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Food Companies Offer Views of Safe Handling Label for Meat and Poultry

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Microbial foodborne illness inflicts significant burdens on society. According to food-safety researchers, there are between 6.5 million and 33 million cases of microbial foodborne illness in the Nation annually—500 to 9,000 of these cases result in death. USDA's Economic Research Service (ERS) estimated the cost of illness (medical costs, time lost from work, and loss of life) of seven foodborne pathogens associated with meat and poultry products to range from \$4.5 billion to \$7.5 billion in 1993.

Food safety is a pressing issue for the Government, food manufacturers, retailers, and consumers. New Federal regulatory initiatives include USDA's requirement to have a label with safe handling instructions placed on packages of raw or partially cooked meat and poultry to provide food preparers with information on safe practices, USDA's Hazard Analysis and Critical Control Point (HACCP) regulation to prevent meat and poultry contamination in meat and poultry establishments, FDA's seafood HACCP regulation to reduce seafood contamination, and FDA's 1993 Food

Code to prevent food contamination in retail stores or foodservice facilities.

A recent ERS study was conducted to explore the views of meat and poultry processors and supermarket retailers concerning USDA's proposed rule mandating safe handling labels on meat and poultry and the regulation's impacts on firms. The findings shed some light on the diversity of firms' attitudes and responses toward Government food-safety policies and initiatives. Knowledge of these views and attitudes is instructive for the design and implementation of future food-safety initiatives as Government-firms' interactions can influence regulatory processes and outcomes.

The companies and trade associations examined in the study generally supported the goal of providing consumers with safe food handling information. Yet at the time, many were concerned about compliance costs, scope of products covered under the regulation, adverse marketing effects, and effectiveness of the label in reducing foodborne illness. Moreover, many did not believe the safe handling label would reduce product liability or generate greater sales of fresh meat and poultry. The promulgated regulation reflected USDA's consideration of some of these concerns.

The Safe Handling Label Regulation

On May 27, 1994, USDA's regulation requiring safe handling instructions on raw or partially cooked (that is, uncooked or not processed to the status of ready-to-eat) meat and poultry products took effect. The safe handling instructions were designed to reduce the risk of foodborne illness attributable to unsafe handling, preparation, and storage of meat and poultry products, both at foodservice facilities and in private kitchens. All raw or partially cooked comminuted (ground, chopped, flaked, minced) meat and poultry products carried the label starting May 27, 1994, while other raw or partially cooked products were labeled beginning July 6, 1994.

The label is mandated for products packaged and labeled in USDA- or State-inspected processing plants and at retail stores, regardless of whether the products are distributed to retail stores or to foodservice facilities (such as restaurants and hotels). The regulation specifies the label's language and format, based on the results of a USDA focus group study of consumers. Participants in the focus group study expressed a preference for package instructions over pamphlets or instore signs; they also felt that an explanation of the importance of safe handling was a necessary part of the label.

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USDA estimated that every 1-percent reduction in illness due to unsafe handling and cooking of raw meat and poultry would result in societal benefits between \$38.8 million and \$43.3 million each year from savings in medical costs, time lost from work, and loss of life. As for the cost of the regulation, USDA's preliminary estimate was \$37.5 million to \$75 million per year, to be incurred by retail stores for adding text of the instructions to existing labels. In response to comments to the proposed rule, the cost estimate was later increased to include also processor costs, purchase of new equipment, and labor. For all processors and retailers, the revised cost estimate ranged from \$76.1 million to \$92.1 million per year. USDA found no quantitative estimate of the effectiveness of such a label on safe handling practices. Under these benefit and cost estimates, societal benefits would exceed costs to the industry if foodborne illness was reduced by 3 percent or more.

Industry Response to Microbial Food-Safety Initiatives

The level of food safety due to microbial exposure may be less than socially desirable if left to market forces. While more safety generates economic benefits to society, in terms of the reduced cost of illness, it may not provide adequate financial returns to individual firms for their additional costs. It is difficult for individual firms to market a product or brand based on its superior safety, and one firm's promotion of food safety may be construed as impugning the safety record of its competitors. Whether a food item has pathogens and how likely the food is to be a vector for pathogens that cause human illness is not usually observable by either its producers or consumers. Also, pathogens

can enter, multiply, and grow in food during production, handling, preparation, and storage. As a result, the cost of complying with a microbial food-safety regulation may be more obvious than its potential gains to individual firms. Regulations can be used to enhance public health by helping to ensure that the foods consumers purchase in the market are as safe as possible and that information is provided to food preparers so they can handle foods in a manner that reduces the risk of foodborne illness.

The financial impacts on firms can be substantial when the links between food and illness are identified and severe illness is experienced. These financial impacts can include product liability compensation, product recalls, efforts to restore customer confidence and company market share, and other expenses. However, identifying the source of a foodborne illness is often difficult, except when the illness is diagnosed shortly after the suspected food was eaten and the illness-food linkage is confirmed. Many times foodborne illness symptoms are mild and short-lived. Thus, some firms may perceive microbial food-safety prob-

lems to pose a less severe threat to the product liability of a firm than do other product problems (for example, physical contaminants such as broken glass) since the food-illness linkage may not always be established.

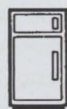
Information Gathered From Processors and Retailers

To learn more about food companies' reactions to the safe handling label requirement, we collected information from two different sources: (1) a pilot survey of eight meat and poultry processors and nine supermarket retailers, and (2) a review of about 200 comments received by USDA during the comment period on the proposed rule.

In the pilot survey, two versions of a 15-minute questionnaire were mailed in late May 1994 (the same month the regulation took effect) to 18 processors and retailers across the country that had agreed to participate. Most of the selected companies returned the questionnaire within a month, while one processor failed to respond.

Safe Handling Instructions

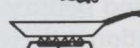
This product was prepared from inspected and passed meat and/or poultry. Some food products may contain bacteria that could cause illness if the product is mishandled or cooked improperly. For your protection, follow these safe handling instructions.



Keep refrigerated or frozen.
Thaw in refrigerator or microwave.



Keep raw meat and poultry separate from other foods. Wash working surfaces (including cutting boards), utensils, and hands after touching raw meat or poultry.



Cook thoroughly.



Keep hot foods hot. Refrigerate leftovers immediately or discard.

Three in each of the processing and retailing sectors were chosen among the largest 25, the 26th through 50th largest, and 51st through 100th largest firms, according to sales rankings reported in trade publications. The combined sales of these selected processors in 1993 amounted to \$23 billion, or about 60 percent of the total industry sales. Supermarket retailers in this pilot survey accounted for \$23 billion, or 8 percent of all supermarket sales, in 1993.

The processors and retailers were asked to express their views about the immediate and long-term impacts of mandatory labeling on their company such as compliance costs, products sales, and legal implications. They were also asked about their current activities related to microbial safety of meat and poultry products. Questions in the pilot survey were selected on the basis of prior research on firms' reactions to Government regulations. No proprietary company information was requested. The designated respondent was the person(s) most responsible for, or knowledgeable of, food-safety matters in the company.

In addition to information collected from the pilot survey, comments received by USDA during the public comment period of the proposed rule for mandatory labeling were also reviewed. More than 200 food companies and organizations representing food industry members submitted comments to USDA.

Due to the voluntary nature of the comments and the limited number of firms included in the pilot survey, the findings should not be construed to be necessarily representative of industries' or their members' views. But taken together, findings from these two sources of information serve to illustrate the diversity of perceived impacts of the labeling requirement by food companies prior to the final rule.

Compliance Costs and Product Coverage Worried Companies

Many companies and trade associations examined in this study shared concern about microbial food safety and emphasized their commitment to providing consumers with safe and wholesome foods. They also endorsed the idea of providing consumers with necessary information to handle and prepare food safely. Yet, there were different opinions between them on details of the regulation.

Some firms, particularly retailers, commented that label redesign and printing would actually cost more than USDA estimated. Some firms also commented that new or modified weighing/wrapping equipment would be necessary. Additionally, applying the label would increase labor costs. In response to these comments, in the final rule, USDA broadened its cost estimate of the regulation to include equipment, labor, and costs to processors.

Some commenters also argued that the label should be required only for comminuted products, rather than for all raw meat and poultry products. Part of the concern was due to costs. As stated in USDA's regulation proposal, the regulation would affect 50,000 to 100,000 different labels placed on 15 billion packages of meat and poultry each year (with two-thirds of them packaged and labeled at retail). Perhaps more importantly, comminuted products only account for about 10 percent of all meat and poultry packages labeled at retail stores. Hence, some retailers felt their compliance costs would be lessened if the label was mandated on comminuted products only.

The concern about requiring the label for all raw meat and poultry products was also perhaps related to the evidence used in the proposal to justify the regulation. USDA cited nine foodborne illness incidents re-

lated to hamburgers or ground beef contaminated with the *E. coli* O157:H7 pathogen as the rationale to initiate the regulation. Some commenters argued that many noncomminuted products, such as frozen entrees or dinners, contain fully or partially cooked meat and poultry and already carry cooking instructions. These commenters said safe handling labels should not be required on these products.

When asked about the potential impacts of labeling requirements, "higher operating costs" in the short term (less than 1 year) and the long term (1 year or more ahead) were selected by 9 and 8 of the 17 respondents in the pilot survey, respectively (table 1). This view is consistent with comments received by USDA in response to the proposal. The responses may also suggest the extent of compliance costs actually incurred by the respondents as the survey closely coincided with the effective date of the regulation.

Companies' Perceived Marketing Effects

Several of the companies commenting to USDA during the rule-making process were concerned about a part of the label saying these products "may contain bacteria that could cause illness." In their view, the statement constituted negative information or a scare tactic that may undermine consumer confidence in products bearing the label.

The pilot survey also elicited opinions about the potential impacts of USDA's label requirement on short-term and long-term consumer confidence and on sales of uncooked meat and poultry products (table 1). Among the 17 respondents, 8 thought the label would improve consumer confidence in their uncooked meat and poultry products but would not necessarily improve sales of these products in the short

term or long term. None of the respondents anticipated more sales in the short term due to improved consumer confidence, while two anticipated higher long-term sales from improved consumer confidence. In comparison, five respondents felt the label was likely to weaken consumer confidence in their uncooked meat and poultry products (four in the short term and one in the long term), but would not necessarily reduce sales. One respondent felt the worsened consumer confidence would hurt sales of uncooked products in the long term.

In addition, two of the respondents thought the label could increase long-term sales of their cooked meat and poultry products because consumers would buy fewer uncooked products (table 1). One respondent was concerned that sales of cooked products could decline in the long term as consumers become suspicious of the safety of all cooked and uncooked products.

Companies Questioned Effectiveness of the Label

A number of companies that made comments to the USDA during the rulemaking process indicated that their own research suggests that consumers are more receptive to positive and specific educational messages. Some comments stated there are effective alternatives for reaching consumers other than the mandated label. Many firms had their own consumer food-safety information activities, such as providing pamphlets, other point-of-sale information in the stores, and handling labels on products. Twelve respondents in the pilot survey said they would maintain or increase their own consumer information programs even after the handling label was instituted.

The inconsistency between USDA's safe handling label and the handling instructions that firms had

been using was another problem area. For example, some food processors, food retailers, and trade associations commented that their products were already labeled "keep frozen" and they feared USDA's label that states "keep refrigerated or frozen" might confuse consumers and compromise product safety. There were also some foodservice firms and trade associations that mentioned inconsistencies between the practices suggested in the label

and current industry good manufacturing practices. For instance, the label says that raw products should be kept refrigerated or frozen, while industry procedures specify frozen storage only. The final rule provided for flexibility to allow for specific industry practices.

Some commenters cited the lack of evidence to show that the proposed label would reduce unsafe food handling practices and lower the number of foodborne illness.

Table 1
Firms in the Survey Perceived Various Impacts of the Label Requirement

Likely impacts of the label requirement on the firm	Short-term impacts	Long-term impacts
Number of firms		
Higher operating costs	9	8
Improved consumer confidence in <i>uncooked</i> products but not necessarily improved sales	5	3
Increased sales of <i>uncooked</i> products as consumer confidence improves	0	2
Worsened consumer confidence in <i>uncooked</i> products but not necessarily reduced sales	4	1
Reduced sales of <i>uncooked</i> products as consumer confidence worsens	0	1
Increased sales of <i>cooked</i> products due to decreased sales of <i>uncooked</i> products	0	2
Reduced sales of <i>cooked</i> products due to suspicion of the safety of <i>all</i> products	0	1
Reduced consumer complaints, claims or lawsuits as foodborne illness becomes less likely	2	3
Other responses	1	4

Note: Short term is less than 1 year, long term is 1 year or more ahead. Multiple responses were accepted.

Some firms questioned whether consumers would read and understand the label language or symbols. Other firms felt USDA provided no evaluation of the label's potential efficacy.

Firms Expressed Doubts About Legal Benefits

In the pilot survey, respondents were asked if they expect USDA's safe handling label to reduce consumer complaints, claims, or lawsuits against the company because consumers are less likely to get sick from eating meat and poultry products sold by the firm. As shown in table 1, 5 of the 17 respondents thought the label would produce legal benefits for them in either the short term (2 respondents) or the long term (3 respondents). The lack of perceived legal benefits may be due to uncertainty about the effectiveness of the label and the difficulty of confirming the alleged source of illness.

Firm Costs and Benefits Varied

The diversity of firms' opinions of the labeling regulation is evident from the pilot survey in which respondents were asked to assess the regulation considering all of its impacts on the firm (table 2). In the short term, five respondents thought the regulation's total benefits to the firm would somewhat exceed its total costs, five thought the costs would somewhat exceed benefits, six felt that benefits and costs would be about the same, and one believed the costs would be significantly higher than the benefits. In the long term, six respondents foresaw somewhat higher benefits than costs, four felt the opposite, five did not antici-

Table 2

Respondents Assessed the Overall Impacts of the Regulation

Overall impacts on the firm	Short-term impacts	Long-term impacts
	Number of firms	
Significantly positive	0	0
Somewhat positive	5	6
Neither positive nor negative	6	5
Somewhat negative	5	4
Significantly negative	1	1
Don't know	0	1

Note: The impacts are positive if the regulation's total benefits on the firm exceed its total costs and negative if its total costs on the firm exceed the total benefits.

pate noticeable differences between benefits and costs, one believed the costs would be significantly higher than the benefits, and one respondent was not sure of the impacts.

The findings reported in this study suggest that if labeling were made voluntary, some firms would probably choose not to adopt the label, based on individual company costs and benefits. USDA justified a mandatory label requirement after determining that societal benefits exceeded total industry costs of labeling.

Despite the differences about details of the regulation, however, USDA and the industry share a commitment to enhance food safety and public health. Given the challenges faced by USDA and the industry in ensuring optimal microbial food safety, this common dedication can serve as a basis for more dialogue and collaboration between them in the pursuit of public as well as private interests.

Firms' perceptions of the label regulation and its impacts on them also highlight the difficulties both

public and private sectors face in dealing with microbial food-safety issues. More research and information sharing in areas such as costs of regulations, consumer behavior, and epidemiology will promote informed decisionmaking by the Government and the industry.

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