV's. USDA also plans to issue regulations about health claims, publish the codified language, and review its standards of identity to provide manufacturers with greater flexibility. Monitoring consumer use and understanding of nutrition labels, and changes in consumption patterns will be necessary to evaluate effects of label reforms.

Information Sources. *The Federal Register*, Jan. 6, 1993 (2 books); also on computer diskettes, available from the Government Printing Office, and on the Federal Bulletin Board. Two U.S. Dept. of Agriculture, Economic Research Service, articles: B. Frazao and L. Lynch, "New Nutrition Labels for Consumers," *Agricultural Outlook*, July 1991 and E. Frazao and L. Lynch, "Food Labeling Regulations Changing," *Food Review*, Vol. 14, Issue 4, Oct.-Dec. 1991.

Evaluation of Nutrition Education Policy

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Issue. The U.S. Department of Agriculture (USDA) is the lead government department charged with providing nutrition education information. With a growing consensus on the link between diet and health on one hand and expansion of educational programs on the other, it is becoming increasingly important for USDA to critically assess and evaluate its nutrition education activities.

Context. Broad legislative authority for providing nutrition education and information by USDA originated in early acts of Congress, providing statutory sanctions for extension activities, such as the Organic Act of 1862 and the Smith-Lever Act of 1914, and more recent enactments, such as the National Agricultural Research, Extension, and Teaching Policy Act of 1977 and its 1981 and 1985 amendments. In addition, statutory authority is given by specific program enactments, creating nutrition education components in existing programs, such as the Special Supplemental Food Program for Women, Infants, and Children (WIC). Consequently, a minimum of five different USDA agencies conduct hundreds of nutritional education/information activities. One of USDA's most visible nutrition education efforts relates to the *Dietary Guidelines for Americans*, which was developed in cooperation with the Department of Health and Human Services. In 1991, an Ad Hoc Committee, appointed by the Human Nutrition Board of Scientific Counselors, recommended that evaluation activities expand beyond descriptive and qualitative assessments to more quantitative assessments that would result in obtaining positive, measurable changes in target groups' nutrition-related knowledge, attitudes, and/or behavior. Survey results, reports of food intake, and measures of health status would quantify the research.

At Stake. USDA support for nutrition education rose from \$132.7 million in FY 1986 to \$212.4 in FY 1992, an increase of approximately 60 percent. This represents an increase of approximately 19 percent in real dollars. Most of the funds for these activities are distributed to and managed by State agencies. As money on food assistance and nutrition education increases, it becomes increasingly important for USDA to objectively assess program effectiveness. USDA spent approximately \$33.5 billion on food assistance in FY92. Effective nutrition education would help ensure that those funds actually contribute to recipients' health.

Alternatives. The Ad Hoc Committee cited a number of reasons why USDA agencies were not focusing more attention on quantitative/impact evaluations. In some instances, evaluation efforts were narrowly viewed as being program specific and frequently focusing on operational measures of performance, such as the number of clients contacted or brochures circulated, in keeping with the parent agency's management information needs. Other limitations cited were inadequate resources and staff expertise in communications and evaluation. Policy alternatives to address evaluation include:

- (1) Status quo with little change in emphasis on program evaluation.
- (2) Increase evaluation activities via increased funding or reallocation of program dollars. A redirection could strongly encourage agencies to provide measurable indicators.
- (3) Alter program regulations. Currently, State and local agencies have considerable autonomy in terms of evaluation methodology employed. USDA agencies could require more objective evaluations

in programs that rely on State and local agencies to carry out program implementation. For example, they could require that all evaluation efforts conform to some minimum criteria and/or produce specified measures.

(4) Improve interagency cooperation and evaluation. It has been argued that agencies must move beyond their individual mandates and begin to develop cooperative, cross-cutting programs and activities capitalizing on the unique expertise in each agency. Improved cross-program coordination would contribute to the development of enhanced evaluation methodologies and educational materials. Cross-program evaluations could be designed to improve overall program assessments, and thus Department-level planning and program implementation.

Agenda. Although nutrition education may be a legislatively mandated component for certain USDA programs, no specific legislation exists that provides guidance on how the agencies should document the overall effect of their respective programs; none is expected. However, USDA agencies could specify evaluation in program regulations.

Information Sources. Annual Reports to Congress on USDA Human Nutrition Research and Education Activities, from 1986-91; Ad Hoc Committee Report to Human Nutrition Board of Scientific Counselors to Review Education Programs for USDA Nutrition Education Programs and Materials, Oct. 1991.

A daily food guide

Food group	Suggested daily servings from entire group
Milk, yogurt, and cheese	2-3
Meat, poultry, fish, dry beans and peas, eggs, nuts, and seeds	2-3
Vegetables	3-5
Fruits	2-4
Breads, cereals, and other grain products	6-11

Source: The USDA Food Guide in *Preparing Foods and Planning Menus Using the Dietary Guidelines*, HG-232-8.

Food Safety: Microbial Risks and Costs

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Issue. An estimated 6.5 to 33 million people in the United States become ill and 6,000 to 9,000 die each year from foodborne microbial pathogens. Meat, poultry, dairy, and seafood products are the foods most likely to contain contaminants. Microbial foodborne disease causes an estimated \$2.5 billion to \$3.4 billion in medical costs and reduced productivity to be spent each year for four major bacterial diseases and \$2.6 billion each year for parasitic diseases.

Context. The U.S. food industry employs over 12 million people in processing and marketing products. Domestic food sales total \$479 billion, of which \$267 billion in sales are of meat, dairy, poultry, eggs, and seafood products. Sales of U.S. food abroad total \$42 billion, of which \$9 billion are animal and seafood products. The United States imports over \$24 billion worth of all foods, including \$9 billion worth of animal and seafood products. The National Academy of Sciences recommends that improvements be made in U.S. food safety.

Responsibility for ensuring food safety is currently shared among producers; processors/marketers; Federal, State, and local government agencies; and consumers. However, each group has limited information about the microbial safety of the food it sells, inspects, or buys since microbial contaminants cannot be detected by sight or touch and may escape government inspection using those techniques. The Federal inspection program and some processors have substantially increased the extent of laboratory testing for microbial contaminants, but overall data are still very limited.

In 1992, the Food Safety and Inspection Service (FSIS), which regulates meat and poultry inspection, issued a mission statement emphasizing a public health orientation and risk-based allocation of resources using the best science and technology. However, the system of inspection that has evolved under the current laws (the Federal Meat Inspection Act and the Poultry Products Inspection Act) includes many of the sight and touch inspection techniques that do not detect microbial contamination. Implementing a risk-based allocation of resources involves developing a database to better determine which specific pathogens (bacteria, parasites, viruses, fungi) cause the greatest costs and to identify which foods are associated with each pathogen.

Globalization of markets is expanding consumers' exposure to risky foods and focuses attention on the reliability of foreign inspection. Consumers are often unaware of the risks, do not take the risks seriously, or feel they can control the risks through cooking and good sanitation practices. However, safe food handling is not 100-percent effective in reducing risks.

The demand for safer food may be rising due to increases in income, in individual health awareness and responsibility, and in the pool of individuals at high risk for foodborne disease (the elderly, cancer patients, AIDS patients, and those with organ transplants).

Scientific information is attributing more human disease to contaminated food and is improving our ability to identify high-risk foods, production and preparation practices, and consumers. Modern technologies increase our capacity to reduce microbial disease risks, but also create new risks. For example, refrigeration prevents most bacterial pathogens from growing except cold-resistant ones, such as Listeria, which have time to grow during refrigeration.

At Stake. The tradeoffs between costs and benefits of most interventions to improve food safety are uncertain, yet such knowledge could provide valuable information for regulatory decisionmaking. Producers, government, consumers, and taxpayers could save several billion dollars each year if foodborne illness were reduced. Further, surveys suggest that some consumers, if informed about risks, will pay a premium for safer food products. Benefit-cost analysis found that public health benefits from reduced microbial contamination were greater than the costs of irradiating pork and chicken.

Alternatives.

- (1) Continue the existing, legislatively based inspection system for meat and poultry.
- (2) Augment or replace current FSIS inspection of meat and poultry that is based on sight and touch with more laboratory testing or other techniques to detect microbial contaminants and chemical residues at various points in the food production/marketing process. This approach could require new legislation.
- (3) Consolidate all government food-inspection activities into one agency to simplify tracing contaminated food to its origin and implementing pathogen-control regulations at the most cost-effective point from farm to kitchen. Inspection activities are presently divided among the Animal and Plant Health Inspection Service, the Federal Grain Inspection Service, the Agricultural Marketing Service, and FSIS in the U.S. Department of Agriculture (USDA), the National Marine Fisheries Service in the Department of Commerce, and the Food and Drug Administration.
- (4) Label all consumer packages of raw meat, poultry, seafood, and other foods likely to contain pathogens with safe handling and cooking instructions.
- (5) Educate and raise public awareness through media campaigns, school curricula, training programs, and other projects about foodborne disease risks and safe food handling.

Agenda. Changes to the two laws that authorize USDA inspection may be proposed, which could lead to the adoption of any or a combination of the above options. Costs and benefits of specific regulations may be examined, such as those to ensure temperature control of pathogens by processors and retailers and new regulations to require safe food handling labels. Research continues on the best methods to estimate the value of food safety and cost effective interventions.

Information Sources. Tanya Roberts, "Human Illness Costs of Foodborne Bacteria," *American Journal of Agricultural Economics*, vol. 71, 1989. Nancy H. Bean, Patricia M. Griffin, Joy S. Goulding, and Cecile B. Ivey, "Foodborne Disease Outbreaks, 5-Year Summary, 1983-1987," Centers for Disease Control, *Morbidity and Mortality Weekly Report*, Mar. 1990. National Academy of Sciences, National Research Council, *Poultry Inspection: The Basis for a Risk-Assessment Approach*, Washington, DC: National Academy Press, 1987. Eileen van Ravenswaay and Sharon Bylenga, "Enforcing Food Safety Standards: A Case Study of Antibiotic and Sulfa Drug Residues in Veal," *Journal of Agribusiness*, 9: 39-53, 1991. Tanya Roberts and Peggy Foegeding, "A Survey of Estimated Risks of Human Illness and Costs of Microbial Foodborne Disease," *Journal of Agribusiness*, 9: 5-24, 1991. J.V. Bennett, S.D. Holmberg, M.F. Rogers, and S.L. Solomon, "Infectious and Parasitic Diseases," *Closing the Gap: The Burden of Unnecessary Illness*, 1987. W.E. Garthright, D.L. Archer, and J.E. Kvenberg, "Estimates of Incidence and Costs of Intestinal Infectious Diseases in the United States," *Public Health Report*, 103 (2):107-116, 1988. Seung-Youll Shin, James Kliebenstein, Dermot J. Hayes, and Jason F. Shogren, "Consumer Willingness to Pay for Safer Food Products," *Journal of Food Safety*, 13:51-59, 1992. S.D. Moss, R.L. Degner, and J.A. Zellner, "Consumer Attitudes toward Food Safety and Willingness to Accept Selected Bacterial Control Measures for Fresh Chicken," FAMRC Technical Report 91-1, Florida Agricultural Market Research Center, University of Florida, 1991.

Pesticide Use and Fresh Produce Grades

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Issue. Federal grade standards for fresh fruits and vegetables have been criticized for specifying unnecessarily stringent requirements for external appearance. Critics, who believe this leads to greater use of chemical pesticides, allege that the emphasis on outward appearance hampers efforts to develop and establish markets for produce grown with no or fewer pesticides.

Context. Grading applies official standards to determine which grade designation is assigned to each particular item or lot. Federal grades play an important commercial role by helping buyers and sellers exchange information about produce quality. For example, more than three-fourths of the commercially traded potatoes, apples, pears, and sweet cherries are graded. Use of a single set of standards helps buyers and sellers compare offers and bids of several opposite parties. Buying by Federal grades also gives the buyer a basis for seeking redress if the produce does not meet standards for the grade specified in the contract. Sixty-four fresh vegetables (excluding seed potatoes and onion sets) and 25 fresh fruits (omitting duplicates for State-specific standards) have Federal grade standards.

Grade standards for fresh produce emphasize external attributes such as cleanliness, color, surface defects, and shape as well as internal attributes such as maturity and decay. Grade standards pertain to readily observable attributes to enable wholesale and retail buyers to enter into transactions without seeing the produce before delivery. Federal grades provide a convenient way to describe product attributes without having to specify separately each attribute. External attributes covered by grade standards may reveal much about internal quality characteristics, including extent of decay.

Critics of existing grade standards contend that grades convey information about many product attributes, but not about use of pesticides in producing and packing, or their residues. The grades consequently do not help consumers choose or express preferences for produce grown and marketed with reduced use of pesticides, or produce known to be low in pesticide residues. A grading system that describes appearance but does not consider pesticide use and residues may lead growers and packers to apply more pesticides than they would if consumers' preferences regarding pesticides were fully communicated in the grades and standards.

Little evidence is available regarding effects of grades on pesticide use. Pesticides may limit quality degradation for some produce items. However, many pesticides increase yield as well as quality (as measured by grades) and the effects are not easily separated. The Environmental Protection Agency (EPA) sets safety standards for pesticide use and residues in food, and the Food and Drug Administration (FDA) monitors pesticide residues and enforces compliance.

At Stake. Consumer preferences, satisfaction, and safety of food products are ultimately at stake. Reducing pesticide use would in some cases increase the share of produce with blemishes and other appearance defects, and reduce per acre yields. Higher prices resulting from higher production costs and reduced production would elevate consumer food expenditures. Acceptability of blemished produce to consumers is a key unknown. Results of several surveys suggest that consumers are willing to accept some types of surface defects, but not all.

Alternatives. Specific policy alternatives include:

- (1) Make no change in standards (status quo).
- (2) Establish lower standards in external appearance.
- (3) Modify standards to include information about pesticide use during growing and packing, and their residues.
- (4) Add a pesticide testing and monitoring program separate from grades and standards and FDA's efforts.

Some consumers might experience shortrun difficulties obtaining produce with desired appearance attributes if standards for external appearance were lowered. This would not preclude marketers from developing alternative mechanisms, including expanded use of brands and business contracts specifying attributes, to deliver produce with appearance attributes that consumers desire. Higher prices for such produce likely would eventually be passed back to growers, encouraging pesticide use to limit appearance defects. Consequently, pesticide use might not change much. Those growers and marketers who can use brands to help consumers identify produce with desired attributes probably would gain market share.

Grade standards that help consumers choose produce with lower pesticide residues than EPA deems safe could be based on: (1) measuring and reporting pesticide residues or (2) monitoring pesticide use from the field through marketing. Either approach would cost more.

A pesticide testing or monitoring program might be separate from the existing grading program. Such a program could be voluntary like the organic produce certification program. A voluntary program would avoid testing or monitoring costs for any produce not covered. Consumers who are satisfied with the existing grading standards and EPA's pesticide tolerances would be spared the added costs. Some retailers now are testing produce for selected pesticide residues. These testing efforts are not uniform, which might confuse consumers.

The extent to which a pesticide testing or monitoring program would change the composition of fresh produce purchases depends on consumers' sensitivity to health and environmental risks, price differences, and product quality differences. Such a program might enable those consumers who are most concerned to lower or avoid use of commodities produced under practices relying on pesticides. Some consumers might willingly pay more for pesticide-free produce or produce grown and marketed with reduced pesticides purely for reducing environmental risks. However, if the program were voluntary, many consumers who prefer visually attractive produce but are sensitive to higher prices would likely continue to buy produce which is not tested or monitored for pesticides and which sometimes contains pesticide residues within EPA's tolerances.

Agenda. The 1990 farm act requested the Department of Agriculture to explore whether high standards for outward appearance encourage pesticide use. The Agricultural Marketing Service (AMS), which has administrative authority to specify and modify grades and standards, has held public meetings soliciting views of advocates, industry, and scientists on grades and pesticide use. AMS also has contracted with an independent firm to study this issue for selected commodities.

Information Source. Contact authors of this paper.

Changes in the Food Stamp Delivery System

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Issue. Decisions concerning the structure of the Food Stamp Program (FSP) affect program participation and benefits and, thus, budget outlays. These decisions include the form and level of benefits, eligibility criteria and verification procedures, the payment and benefit delivery mechanism, and employment and training requirements. Current issues involving possible FSP structural change include: (1) eligibility criteria for the FSP, (2) the appropriate level of food assistance, and (3) alternatives to the coupon system for delivering FSP benefits.

Context. The Food Stamp Program provided \$20.9 billion in benefits to an average of 25.4 million participants per month in FY 1992. Since 1988, participation has grown rapidly, with recipients increasing by slightly more than a third. During an average month in 1992, about 10 percent of Americans were enrolled, a historic high. While the Federal cost of operating the program has fallen to about 7 percent of the provided benefits, compared with 10 percent in the late 1980's, rapidly increasing FSP participation has created pressures on administrative facilities, making it more difficult to monitor for losses or diversion of benefits.

At Stake. Alternatives to the coupon system, such as a special "credit card" system or government checks, are designed to lower the administrative cost, at least in the long run. These alternatives may also reduce the stigma associated with coupons which would encourage currently eligible nonparticipants to enroll, increasing budget outlays. The alternative methods of delivering FSP benefits also provide a means to reduce fraud associated with coupons. Proponents of the current system, however, claim that coupons directly link the program to food and that food stamps help low-income households budget for food.

Alternatives. Benefits are currently paid to recipients via coupons redeemable at authorized food stores for certain food items. Retailers treat coupons as cash and are paid through the banking system. Two alternatives have been suggested. One alternative is an electronic benefit transfer (EBT) system, which credits benefits to an account set up for the recipient. Payment at the checkout line is made by the recipients using a plastic card and an individual password. EBT is an operational alternative authorized in the Food Stamp Act. A second alternative is to "cash-out" the FSP by providing benefits such as cash (government check) instead of coupons. Cash-out is currently authorized for only a limited time in certain demonstration projects and in related assistance programs in some U.S. territories.

EBT has gained widespread support. Demonstration projects have shown this technology to be feasible, but with high initial capital costs. EBT automates many of the auditing functions done manually in the coupon system, and therefore can be more easily adapted to a growing caseload. Regulations permit Federal funding EBT systems up to the current level of Federal administrative costs. States must shoulder any additional costs.

Cashing out is more controversial. This reform would distance the FSP's association with food. Evidence from recent demonstration projects suggests that cashing out reduces household food expenditure, but the extent remains uncertain. There is some evidence that cash-out reduces the availability of a few nutrients due to changes in household food supplies. It is not clear, however, that

households receiving checks are at a significantly greater nutritional risk. More work is needed to assess effects on administrative costs, the retail community, and participation rates.

Agenda. Maryland has implemented a statewide EBT system. Other demonstrations are underway in Pennsylvania, New Mexico, New Jersey, Iowa, and Minnesota. South Carolina, Texas, and Wyoming are expected to award contracts for EBT development during 1993.

USDA's Food and Nutrition Service has no plans to convert any of the cash-out demonstrations to permanent operations.

Information Sources. Four U.S. Dept. of Agriculture, Food and Nutrition Service, bulletins: *Food Assistance Programs, 1992*; *Electronic Benefit Transfer in the Food Stamp Program: The First Decade*, Mar. 1992; *The Effects of Cash-Out on Food Use by Food Stamp Program Participants in San Diego*, Dec. 1992; and *The Evaluation of the Alabama Food Stamp Cash-Out Demonstration*, Sept. 1992.

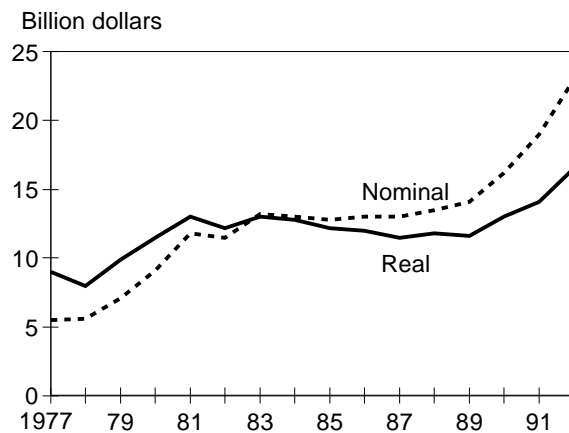
Food Stamp Program participation as a percentage of population

Participation has risen sharply since the late 1980's.



Real and nominal Federal expenditures on the Food Stamp Program

Program expenditures are on the rise.



Multiple Participation in Domestic Food Assistance

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Issue. The foundation of USDA's domestic food assistance is the Food Stamp Program (FSP), available to all individuals of limited finances. There are also smaller programs primarily targeted to high nutritional risk subpopulations such as pregnant and nursing women, infants, children, and the elderly, as well as food assistance through such alternative channels as soup kitchens. People may participate in more than one program because there is overlap in targeted populations among the programs.

Context. The FSP accounts for about two of every three Federal food assistance dollars. It is available to anyone who meets certain income and asset restrictions. However, not all eligible people participate. The maximum monthly benefit is based on the cost of USDA's Thrifty Food Plan, a low-cost, nutritious, and palatable plan designed to meet most basic food needs. Actual benefits are determined on a sliding scale depending on household size and income. In FY 1992, about 25.4 million persons received food stamp benefits, averaging \$69 per person per month.

Other more targeted food assistance programs include food distribution programs (Commodity Distribution to Charitable Institutions, Commodity Donations to Soup Kitchens and Food Banks, Nutrition Program for the Elderly, The Emergency Food Assistance Program, Commodity Supplemental Food Program, and Food Distribution Program on Indian Reservations), child nutrition programs (National School Lunch Program and School Breakfast Program, Special Milk Program, Child and Adult Care Food Program, and Summer Food Service Program), and the Special Supplemental Program for Women, Infants, and Children. Participation in the FSP does not preclude eligibility in these targeted programs, which typically have less restrictive income eligibility requirements than the FSP. For example, FSP restricts income eligibility to gross income of 130 percent of the poverty threshold and net income less than 100 percent of the poverty threshold, while the Special Supplemental Program for Women, Infants, and Children allows up to 185 percent of the threshold. The National School Lunch Program and School Breakfast Program provide free meals to those with household income below 130 percent of the poverty threshold and reduced-price meals to those between 130 and 185 percent of the poverty threshold.

The table illustrates examples of the potential for multiple program participation and overlap of benefits. For example, a household of two adults, a 10-year old, and a 9-year old without income is potentially eligible for \$5,684 per year in food assistance, including \$4,440 in food stamps and \$1,244 from other programs. This household could receive a 28-percent increase over its FSP benefits. The table illustrates other households that could receive a greater benefit increase. Of course, total benefits depend on the household's participation decision, income, and deductions, and will typically be less than the maximum benefits depicted in the table.

At Stake. It is unclear whether or not multiple program participation indicates unnecessary benefit duplication. More work is required to assess the extent of multiple program participation and associated budget costs and nutritional and health benefits. It is easy to determine potential overlap by examining program regulations, but no one knows the current extent of overlap in participation and benefits levels. The most recently available published data are from the 1984 Survey of Income and Program Participation conducted by the Census Bureau. These data suggest that about half of all FSP

households participated in other food assistance programs. About 44 percent participated in the National School Lunch Program and 9 percent participated in the Special Supplemental Program for Women, Infants, and Children.

A major consideration in the evaluation of program overlap is an assessment of the adequacy of food stamp allotments. If FSP allotments are deemed adequate to meet the needs of all households, then program overlap could be wasteful. On the other hand, if allotments are deemed inadequate, then multiple program participation might provide a necessary supplement for household members, such as infants at risk of malnutrition. Benefits from supplemental programs may or may not reach the intended family member. Thus, some assessment of the effectiveness of alternative benefit delivery mechanisms to target individuals at risk is also needed. Also unknown is the number of needy people who do not participate in the FSP (homeless, disabled, and others) who might be reached by distribution programs. The ability of food programs to meet individual needs and to target benefits to the appropriate recipients must be weighed against the efficient use of tax dollars.

Alternatives. If warranted, legislation and regulations could be written to prevent multiple program participation, adjust benefit levels, or consolidate programs.

Agenda. The FSP is likely to be reviewed during the 1995 farm bill debate. However, the philosophical idea of food program consolidation is a part of the more general concept of consolidation of welfare programs, debated for many years. More analysis is needed to assess the extent of multiple program participation and associated costs and benefits.

Information Sources. Two U.S. Dept. of Agriculture, Food and Nutrition Service, bulletins: *Multiple Program Participation Among Food Stamp Recipients*, 1988, and *Food Assistance Programs*, 1992.

Examples of potential multiple program participation and overlap of food assistance benefits
Benefit overlap may exceed 44 percent for some households.

Program	Household composition ¹		
	Two adults (male/female), one 9-year old, and one infant	Two adults, one 10-year old, and one 9-year old	Adult female, one 10-year old, one 9-year old, and one infant
	<i>Annual benefits (dollars)</i>		
Food Stamp Program	4,440	4,440	4,440
National School Breakfast Program ²	179	357	357
School Lunch Program ²	346	692	692
The Special Supplemental Program for Women, Infants, and Children ³	720	0	720
The Emergency Food Assistance Program	195	195	195
Total	5,980	5,684	6,404
	<i>Percent</i>		
Benefit overlap (percent of FSP)	32	28	44

¹Assumes no household income and program data as of January 1993. ²Each free school breakfast and lunch is reimbursed \$0.945 and \$1.83, respectively, including \$0.14 in entitlement commodities. If the average number of school days is 189, a child can receive benefits valued at \$179 and \$346, respectively. ³Food costs only. Includes mother and infant.

WIC Program Expansion

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Issue. The Clinton Administration has requested increased funding for the Special Supplemental Food Program for Women, Infants, and Children (WIC) over the next several years to allow participation by all targeted individuals. While support for increased funding is strong, it is likely to raise a number of program operation issues. These issues arise from differences in income and nutritional risk criteria used for eligibility, food benefit distribution methods, and tailoring of food packages among States. These operational differences have evolved over the years in an effort to maximize program effectiveness with limited funds. Additional funds are likely to exert pressure for more uniformity among States.

Context. The WIC program provides supplemental foods, health care referrals, and nutrition education at no cost to low-income pregnant, breastfeeding, and nonbreastfeeding post-partum women, and to infants and children up to 5 years of age who are found to be at nutritional risk. The Food and Nutrition Service (FNS) provides grants to States to provide food benefit packages and services under general guidelines. To maximize program effectiveness, participation is rationed based on nutritional risk criteria. Those at higher risk, such as pregnant women and infants, are given higher priority and those at lower nutritional risk, typically children and nonbreastfeeding post-partum women are given lower priority.

The WIC program has been one of the most popular and successful domestic food assistance programs, in part, due to the targeting of the benefit package and the participants. A 1990 U.S. Department of Agriculture (USDA) study found that each dollar spent through WIC on very-low-income pregnant women participating in Medicaid saved the Federal Government between \$1.77 and \$4.75 in Medicaid costs for newborn children and their mothers. Definitive studies on the benefits for children are not available, but few argue with the overall success of the program.

States are allowed some flexibility in income and nutritional risk eligibility criteria, tailoring of food packages, and alternative channels of benefit delivery. All but two States use the maximum income eligibility criteria, provided by Federal regulations, of 185 percent of the poverty level. The food items provided include milk, cheese, fruit/vegetable juices, infant formula, eggs, cereals, dried peas and beans, and peanut butter. Although FNS establishes the maximum prescribable amount of each food by regulation, actual food packages may vary within approved limits. Additionally, the method of food benefit distribution varies among States. Some States provide commodities directly, while others provide vouchers for redemption at retail outlets. The vouchers may restrict purchases to particular brands or container sizes, as is the case with infant formula, or specific varieties of fruit/vegetable juice.

During the past decade, program funding and participation have increased sharply. Since 1982, participation and budget have increased 148 percent and 188 percent, respectively. Even with this rapid growth, however, the program's budget level does not allow all eligible individuals to participate. As a consequence, States have undertaken a number of cost-saving measures. Between 1988 and 1993 the average cost of a WIC food package declined from \$33.28 per person per month to \$29.82, while the Consumer Price Index for food at home increased over 20 percent. The major cost-saving measure has been the negotiation of infant formula rebates in all States. In 1992, rebates averaged \$1.52 per 13-ounce can of concentrated formula.

At Stake. The FY 1994 WIC budget is \$3.21 billion, up 12.2 percent from 1993. The FY 1995 budget proposal provides for continued expansion. The actual cost of full funding for WIC is likely to be a moving target and difficult to project. Estimating the eligible population has always been difficult due to the combined income and nutritional risk criteria. In 1991, overall program coverage was estimated to be about 60 percent. In particular, about 85 percent of eligible pregnant women and 90 percent of eligible infants participate. Young children will benefit the most from program expansion.

The effect of potential changes in program operations is unknown. Increased funding may reduce some cost containment activities currently undertaken by States. For example, those with stricter income and nutritional risk criteria may become more lenient. Food packages may also change and become more standardized.

Major factors to be considered in WIC expansion include:

- (1) the nutritional status of low-income women, infants, and children;
- (2) the ability of WIC to reduce Medicaid and other health care costs as a tradeoff;
- (3) the budget deficit; and
- (4) differences in program operations among States.

Alternatives. Some argue that WIC food benefits provide the incentive for the targeted at-risk population to participate in medical care programs and that it is the medical care which provides the biggest benefit to program participants. If recipients consider medical care more important than food supplements, a program focusing on care might provide more benefits or alternative incentive mechanisms might be investigated.

Expanded funding for WIC would allow increased participation of eligible nonparticipants. This group is comprised mostly of children 1-5 years of age. If the program is expanded, policymakers may also want to address the issue of variation among State WIC programs and make the programs more uniform nationwide.

Agenda. The 1994-97 budgets provide for WIC expansion. How regulations will address the issue of program variation among States and its implications for program costs is uncertain.

Information Sources. U.S. Department of Agriculture, Food and Nutrition Service. *Food Assistance Programs*, Program Information Report (Keydata), Sept. 1993, and B. Devaney, L. Bilhmeimer, and J. Schore, *The Savings in Medicare Costs for Newborns and Their Mothers from Prenatal Participation in the WIC Program*, FNS study conducted by Mathematica Policy Research, Washington, DC, 1990.

WIC program costs and participation levels, fiscal years 1980-93

Fiscal year	Participation level	Total cost	Average food cost per person/per month
	<i>Number</i>	<i>Million dollars</i>	<i>Dollars</i>
1982	2,189,031	948.0	28.78
1983	2,536,963	1,123.4	29.62
1984	3,044,772	1,386.0	30.58
1985	3,137,986	1,487.6	31.69
1986	3,311,670	1,580.5	31.82
1987	3,429,412	1,677.6	32.68
1988	3,592,833	1,795.4	33.28
1989	4,118,575	1,906.0	30.14
1990	4,516,870	2,115.6	30.20
1991	4,892,630	2,301.1	29.80
1992	5,427,311	2,597.7	30.07
1993	5,919,101	2,818.5	29.82

Changes in Commodity Distribution and Food Assistance Programs

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Issue. The U.S. Department of Agriculture (USDA) currently spends nearly \$1.4 billion each year to purchase, store, and transport commodities for distribution to schools, other institutions, and needy persons as an integral part of domestic food assistance programs. Commodity distributions were conceived to fulfill agricultural and nutritional assistance goals. However, recent concerns about budgetary costs, farm policy, consumer choice, and nutrition assistance objectives have raised questions as to the most effective mechanisms for achieving these sometimes competing goals.

Context. Commodity distribution programs originated in the 1930's as a means to distribute surplus farm commodities acquired through government price stabilization and farm income support programs. The intent of these programs was twofold: (1) to remove price depressing surpluses from the market and distribute them through channels that would not interfere with normal commercial sales and (2) to provide nutritious foods to children and needy persons.

The Federal Government uses three basic funding mechanisms to distribute commodities to the various assistance programs: (1) budget appropriations, which allow foods to be purchased as necessary for specific programs; (2) funds legislated by Section 32 of the Agricultural Adjustment Act of 1935, which appropriate 30 percent of the import duties imposed on all commodities (agricultural and nonagricultural) to purchase surplus nonbasic perishable commodities other than corn, cotton, peanuts, rice, tobacco and wheat; and (3) Section 416 of the Agricultural Act of 1949, which permits the Commodity Credit Corporation (CCC) to donate uncommitted surplus commodities from price support programs to the food assistance programs. These foods are primarily distributed to schools but are also distributed through other programs.

There are two types of commodities: entitlement and bonus. Entitlement commodities are commodities procured with appropriated funds and required by program regulations. For example, annual School Lunch Program legislation mandates that each participating school will receive commodities valued at a prespecified level for each meal served. Entitlement commodities accounted for about three-fourths of the value of all commodities distributed in FY 1992. Bonus commodities are surplus or price-support commodities that are donated to feeding programs in addition to the entitlement commodities. By definition, bonus commodities cannot be assessed against the level of entitlement and in this sense are net increments in program benefits. Surplus commodities are perishable nonbasic commodities purchased by USDA, usually with Section 32 funds, to stabilize prices in markets that are depressed by short-term or seasonal phenomena. Price-support commodities are acquired by the CCC as necessary to support minimum price levels for specified commodities.

The Child Nutrition Programs (CNP) are the largest outlet for USDA commodities. Entitlement and bonus commodities valued at \$736 million were distributed in FY 1992 (see chart). The Emergency Food Assistance Program (TEFAP), which provides donated foods to families and individuals, is currently the second largest commodity-based assistance program. In 1992, TEFAP distributed only \$191 million worth of food.

At Stake. Some 30-40 million persons comprising between 12 and 16 percent of the population receive direct benefits from the commodity distribution programs. The National School Lunch Program (NSLP) alone serves over 25 million children. In addition, the commodity distribution programs support producers of over 50 domestic food commodities.

The broad objectives of price stabilization and income support for farmers and nutrition assistance for consumers often conflict with one another. Since USDA and the recipient States must pay for transporting, handling, and storing the surplus foods, critics of the programs cite the added costs of distributing surplus commodities as counterproductive. Some of these costs may be underestimated because expenditures for such services are not explicitly included in the annual budgets. As such, these programs may not represent the most efficient means of delivering nutrition assistance to the needy. Further, these critics argue that specifying the kinds and amounts of food that will be delivered to program recipients represents an unwarranted and unnecessary intrusion into the decisionmaking functions of the individual and often conflict with the nutrition objectives. In addition, the availability of commodities, particularly bonus commodities, for use in nutrition programs is often subject to the uncertainties in particular commodity markets.

Supporters maintain that the present programs provide beneficial assistance to needy people who may not have access to food from other channels. The commodity distribution programs provide a useful outlet for surplus commodities that would otherwise be wasted. This is especially true of the bonus commodities that are distributed each year. As long as the Federal Government must acquire farm commodities as a means of stabilizing prices and supporting farmer income, distribution of such commodities through food assistance programs represents an economical and humanitarian means to prevent waste and improve nutrition.

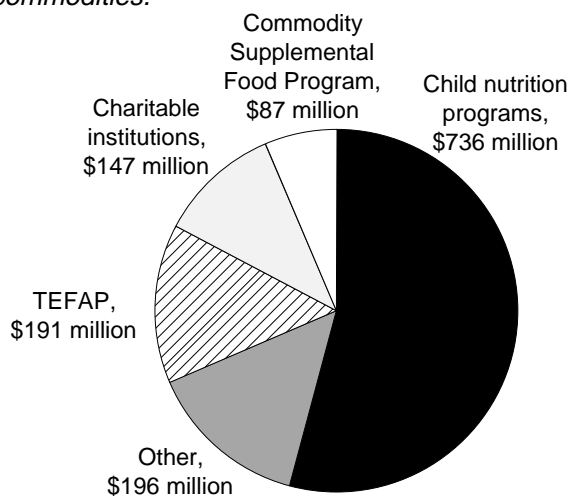
Alternatives.

- (1) Make no changes; keep the programs operating at the present rate.
- (2) Change the amounts and kinds of commodities purchased.
- (3) Change the mix of commodities to more closely meet the needs or desires of the recipients.
- (4) Change the administrative or operational functions of the commodity procurement and distribution programs.

Agenda. To change either the method of delivering benefits to recipients or the annually prescribed level of entitlements in the commodity distribution programs would require congressional action and also revision of USDA regulations. Congress must initiate changes in the program charters or revise its annual appropriation bills in order to increase or decrease the total amounts of entitlement commodities distributed. However, the distribution of bonus and the mix of entitlement commodities is not subject to congressional review and can be varied within a wide range of latitude by the Secretary of Agriculture.

Information Sources. Two U.S. Dept. of Agriculture, Food and Nutrition Service, Program Information Division reports: *Program Information Report*, monthly, and *Food Program Update*, quarterly.

Value of commodities distributed, by program, FY 1992
Child nutrition programs represented nearly 60 percent of the total value of USDA-distributed commodities.



Total for all commodities = \$1.357 billion

Value of commodities distributed, 1982-92
Bonus commodities declined as entitlements rose.

