Public regulation of an industry is one of several major factors which has an impact on the volume, quality, and price of goods supplied by that industry.

The objective of this project was to design and demonstrate the use of scientific procedures for measuring the net cumulative costs and benefits of public regulation, as it affects ground beef, and to identify major issues for debate. The objective was not to make a case for or against deregulation of this or any other industry. Regulatory benefits were identified for consumer, labor, industry, agency, and society in general. Costs of regulation were determined to be either environment costs or compliance costs.

The Legal Environment

A systematic legal search procedure was designed and implemented to identify all federal, state, and local law which is related to the ground beef system. The body of law consists of statutes, regulations, and court decisions relating to ground beef production and distribution. A key-word legal search process identified over 200 statutes, 41,000 regulations, and 111,000 court cases impacting the production/distribution system.

Enforcement Costs

Enforcement costs are those costs accrued by the agency responsible for enforcing regulations, and include direct cost of inspection as well as indirect costs of administration. Thus, enforcement costs are, in theory, directly reflected by agency budgets.

The process of allocating agency budgets to the enforcement costs for ground beef was implemented. A preliminary estimate indicates that the cumulative cost of enforcement is in excess of 3.75 cents per pound.

Compliance Costs

Operators incur five types of costs (developmental, legal, capital investment, direct operation, administration) as they comply with regulation. Costs of compliance were divided into those due to regulation and those resulting from ordinary business practice, with the former set allocated to the ground beef share produced by that operator.

An estimate of the cumulative cost of compliance is approximately 4.29 cents per pound of ground beef.

Consumer Benefits

Many of the regulations studied were designed to provide benefits to consumers, even though the regulation had its direct impact at a point far removed from the consumer. Consumer benefits, in the areas of illness reduction, health improvement and maintenance, economics, shopping efficiency, are
derived from regulated business practices in the areas of product sanitation, product content, and marketing practices.

A consumer survey methodology was developed and used to have consumers place a quantifiable measure on a series of natural vectors which have no pre-established economic values. Two general variables were studied—willingness to pay for regulation, and consumer awareness of regulation. The methodology called for this measurement to be made in the context of the total regulatory environment.

The direct question technique of measuring consumer awareness of benefits and consumer "willingness to pay" as a basis for assessing economic benefits is based on an increasing body of knowledge. To determine the question areas used in the consumer awareness and "willingness to pay" survey, a Taxonomy of Areas of Business Activity where government regulation could be intended to produce consumer benefits was developed:

1. Raw material specification and identification activities associated with the decisions of production concerning product content.

2. Standards for preparation environment and raw material control activities required for production of a sanitary and wholesome product.

3. Information for fair trade and business practices associated with marketing.

Seven areas were selected for detailed study in the "willingness to pay" survey. The areas of consumer benefit were:

1. Safety from food borne illness
2. Lean/fat ratios
3. Nutrition labeling and specification
4. Grade and animal portion source of raw material
5. Correct weight
6. Fair price
7. Advertising

The questionnaire methodology was designed to be much broader than a simple direct question on willingness to pay. It included:

1. Eight areas of response for the question: "How effective do you think government regulation is in each of the following situations?" used as a measure of the level of consumer confidence in government regulations.

2. Seven areas of response for consumers to indicate what factors they rely on to reduce uncertainties in the purchasing process.

3. Consumer estimate of costs of compliance of government regulation and opinions of where dollars for regulation are spent.

4. Consumer estimate of "willingness to pay" and opinions of where dollars for regulation should be spent.

5. Demographic characteristics and purchasing behavior of each household.

The five questionnaire components were completed by 365 adults. Preliminary conclusions indicate clear issues for further study:

1. Consumers do not have confidence in government regulation to limit excess fat content or to insure fair prices. Consumers rely on visual inspection, comparison shopping, and store reputation in the area of fat content and fair price. If, in fact, the consumer lacks confidence in the regulation and has to
substitute other variables to reduce uncertainty in the purchasing process, a significant cost is occurring without corresponding benefits.

2. Although the consumer relies primarily on government regulation to insure an uncontaminated product, less than 50 percent are confident that such regulation is very effective.

3. Consumers are confused as to impact of grading and nutrition regulations on ground beef. They rely on regulation and have confidence in its effectiveness when in fact, regulation does not exist.

4. Considering all areas where regulation in fact does exist, it is relied on only to produce an uncontaminated product. In other areas, the business activities related to the consumer's shopping experience are more important than government regulation.

5. Notwithstanding the conclusion stated in 4 above, the consumer is willing to pay a significant portion (16 percent) of the retail price of ground beef to have the extra assurances provided by regulation. In no area (of those studied) does the consumer fail to allocate some expenditure to regulation.

6. Consumers' estimates of the actual costs of compliance and enforcement exceed only slightly their willingness to pay for regulation. This suggests a conclusion that benefits perceived by the consumer are similar to their perceptions about the actual costs of regulation.

7. Demographic and purchasing behavior characteristics of respondents generally are not associated with changes in responses to awareness and willingness to pay. It appears that the preliminary conclusion about consumer perceptions of regulation impact is similar for wide segments of the population.

Thus, consumers believe regulation costs are actually substantially higher than they probably are in reality, but are apparently willing to pay the higher costs, even though they are not fully aware of what is regulated or of the benefits of regulation. Further, they do rely on government regulation to reduce risk in some areas, even though regulation may not exist in the area, but are not very confident that the regulation is effective.

Footnote

1 From a larger study entitled Benefits and Costs of Public Regulation of Production, Processing, and Distribution of Ground Beef. Funded by National Science Foundation. Grant ARP76-18473. The results and conclusions presented here should be considered as preliminary and may or may not reflect the views of NSF.