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WHAT ECONOMISTS CAN CONTRIBUTE TO FOOD SAFETY POLICY ANALYSIS

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The food safety system - it does not get much respect these days. The food industry is critical of the system because it is too rigid, promotes inefficiency, restrains trade, stifles progressiveness and increases production costs as a result of too much public intervention. But, the consuming public is just as vocal about the need for more protection. They point to the increased reliance on chemicals and drugs of questionable safety to produce, process and preserve food, and discuss the need for safe and wholesome food to promote a healthy life. And they display great knowledge about the implications of complex food production and processing technologies to food safety. But, the problems do not end there. Now, regulators are exploring means to shift the incidence of food safety inspection cost directly upon users. These controversial issues are requiring policymakers to reexamine our food safety rules and try and develop a comprehensible and workable food safety policy.

Many of those food safety complaints have little to do with safety, per se. All of us are well aware that we do not have and cannot realistically expect to have an absolutely safe food supply for each and every man, woman, child and food animal in this country. We don't even possess the scientific knowledge to undertake such a task. Instead, we are confronted with several market performance problems that several interest groups believe have not been reasonably resolved through years of public intervention. We still want regulatory safeguards to prevent the sale of unsafe and unwholesome food. But there is general dissatisfaction with efficiency and equity performance results from public intervention.

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This is where the economists can play an important role - by identifying the performance issues, analyzing the alternatives for each and providing timely and relevant information to policymakers.

Let us turn to some of these issues and see what the economists might contribute.

First, policymakers need economic information about the potential benefits that might be realized from the commitment of more public and or privately owned resources to food safety. At present, there is no framework available to identify those possibilities. Nor do we have estimates of the potential benefits involved. Instead, there are opinions and some factual data about whether or not emphasis should be placed on a reduction of drug and chemical residues, or allergens, or pathogens, or carcinogens, or dirt or some particular food additive with an unpronounceable name found in food. No wonder there is considerable confusion over what direction food safety policy should take.

Economists and biological scientists can bring order to this dilemma by identifying and agreeing upon the more important safety problems. Then, they can proceed to establish priorities by developing estimates of the economic losses or potential benefits involved for each. With this information, the policymaker is in a position to devise plans for the achievement of national food safety goals.

Before leaving the topic of benefits, it should be noted that economists are very capable of assessing benefits of the current food safety programs. Many have been in effect for years. Our knowledge has improved immensely about the cause of the health hazards these programs were designed to prevent. Consequently, we suspect some of the programs are providing few benefits compared to what was originally anticipated. Other programs might be modified to provide even greater benefits at the margin. This is an area of work we are beginning to undertake on

a small scale in ERS. For example, we are estimating the benefits from condemnation of food animals for certain diseases once suspected of presenting a serious health risk to humans.

Discussion of costs with benefits provides the policymaker with far more relevant decisionmaking information. Although the cost side of food safety has captured most of the attention of economists in recent years, the opportunities for additional contributions have not been exhausted. First, there is the need to develop cost effective policy options. In ERS, we are just beginning to explore the alternatives for the new food animal total residue avoidance program. The purpose of the program is to eliminate residues of drugs and chemicals at toxic levels in animal products intended for consumption by humans. Economists are expected to play a leading role by identifying alternatives, describing the commodity and product flow networks by specie, identifying residue control points, developing and assessing the cost of control strategies, determining potential outcomes and identifying those alternatives that are not only cost effective but can be primarily carried out by the private sector. At this time a similar effort focusing on curbing or eliminating the presence of pathogenic organisms in food animal supply channels is also being considered.

There are several other unresolved food safety issues that need the attention of economists. One is the need for a practical and inexpensive animal identification system. At time of slaughter, animals may have excessive drug residue levels, but animal ownership can't be traced back to the responsible party. Packers or other producers have to bear the economic loss from condemnation instead of the guilty party. We still need a cyclic review program to reassess the safety of drugs and chemicals of long standing use by new and more sophisticated assay methods. But a thorough economic analysis is needed to determine what the impacts of alternative measures might be on test costs and

prices of drugs, which drugs might be withdrawn for safety or cost reasons and how productivity of the agricultural sector might be affected.

Our current food safety programs and procedures need to be evaluated for their cost effectiveness. Many have remained unchanged for years. The assessment should indicate how productivity can be increased, not only for the safety procedure in question, but for the food process subject to the procedure. Some possible areas for research are animal slaughter and processing line inspection techniques and food processing quality control methods. For example, line inspection techniques can be the constraining factor on plant output thus increasing operating costs. Economists can assist in assessing the cost burden of the current techniques and provide recommendations on needed improvements.

Shifting more of the food safety responsibility and cost to the food industries is another policy issue of current interest. But, there is little information available as to what functions can or should be shifted to the private sector, what functions should remain with the public sector and what the impact might be on the incidence of food safety costs and benefits. A considerable amount of economic analysis is needed to determine what the costs are by function, are the functions really needed, can they be done more efficiently, what might shifts of responsibility do to the structure of the affected industries, how should safety performance be monitored and what incentives are needed to ensure a preferred level of performance. An equity issue is whether or not a disproportionate share of the cost of safety might be borne by those least able to afford it.

It is argued, at times, that use of more incentives and/or greater penalties would encourage the food industry to adopt measures to achieve a high level of food safety regulatory compliance at a minimum of direct expense to the public. Economists could assess these options in terms of their practicality, cost and

possible performance. Some suggested ideas include a level of public intervention surveillance commensurate with observed firm performance with the firm bearing the cost for the service, higher civil penalties for bad performance and use of the media to publicize the names of poor performing firms. In effect, let the market discipline firms through provision of information to consumers and police those firms that cannot be trusted to behave responsibly.

It is alleged that much of the food safety problem originates with too much reliance upon chemicals and drugs used by the food commodity producing sector. At times, substances are proposed for withdrawal by FDA or EPA, because of the potentially large social costs associated with their continued use. What is less understood by many is the important contribution or benefits chemicals and drugs make to the world's food supply. Several studies have been made by economists to estimate the domestic impacts from the withdrawal of a few substances. Although the results have had an influence upon the regulatory decisions made in some cases, there is a need to broaden our analytical capability. For example, the economic effects of using substitute substances or practices for the suspected substance are often ignored which inflates the impact values. International market impacts can't be identified, regardless of what country initiates the regulatory action. Nor can regional impacts within the U.S. be estimated with existing models.

The U.S. and the world are about to benefit from the first substances to be produced by recombinant DNA methods. We find ourselves in need of an analytical framework to assess the economic costs and benefits for safety regulations governing the approval of these new substances for agriculture and food processing.

Food safety is more than just a U.S. issue. Many foreign countries, who are major importers of food and agricultural commodities from the U.S., are busy revising their safety standards based upon the aspirations of their people. We are finding the goals of the several countries increasingly in conflict with one

another, including our own which may have important consequences on our ability to trade. Here is another situation where economists have the capabilities to provide timely and thorough assessments of the economic impacts of food safety decisions by foreign countries upon U.S. agriculture and food processing.

The growing awareness of individuals about their health status and dietary needs has introduced another food safety policy issue with economic implications. Instead of being satisfied with a standard safety threshold set by the government, people want additional safety information about food upon which to base their purchase and consumption decisions. This information includes specifics on ingredients, nutrients and potential hazards from consumption of any one of them. Providing such information by type of food and brand as well would require recurring use of expensive assay analysis and use of new and costly information presentation methods. Economists are now beginning to focus attention on the problems of estimating the value of information and determining cost effective means of presentation. Once these methods are available, it should become possible to provide a large proportion of the population with much of the food safety information they need to exercise their preferences in the food marketplace.

In summary, economists have not had an extensive role in food safety policy analysis. As more of these issues center on economic considerations, the economist has a growing opportunity to make numerous and valuable contributions that should help policymakers develop a rational food safety policy.