AN OBJECTIVE METHOD OF DETERMINING THE RELEVANCY OF
PRODUCT CHARACTERISTICS

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Abstract
This paper describes a method based on empirical research for selecting product characteristics for inclusion in information disclosure policies. The theoretical model on which the method is based is outlined, and an application of the method using data on automobiles is described. Finally, the potential for use of the method by policy makers is discussed.

The consumer movement has resulted in increased interest by legislators and regulators in consumer information disclosure. Consumer information policy can be divided into two segments. The first segment of public policy is related to what Thorelli (1972) called consumer protection - measures which safeguard consumer rights, such as advertising substantiation and regulation of deceptive advertising. The second category relates to Thorelli's definition of consumer information - policy oriented to providing consumers with information for use in specific buying decisions. Examples of the latter type of policy include Truth-in-Lending, Fair Packaging and Labeling Act, care labeling regulations, unit pricing, nutritional labeling, and energy efficiency labeling.

It is reasonable to assume that interest in information disclosure will continue to be strong in the future. Yet it is also realistic to assume that the current thrust to limit government spending will continue. This suggests an even greater need in the future for a method by which to justify what information is to be included in information disclosure policies and to estimate the impact of such policies on consumer behavior.

Wilkie (1975) and Rhoades (1975) both suggest a decision process for designing information disclosure policy as:

Stage I: Selection of Product Classes
Stage II: Identification of Relevant Product Characteristics
Stage III: Development of Standards and Test Methods
Stage IV: Determination of Reporting Format
Stage V: Provisions for Dissemination
Stage VI: Assessment (Assurance) of Effectiveness

Both Wilkie and Rhoades suggest likely product classes as those purchased by a large proportion of consumers, high-ticket items, and hazardous products for which the expected opportunity loss from suboptimal choice is great. Both emphasize that selection of product characteristics should be based on the importance or relevance to the consumer of that information in comparing alternative brands, that information should be objective and/or performance related, and that selection of critical characteristics for technologically sophisticated products be based on empirical research.

Jacoby, Speller, and Kohn (1974), Wilkie (1974), and others have focused on the phenomena of "information overload," reinforcing the need for information included in a disclosure policy to be relevant. Miller (1956), Simon (1974), and Olson and Jacoby (1972) found that consumers use only about four to seven items of information in making a purchase decision. However, as Miller (1956) notes, these items of information may be either "bits" or "chunks." Miller suggests that the consumer may re-code individual items of information (bits) into higher-order units (chunks) which convey more meaning and are more easily recalled than bits of information. An information disclosure policy which facilitates the recoding of bits of information into chunks would enable the consumer to obtain more units of information that can also be more easily processed.

Conceptual Model
This paper presents one approach to developing an objective method for selection of product characteristics for information disclosure. The model of consumer reaction to product characteristics developed by Ladd and Zober (1977) is the theoretical basis of the objective method developed in this paper.2 The basic premise of the model is that consumer demand is a function of the consumption services provided by a product. Consumption services are defined as transformed bundles of product characteristics; product characteristics are objectively measurable elements of a product. Examples of consumption services are safety and durability; examples of product characteristics are weight and Vitamin C content. Product characteristics are of interest to the consumer only in that they combine to produce the consumption services from which consumers obtain utility.

2Ratchford (1979) has written a detailed analysis of the Ladd and Zober model. Interested readers may wish to peruse this article as well as Ladd and Zober's reply (1979).
The following assumptions are made:

1. Consumers obtain utility from consumption services.

2. The amount of each consumption service provided by a product is a function of the product characteristics obtained from a product.

3. The amount of a given product characteristic obtained from consumption of a product is a function of the quantity of the product consumed and the quantity of the product characteristic placed in or built into the product.

Using the above assumptions, constrained maximization, the Lagrange multiplier, and Kuhn-Tucker first-order conditions, the price of a product can be written as:

\[ \max_{\mathbf{q}} \quad \sum_{h=1}^{H} \sum_{i=1}^{I} p_i \frac{\partial q_i}{\partial q_h} \frac{\partial E}{\partial q_i} \quad \text{subject to} \quad \mathbf{q} = \mathbf{q}_0 \]

where \( s_{ih} \) is the quantity of consumption service \( h \) obtained from consumption of product \( i \), \( q_i \) is the quantity of product \( i \), \( E \) is expenditures, and \( p_i \) is the price of product \( i \). Expression (1) states that if product \( i \) is purchased, the price of the product equals the sum of the marginal yields of the consumption services provided by the product \( \mathbf{q} \) multiplied by the marginal implicit prices of the product's consumption services \( \frac{\partial E}{\partial q_h} \).

The relationship between product characteristics and consumption services can be used to develop a statistical procedure to identify consumption services provided by a product and to estimate implicit prices for these consumption services. With the assumption that consumption services and product characteristics are linearly related, the quantity of consumption service \( h \) obtained from one unit of product \( i \) can be written as:

\[ s_{ih} = \sum_{j=1}^{n} a_{jh} x_{ij} \]

where \( s_{ih} \) is the quantity of consumption service \( h \) in one unit of product \( i \) and \( x_{ij} \) is the quantity of product characteristic \( j \) in one unit of product \( i \). Then \( a_{jh} \) is the coefficient which relates the quantity of product characteristic \( j \) to the quantity of consumption service \( h \) obtained from consumption of product \( i \). Assuming the \( x_{ij} \)'s are known and objectively measurable and services are uncorrelated, factor analysis can be used to identify and estimate measures of consumption services provided by a product or \( s_{ih} \).

Using the estimated measures of consumption services obtained from factor analysis and known product prices, expression (1) can then be written as

\[ p_i = \alpha + s_{ih} \beta_h + \epsilon_i \]

where \( \beta_h \) is the estimated implicit price of consumption service \( h \) and \( \epsilon_i \) is the random disturbance. Through multiple regression, the values of the parameters, or the mean implicit prices of consumption service \( h \), can be estimated. The consumption services with the highest mean implicit prices can be viewed as those most valuable to the consumer or yielding the greatest utility. These implicit prices can then be used to approximate the potential value to consumers of obtaining information about consumption services.

The approach outlined here is limited to use with products for which there are a sufficient number of observations and objectively measurable product characteristics for analysis. The use of factor analysis requires a minimum of ten observations per variable or product characteristic to reduce indeterminacy (Nunnally, 1967). In addition, a rule-of-thumb in factor analysis is that one factor will be identified for each three to four variables submitted to analysis (Harman, 1967). Therefore, identification of only two consumption services requires a minimum of sixty observations. It is recognized that sufficient observations to apply the method are available only for a limited number of products. Availability of information from manufacturers could potentially increase the number of products for which the method is applicable.

Products which provide primarily subjective consumption services such as beauty or style present difficulties in measurement of product characteristics. Determination of objective values could however be obtained through consumer testing panels or similar testing techniques.

An Application

Methodology

The model outlined in the previous section is applied for automobiles. Data on 22 product characteristics were collected for 1976, 1977, and 1976 subcompact, compact, and mid-sized new automobiles. The sample size was 227 American automobiles (manufactured in the United States by American manufacturers). The primary sources of data were the 1976, 1977, and 1976 Consumer Reports annual automobile rating issues. The 22 product characteristics are listed in Table 1. V-engine cylinder design, automatic transmission, radial tires, power steering, hatchback, and front-wheel drive were binary variables with 1 indicating the presence of the characteristic.
TABLE 1. Results of the factor analysis.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Engine Power</th>
<th>Seating Comfort</th>
<th>Driving Convenience</th>
<th>Front Wheel Traction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine displacement</td>
<td>.901</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Horsepower</td>
<td>.902</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Engine revolutions</td>
<td>-.571</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Number of cylinders</td>
<td>.886</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V-design cylinders</td>
<td>.621</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gasoline mileage</td>
<td>-.808</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Curb weight</td>
<td>.550</td>
<td>.579</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Height</td>
<td>-</td>
<td>.912</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Front headroom</td>
<td>-</td>
<td>.871</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rear headroom</td>
<td>-</td>
<td>.768</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rear seating room</td>
<td>-</td>
<td>.687</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rear shoulder room</td>
<td>-</td>
<td>.903</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Number of doors</td>
<td>-</td>
<td>.872</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hatchback</td>
<td>-</td>
<td>.512</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Front shoulder room</td>
<td>-</td>
<td>.689</td>
<td>.570</td>
<td>-</td>
</tr>
<tr>
<td>Front legroom</td>
<td>-</td>
<td>-</td>
<td>.495</td>
<td>-</td>
</tr>
<tr>
<td>Automatic transmission</td>
<td>-</td>
<td>-</td>
<td>.624</td>
<td>-</td>
</tr>
<tr>
<td>Power steering</td>
<td>-</td>
<td>-</td>
<td>.845</td>
<td>-</td>
</tr>
<tr>
<td>Radial tires</td>
<td>-</td>
<td>-</td>
<td>.499</td>
<td>-</td>
</tr>
<tr>
<td>Steering factor</td>
<td>-</td>
<td>-</td>
<td>-.809</td>
<td>.641</td>
</tr>
<tr>
<td>Percent weight distribution</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.687</td>
</tr>
<tr>
<td>Front-wheel drive</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Percent of total variation of product characteristics explained by factors  
13.0  46.7  9.8  6.8

Total percent of variation explained: 76.3

NOTE: "-" indicates a factor loading of less than .475.

To reduce indeterminacy, product characteristics were examined prior to factor analysis with consideration given to their potential relationships to the consumption services expected to be identified. The variables suggested consumption services describing engine size or power, fuel economy, seating comfort, and driving convenience. 4 Measures of engine displacement, horsepower, curb weight, engine revolutions per mile, number of cylinders, and V-engine cylinder design were expected to relate to the power of automobiles. Engine revolutions per mile, horsepower, automatic transmission, and estimated mileage rating were expected to load on a factor called fuel economy. A factor describing seating room was expected from the measures of product characteristics relating to interior and exterior automobile dimensions. A factor relating information on the handling ability of automobiles was expected given measures of percent weight distribution on the front wheels, steering factor (a measure of the number of turns of the steering wheel required to make a turn of a thirty-foot radius), automobile size, power steering, automatic transmission, and front-wheel drive.

Results

The measures of product characteristics were factor analyzed to identify consumption services provided by automobiles and to estimate factor scores, composite indices of the amount of consumption services. In the factor analysis, four consumption services were identified: 5

4The taxonomy of "service characteristics" provided by automobiles offered by Maynes (1976, p. 552-554) was useful in suggesting the possible relationships between product characteristics and consumption services.

5Indices of factor similarity (Mulaik, 1972, p. 355) indicated that the consumption services identified were measuring separate effects.
Engine Power\(^6\) - describing the acceleration ability and power of an automobile.

Seating Comfort - describing the amount of seating space and ease of entry and exit of an automobile,

Driving Convenience - describing the ease of handling an automobile,

and Front Wheel Traction - describing the traction of the front wheels of an automobile.

Ordinary least-squares estimation was used to estimate mean implicit prices for each consumption service with list price as the dependent variable. List prices of the 1977 and 1976 models were adjusted to the 1978 price level to account for the effect of inflation.\(^7\)

A regression of the form

\[ p_i = \alpha + \beta_1 EP + \beta_2 SC + \beta_3 DC + \beta_4 FWT + \varepsilon_i \quad (3) \]

was performed, where EP, SC, DC, and FWT were the estimates of Engine Power, Seating Comfort, Driving Convenience, and Front Wheel Traction, respectively, obtained from factor analysis.

Results of the regression are presented in Table 2. The coefficients (which were interpreted as estimated mean implicit prices) of Engine Power, Seating Comfort, and Driving Convenience were positive and significant at the .01 level, implying that additional amounts of these consumption services increase the price of an automobile. The estimated mean implicit price of Front Wheel Traction was negative (-41.78) and significant at the .15 level, indicating that increasing the amount of that consumption service decreases the price of an automobile.

The negative estimated coefficient of Front Wheel Traction merits discussion. As noted in Table 1, only two product characteristics, percent distribution of total weight on the front wheels and the binary variable front-wheel drive, contributed significantly to Front Wheel Traction. Both of these variables loaded positively on Front Wheel Traction; that is, increasing the amount of either variable increased the amount of Front Wheel Traction. The introduction of front-wheel drive for a passenger or "family car" is a fairly recent event in the United States automobile market.\(^8\) Consumers who operated American automobiles in 1976-78 may have been unaware of advantages of front-wheel drive and may have regarded an automobile so equipped as one which requires special driving skills. Others may have regarded front-wheel drive as desirable only for those consumers who frequently drive on snow or ice. Consequently, the average consumer may indeed have regarded Front Wheel Traction to be an undesirable feature, and the negative estimated implicit price is a reflection of this sentiment.

**Identification of Relevant Product Characteristics**

If the criteria of highest estimated implicit price is used to determine the value of information to consumers on consumption services, the relevant product characteristics upon which information would be acquired are those with the highest factor loadings for Driving Convenience, the highest priced consumption service. From the results of the factor analysis, those are (in descending order of factor loading magnitude):

1. power steering
2. steering factor
3. automatic transmission
4. front shoulder room
5. radial tires
6. front legroom

\(^8\)The only automobiles in the sample equipped with front-wheel drive were 1978 models.
By the criteria of this method, the policy maker determining what items of information to provide about automobiles would consider information on Driving Convenience, the highest priced consumption service, to be of highest priority. Information on Driving Convenience would be provided through information about those product characteristics identified as most highly correlated to Driving Convenience. Agencies using this method to determine product characteristics to be included in an information disclosure policy would repeat the above procedure for each consumption service. The result would be a ranking of consumption services by estimated implicit price, and, for each consumption service, a hierarchy of product characteristics in order of correlation to the respective consumption services. Information presented in this format would not only objectively indicate to consumers the relative value of each item of information, but could also suggest relational rules to encourage consumers to recode "bits" of information about product characteristics into "chunks" of information about consumption services. These higher-order units of information would be fewer in number, contain more information in each unit, and would be more easily recalled by consumers.

Conclusions

The results of the application of the method described in this paper suggest the approach is potentially applicable for most information disclosure policies or programs. As suggested by Wilkie (1975) and Rhoades (1974), the approach provides for selection of product characteristics relevant to consumers through empirical research and for identification of performance-related characteristics. Decisions on standards for labeling, information content of advertising, and other consumer information disclosure policies could be made using the approach described here.

Agencies or organizations which rate products, such as Consumer Reports and Consumer's Research, could use the approach outlined here to determine what types of information to provide to consumers as well as the criteria by which to rate products. Local information systems or government agencies which distribute information to consumers could use the method to develop a listing of information on product characteristics in order of relevance to purchase decisions. In addition, the method has potential for use by business, specifically in advertising. Advertising campaigns could be designed with emphasis on consumption services, with secondary information on product characteristics related to those consumption services used to support claims.

This paper considers only the first two stages of an information disclosure program. As suggested by Wilkie (1975) the effectiveness of any program can be estimated only if consideration is given to the provisions for information dissemination as well. What will be the points of consumer exposure? Who will provide the information? What are the interests and abilities of the consumers for whom the information is intended? These and other important questions remain unanswered by this paper.

Finally, other ways should be used to determine whether consumers value information on product characteristics as suggested by this approach. A study of consumer information acquisition behavior in which consumers are presented an array of information from which to select those items they consider important to the purchase decision would provide further evidence on whether the product characteristics identified as important by this method are those valued by consumers.

References


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Herbert A. Simon and Alan Newell, "How Big is a Chunk?" Science 183 (February 1974), 482-488.


THE CONSUMER AND PROTECTION

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Abstract

Foreign trade is generally advantageous to consumers. This paper demonstrates the harm to consumers in the form of higher prices which results from protectionism. It is often alleged that tariffs and quotas save jobs and, therefore, should be tolerated. Other available methods of protecting jobs and industries are discussed herein. Recommendations for helping the consumer against unfair tariffs and quotas are presented.

Introduction

The recent wave of world-wide inflation has made the consumer aware of the interdependence of the world. No longer can any country consider itself isolated from the pricing decisions of other countries, if in fact it ever could. Increasing economic instability resulting in stagflation all over the world has created many problems. One of these problems is the impact of higher and higher prices on the standard of living of the average consumer. At the same time some workers and industries, fearful of foreign competition, petition the government for protective tariffs and quotas which raise prices ever higher. It is the purpose of this paper to demonstrate that protective measures harm consumers more than they protect workers and industry.

The increasing interdependence of countries creates problems for all countries both developed and less-developed. And the reality of that interdependence cannot be underestimated. The ratio of foreign trade to GNP in the United States ranges between 3 and 4 percent, therefore, it has, in the past, often been assumed to be of little importance. Certainly the 1974 oil embargo and continuing oil shortages should dispel such an idea. The United States is a net importer of petroleum and natural gas. In the past ten years we have been a net importer of energy; our imports of petroleum products moving from 21 percent of U.S. consumption in 1965 to 40 percent in 1978 (Commerce, 1979). On the other hand, export trade accounts for some 15 to 30 percent of domestic production of such items as tools, tractor machinery, motor trucks, to name only a few. Coal exports amounted to 19 percent of total U.S. production in 1978 (Commerce, 1979). It is, however, not only the volume of imports or exports that must be measured when determining interdependence but also the components of trade that must be examined.

The United States is particularly dependent upon other countries for the maintenance of its industrial capacity. The United States, for example, is dependent, in whole or in part, upon the importation of all metals except molybdenum and magnesium. As previously noted, our domestic production relies heavily on energy imports. The level of production in the United States is based, moreover, on our ability to export a considerable volume of goods and services. Foreigners using dollars earned through exports to us purchase our exports to them. This exchange is the basic premise on which all trade, inter-regional and international is based.

In all trading situations, however, problems do arise. Just as domestic industry may move from one region to another creating unemployment and dislocation, a parallel can be drawn with international trade. The difference is that when an apparent or real threat to domestic industry or jobs is assumed to be caused by competition from foreign imports, the common reaction is for domestic producers to call for protection in the form of tariffs and/or quotas. Often the general public accepts unquestioningly the cry for tariffs, since protection against imports is alleged to preserve jobs for workers. Whether or not protection is the optimal solution for unemployment and production problems of industry thus affected is not thoroughly examined. Moreover, little or no concern is given to the impact these protective measures will have on prices and, thereby, the consumer. This paper first reviews the basic economic principles on which international trade is based. Secondly, it demonstrates the economic burden placed on consumers by tariffs and quotas. Thirdly, it examines the relief available to workers and industry which eliminates the need for protective measures which are inimical to consumers. Finally, it makes some recommendations for the benefit of the consumer.

Economic Base For Freer Trade

A free unhindered market brings the most efficient allocation of resources both domestically and internationally resulting in lower prices and greater output. Basic doctrine of trade theory states that when countries specialize in and export products in which they have the comparative advantage and import products in which they have a comparative disadvantage it results in a more efficient utilization of the world's resources and, concomitantly, greater output for both domestic and international trade. The theory of comparative advantage is best demonstrated by a simple example.

Consider a two-country (A and B), two-commodity (wine and cheese) world. When Country A uses all of its labor, land and capital as efficiently as

1 Professor of Economics
possible, Country A can, in one month, produce for itself either 200 bottles of wine or 400 pounds of cheese. These are Country A's production possibilities. However, Country A does not want just wine or cheese but prefers some combination of both products. Therefore, Country A decides to use its resources to get a mix of the two products, let us say 100 bottles of wine and 200 pounds of cheese, thereby producing at point $X$ on its Production Possibilities Curve (Figure 1, A). Similarly, Country B, in isolation, can produce in one month either 400 bottles of wine or 200 pounds of cheese. Choosing a combination of both products, Country B decides to produce 200 bottles of wine and 100 pounds of cheese—Point $Y$ on its Production Possibilities Curve (Figure 1, B).

It is clear that given each country's respective factor endowments, Country A has the advantage in the production of cheese and Country B has the advantage in the production of wine. Therefore, if the two countries enter into trade, Country A will produce cheese for both domestic consumption and export; while Country B will specialize in the production of wine. When Country A specializes it can produce 400 pounds of cheese according to its Production Possibilities Curve; when Country B specializes it can produce 400 bottles of wine.

Let us assume that the terms of trade, or exchange ratio, between the two countries is 1.5 bottles of wine for 2 pounds of cheese. After trade occurs Country A can continue to consume 200 pounds of cheese as it did before and export 200 pounds of cheese to Country B. In exchange for the cheese Country B exports 150 bottles of wine to Country A.

As a result of the trade both countries are better off. A is better off since it is still consuming 200 pounds of cheese and now has 50 more bottles of wine with which to wash down the cheese than it had before trade. Country B has 100 pounds more of cheese and 50 more bottles of wine than before trade. (See Table 1). This illustration indicates that specialization and trade result in greater total output available for consumption by our two-country world. Therefore, the standard of living, calculated in terms of bottles of wine and pounds of cheese, rises in both countries. It can be concluded, then, that the consumer is best served by a free market which generates a greater and more varied output for consumption.

Effects of Tariffs and Quotas

Trade restrictions of any kind short circuit the free market and, thereby, hurt the consumer. While both tariffs and quotas increase prices to the consumer, the effect of each is considerably different. When a tariff is imposed the impact on the prices consumers pay depends on where the incidence of the tariff falls, that is, whether the consumer absorbs all or a portion of the tariff. In turn the higher price will generally decrease the quantity consumed.

**TABLE 1. Production Before and After Trade.**

<table>
<thead>
<tr>
<th>Country A</th>
<th>Country B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wine</td>
<td>Cheese</td>
</tr>
<tr>
<td>Production</td>
<td>100</td>
</tr>
<tr>
<td>Consumption</td>
<td>100</td>
</tr>
</tbody>
</table>

**After trade at 1.5:2:**

<table>
<thead>
<tr>
<th>Country A</th>
<th>Country B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>150</td>
</tr>
<tr>
<td>Import</td>
<td>200</td>
</tr>
<tr>
<td>Export</td>
<td>150</td>
</tr>
</tbody>
</table>

Gain from trade | 50 | 50 | 100 |
subject to price elasticity of demand constraints. Over time the higher prices may induce domestic producers to produce more and the importer to import more. As more of the item is supplied it will gradually bring about some reduction in price.

The effect of the elimination of a tariff on imports which are directly competitive with goods produced in the United States is an increase in benefits to consumers estimated to be in excess of $4.3 billion (Magee, 1972). The International Trade Commission indicates that women's wearing apparel of man-made fiber has a tariff (ad valorem equivalent) of 39.2 percent on a 1972 import value of $443,606.

Quotas are even more harmful to consumer interests since they act directly to limit the supply by restricting the amount of an item which can be imported. Figure 2 shows the effect of a quota on the supply. In isolation the domestic industry is able to supply $q_d$ resulting in a quantity of $Q_d$ at a price of $P_d$. After trade a greater supply $S_{dm}$ is available. Consumers can obtain $Q_0$ of the commodity at a price of $P_0$. With imposition of a quota, supply is decreased from $S_{dm}$ to $q_d$. The consumer now pays a higher price of $P_1$ and receives a smaller quantity of $Q_q$.

The reduction of supply causes higher prices. But because of the quota the importer cannot respond to the price increase by importing more which he was able to do under a tariff. Moreover, as domestic suppliers begin to take advantage of the price increase to supply more, significant price decreases are not likely to occur. For one reason, cost of production rises as producers try to bid away resources. Another problem is that quotas tend to create domestic monopolies or oligopolies by eliminating or limiting foreign competition. Price competition is thus reduced, if not eliminated.

Again the consumer bears the brunt of the social cost of protecting domestic industry. At least, higher tariffs result in increased revenues to the government and thus might be argued lower other taxes. But quotas have no such social benefit; they only increase windfall profits for the importer and domestic producers.

So-called "voluntary" quotas have become the accepted technique for restricting imports into the United States. These are agreements between the United States and a second country whereby the second country, e.g., Japan, agrees to limit its volume of a specific item into the United States. The immediate effect is to reduce the available supply of the product and, therefore, increase prices to consumers. It is estimated that "voluntary" quotas on textile goods into this country coupled with high tariffs have increased the prices of domestic cotton apparel to the consumer on an average of 34 percent (U.S. Tariff Commission, 1974). The same is true of restrictions on shoe imports, sugar quotas, dairy and meat quotas. These items alone cost the consumer well over $2 billion in the form of higher prices (Magee, 1972). Dairy product quotas, for example, cost the consumer about $500 million in increased U.S. dairy prices; generally twice as high as world market prices.

Recent research of the Federal Trade Commission estimates that a quota placed on carbon steel cutting the importation from 14.6 percent of the market to 12 percent would cost the consumer $2.5 billion annually (F.T.C., 1977).

While oftentimes the consumer is not as aware of the impact of quotas on him, it does not make them any less real. Higher prices for items such as shoes and dairy products act directly to reduce the consumer's disposable income for the consumption of other items. Increased prices for steel act indirectly.

Basic trade theory makes it abundantly clear that any artificial barriers--tariffs and/or quotas--which lead to limitations of supply hurt consumers by bringing about increasing prices. Ironically, the high prices caused by "voluntary" quotas encourage others to enter our market and then a whole series of such ad-hoc quota agreements become necessary. Eventually, this is not helping the alleged victim industry or the consumer.

The continual lobbying and pressure of the domestic textile, steel, beef and dairy industries over the years have clearly placed the whole burden of carrying the cost of the domestic industries' inability to trade competitively on the shoulders of the consumer. Justice and equity demand that these industries carry more of that burden and be exposed to the competitive market forces which will ultimately shake out the inefficient producers and thus bring about better allocation of

\[ S_d \quad \text{Domestic Supply} \]
\[ S_{dm} \quad \text{Total Supply (domestic plus imports)} \]
\[ S_{d/q} \quad \text{Total Supply (after quota imposed)} \]
resources.

In these times of declining resources and shortages of energy, it is senseless to ask the consumer to subsidize the inefficiency of some producers. Better allocation of resources both human and physical will better serve both the consumer and the economy as a whole. Quotas are a very wasteful way to handle the problems that affect any industry or a few firms within an industry due to import trade.

Under recent international exchange fluctuations the declining value of the dollar has made the prices of imported products increase. When these increases are then coupled with tariffs the prices to consumers become exorbitant. Moreover, our ability to keep the dollar strong is tied to our level of exports. And our level of exports depends on how many dollars other countries can earn from us through their imports. Thus it would appear that tariffs should be lowered and quotas virtually abolished.

Unemployment and Lower Tariffs

But what will be the impact of the elimination or the reduction of tariffs and quotas on jobs and on communities where industries are apparently injured as a result of imports? Presently stagnation has resulted in a double threat of higher prices and job security. Yet the real fear for most people today, as always, is job security. With high unemployment rates the argument can be made that in times of rising unemployment it is necessary to protect jobs and protective measures will accomplish this.

Since workers are also consumers, there appears to be some conflict in the goal of lower prices for imports for the consumer and the goal of continuing and increasing jobs for the worker. However, these goals are not antithetical. As we experienced in the 1930’s our highly protectionist policies did not relieve the unemployment situation. Furthermore, the argument so frequently brought forward to establish that so-called “cheap” labor in exporting countries is actually the cause of the high unemployment in this country does not appear to hold up under recent economic research.

The Heckscher-Ohlin factor endowment model of international trade indicates that given the United States developed technology we would import goods that are labor-intensive and export goods that are capital-intensive, but later work of Leontief disputes this. The Leontief paradox demonstrates that United States exports are less capital-intensive in production than are the goods it imports. Further research clarifies the Leontief paradox by concluding that the relative abundance of skilled labor in the U.S. results in our exporting labor-intensive goods. Our endowment of human capital—educated-skilled labor—is higher than our endowment of physical capital (Baldwin, 1971). Therefore, any reciprocal trade negotiations by which we lower tariffs, thereby increasing imports and exports can in fact lead to an increase in employment in this country.

There is abundant evidence that export industries create more jobs than are lost by those industries competing with imports. The U.S. Department of Labor, in figures updated by Lawrence Krause of the Brookings Institute, indicates that from the first quarter of 1970 to the first quarter of 1971 for each $1 billion of export increases in foreign trade new jobs increased by 111,000 in export related activity and only 88,000 jobs were displaced by $1 billion increase in imports.

The fact that some of our import industries who are asking for protection tend to be employers of low-wage, low-skilled labor seems to further emphasize this point of raw labor (unskilled) vs. human capital (skilled). Mr. George Festus, President of the United Shoe Workers of America Boot and Shoe Union, inadvertently establishes this point when he states in his testimony before Congress:

If somebody can tell me how shoes made by a twelve year-old Spanish boy standing on a box to reach a cutting machine without guards and being paid no money at all for his first two years of employment because—says the Spanish Government—he is an apprentice and their shipping those shoes into this country, replacing in part the output of workers here, who are hard-working, tax-paying consumers is creating jobs in this country, I would like to hear more about it. (Committee on Ways and Means, 1973).

Herein we see the problem as it exists. Since in the United States human capital is so productive, we have a greater comparative advantage in the production and trade of goods using human capital rather than in goods using raw labor which competes with the Spanish boy. Baldwin’s figures confirm that the United States’ comparative advantage centers in industries involving a high percentage of professional labor and low percentage of unskilled labor. Moreover, industries protected by quotas tend to protect jobs at the lower end of the wage scale as compared to industries that provide jobs through expansion of exports (Krueger, 1971). These facts reaffirm the theory of comparative advantage.

Increasingly the United States is shifting to a service oriented economy. At present 70 percent of our work force is employed in services—health, education, trade, finance and transportation. Therefore, the job market in manufacturing is shrinking as a result of forces other than imports. The social cost of protecting low-skilled, low-productivity occupations or inefficiency in management is too great to ask the majority of worker-consumers to bear. This, however, is no reassurance to the worker in the textile firm that related activity loses his or her job. Just as it is true that the consumer
should not bear the burden of high prices to protect the jobs of the few, neither is it just to expect the lower-skilled, lower-income workers to adjust unassisted to the job dislocation which arises out of imports.

Sharing the Economic Burden

The Trade Act of 1974 has more effectively provided assistance to workers and firms distressed by imports and, therefore, it is no longer necessary to expect the consumer to subsidize trade adjustments with higher prices. Because of the more adequate adjustment assistance provision in the legislation it is easier to ask workers, firms and communities to shoulder their share of the economic hardship which results from imports. The Act makes adjustment assistance available to all three constituencies affected by imports.

Workers who are unemployed because "imports contributed importantly" to their loss of jobs qualify for assistance. Benefits are equal to 70 percent of a worker's average weekly earnings for a period of 52 weeks (Committee on Ways and Means, 1974). The basic cost of benefits for which workers are eligible are covered under present state unemployment programs. The Federal government provides supplemental benefits. Furthermore, the Act provides for training and relocation allowances.

Firms, too, are eligible for assistance, both technical and financial, in the form of loans and loan guarantees. Moreover, a community assistance program provides developmental aid to create new job opportunities for communities where competitive imports have hurt the production of the area. This can result from a firm's layoff of workers or from a firm's transferring its entire operations to a foreign nation. A "trade impacted area," as it is called, can receive technical assistance and direct grants-in-aid for the redevelopment necessary to attract new investment.

These direct assistance measures are a more efficient way of financing the employment and production losses which may result from imports. Direct subsidies which retrain workers and retool factories enable both to be more competitive over the long run. On the other hand, tariffs and quotas merely protect the inefficiency of these factors.

For the consumer the direct subsidy approach is more equitable. Since direct assistance is provided for in general revenues, it is paid for under the income tax which, despite its defects, does not exact as much from low-income families as from high-income families. On the other hand, a direct tariff or quota on items such as shoes, textiles, beef and dairy products is more regressive since the tax is a higher proportion of their low incomes.

Summary

In general, artificial barriers to free trade such as quotas and tariffs are intimated to the consumer's welfare. Moreover, the recent adoption of so-called "voluntary" quotas cost the consumer even more than tariffs and the public is often unaware of their price effect. While the adverse effect of imports on low-income workers and low-productivity firms is acknowledged, it is more efficiently and equitably dealt with through the adjustment assistance provisions of the Trade Act of 1974 than through further tariffs and/or quota assistance.

Recommendations

Some recommendations for stronger implementation of the Trade Act would greatly benefit consumers.

First: A substantial tariff reduction and continuance of reductions where it pertains.

Second: A relaxing of restrictions under non-tariff barriers such as quotas which often cause higher prices to consumers than tariffs.

Third: A liberal application of the adjustment assistance provision to protect individual workers and firms that are affected by imports. This should include strong use of the community assistance provisions.

Fourth: A broadening of the Generalized System of Preferences (this takes Congressional action) thereby removing the exemption of such articles as textiles and shoes.

Fifth: A complete examination of the facts by the International Trade Commission, including the views of consumers, before escape clause protection is granted.

Sixth: A stronger involvement on the part of consumer economists and consumer educators in teaching the values of free trade.

Consumer advocates have both a great opportunity and a great challenge. The opportunity to be instrumental in the liberalization of trade making the United States the leader in the international struggle for freer trade, while at the same time lowering prices for consumers. This is not always an easy struggle and herein lies the challenge. Let us be willing to act as defenders of the rights of consumers everywhere and make tariff and quota reduction a reality.

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RESEARCH ISSUES:
CONSUMERS AND AN UNCERTAIN FUTURE

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The identification of the most significant future consumer research topics is not easily accomplished. There is no clear and well understood consensus on the boundaries of consumer education. Practitioners in the field can come to no agreement as to whether or not consumer education is or ought to be a discipline. The ultimate beneficiaries of consumer research (consumers) represent a very disparate group with different needs and interests. The Consumer Education Development Program project has established that many consumer educators are unhappy with both the past level of consumer research spending as well as the agenda that has been covered. But there is little unanimity on what the future research agenda should look like.

Marking out the boundaries of consumer research is also a significant task. Indeed, the Consumer Education Development Program project has found it difficult to define the term consumer. For the sake of expediency it is assumed that all of us are consumers when we engage in the purchase of commodities in the marketplace. But some individuals spend a greater proportion of time and income performing this function than others. Thus, consumer research should be of benefit to individuals in making wise purchasing decisions, in shaping production forces to meet consumer needs as well as demands and in helping consumers to cope with the very complex economy that produces the consumed goods and services. Put very simply, consumer research is an orientation that stresses questions and information that will be of greatest benefit to Americans in their consumer rather than producer roles.

The Changing Economy

It is now well accepted that the U.S. economy is undergoing a fundamental transformation. (Harman, 1976). The years 1973-74 represent a significant watershed in economic history. The first two centuries in the U.S. were characterized by general prosperity only occasionally interrupted by short-term economic setbacks that can be traced to human greed or error. Labor, resources, and capital were cheap and abundant. The population was growing and the frontier pushed continually westward. Rapid economic growth was generally expected.

The most obvious manifestation of this transformation is the stagnation induced by the quadrupling of petroleum prices in 1973-74. But there is much evidence that other structural factors have been at work during the last decade. Whatever the underlying causes of the new economic outlook for the 1980s, several enduring changes in the United States economy seem to have occurred. The rapid growth in real G.N.P. per capita has leveled off and it seems doubtful that it will ever return to historical rates. Consumer optimism about the economic future has given way to rather significant pessimism about prospects for economic growth. (Yankelovich, 1979). The visions of a rapidly expanding economy permitting increasing standards of living for all have been replaced by visions of a limited economic future in which the gains of one segment of society can only come about at the expense of others. Cheap sources of energy and other inexpensive primary commodities have been replaced by those that are much more expensive. Inflation has become an enduring fact of life. Real take-home pay for the average U.S. worker has recently declined in as many quarters as it has increased.

Just as the dynamics of the economy have been undergoing extensive changes, so has the consumer research agenda. Unless consumers understand the nature of these large-scale macro-economic changes, they will be the biggest losers in an increasingly antagonistic economic environment. (Creighton, 1976). In what follows six important research areas in consumer education are identified and explicated. The general nature and significance of the research problem is outlined. The research area is linked to the more general economic transformation that is taking place. Specific consumer topics within the area are identified. Several key research propositions are then identified within each topic area. Finally, suggestions are made for translating research findings into materials that can be readily assimilated by the various existing consumer audiences.

Energy

Prior to 1970 no one considered energy to be a critical consumer research topic. Indeed, the U.S. economy has been built with the aid of cheap energy. First abundant domestic reserves of coal, petroleum and natural gas kept energy prices low and spurred consumption. Then cheap foreign supplies were made available through the pressures exerted by large multinational oil companies. The result has been development of an industrial society in the United States that is prodigal in its consumption of energy.

The petroleum crisis of 1973-74 and subsequent aftershocks have forcefully brought energy problems to consumer attention. Indeed, rising energy prices are at the center of the more general economic transition that is now taking place. The
contrived scarcity of the 1970s anticipates
the ultimate depletion of these resources
by more than a decade. In this respect many people
have argued that higher prices are a blessing in
disguise because they permit a more orderly transition
to more expensive alternative energy sources.

The average consumer now spends between ten and
twenty percent of family income on various forms
of energy consumption and these percentages are
expected to increase substantially as energy prices
continue to rise. Rising prices for other consumer
goods are often justified in the name of higher
production costs due to increased energy costs. It
is estimated that more than twenty-five percent
of available future capital will be used to meet
U.S. energy needs until the year 2000. It is thus
obvious that consumers have a vital stake in under-
standing the nature of the energy problem as well
as determining the consumer interest in the various
alternatives that have been suggested.

The following are among the specific consumer re-
search projects suggested by the energy situation:

...The energy pricing and distribution system should
be examined to determine who has profited and by how
much as a result of the severe dislocations of the
1970s. The major oil companies claim that they are
simply passing on the increased costs of the oil
exporting countries. But their rising profits
indicate that this may not be the case. Furthermore it appears that the oil companies might have
circumvented government regulations when they in-
creased their prices and that they may be diverting oil to European countries where prices are higher.
There have been no serious studies completed that
examine these issues from the consumer perspective
and higher prices have been passively accepted as
necessities without supporting documentation.

...Alternative methods of reducing energy consump-
tion should be examined from the consumer per-
spective. Current policies accept the premise that
higher prices reduce consumption. There is much
evidence that demand for petroleum is sufficiently
inelastic so that, over the long run, rising prices
do little to reduce consumption. While prices rise
and adversely impact the poor and middle classes,
alternatives are offered to the consumer who
is searching for ways to cut personal energy
consumption. The logic of different kinds of
rationing systems as alternatives to rising prices
should also be examined.

...Various new alternative energy sources to replace
the fossil fuels have been suggested. The costs of these systems to the consumer (economic as well as environmental) should be assessed so that consumers might play an informed role in choosing them.

...Public opinion polls suggest that the consuming public may not understand the nature of energy shortages. An "energy literacy" survey is necessary to determine the level of consumer awareness of the energy problem. This would include an assessment of factual knowledge ranging from
the ability to read and interpret utility meters to
the nature of the O.P.E.C. cartel. Appropriate consumer education curriculum materials could
then be developed with this information in mind.

The following are among the many types of products
that could be created to translate this research
into consumer education materials. Consumer activ-
ists need basic "fact books" dealing with energy,
utilities, regulatory processes, and production
alternatives. Consumer education at all levels,
primary, secondary, and university suffers from
lack of attention to this critical topic. Text materials are needed on all these levels. Findings
might also be conveyed through special workshops
designed for consumer educators.

Inflation and the Frugal Economy

The United States is undergoing a significant eco-

nomic transformation in the 1970s. Throughout most
recent history the U.S. economy has been one of
abundance. Resources and production capacity
have been more than adequate to meet consumer needs.
This abundance has given rise to theories stressing
the role of consumer sovereignty. Dollars spent
in the marketplace, according to these theories,
are really votes for the continued production of
certain mixes of goods and services. Consumers,
in the aggregate, thus determine the shape of the
future marketplace.

Critics have pointed out that even during times of
economic prosperity these simplistic microeconomic
views did not adequately describe the nature of
producer-consumer relationships. (Creighton,1976).
But there are many indications that the nature of
the whole economy is being transformed from one of
relative abundance to one of relative scarcity.
In the United States inflation continues to run at
unprecedented double-digit rates in spite of gov-
ernment efforts to control it. Productivity, as
conventionally measured, has not increased at
expected rates and in some recent years has actu-
ally declined. Indeed, the claim has been made
by some that, for a number of structural reasons,
conventional types of economic growth may be
approaching a standstill. (Rathbun, 1976). Sur-
veys reveal that consumer confidence has reached
extremely low levels and consumers are expressing
anxiety about the economic future. Government
spending and sources are under attack because tax
burdens appear more onerous under conditions of
slow economic growth and rapid inflation.

Given continually rising energy prices and serious
macroeconomic dislocations a more "frugal" economy
may permanently replace the economy of economic
growth. (Hamrin, 1980). Relationships between
producers and consumers and between the public and
private sector will be radically changed by forces
that have already been set in motion. This trans-
formation of the U.S. economy suggests the follow-
ing types of research topics:

...A significant project analyzing the causes of
and remedies for inflation from the consumer
perspective is needed. Our historical experience
with inflation is limited and the policy tools for
dealing with it consist almost exclusively of
clumsy and harsh monetary and fiscal policies which make no distinctions among the types of economic activities affected. This project would attempt to identify the causes of contemporary inflation, the winners and losers resulting from inflation, the impact of existing remedies on consumers and to suggest alternative remedies that would be more discriminating in their impact.

...The consumer interest in government regulation and provision of collective goods should be closely examined. In relation to the new economic austerity pressures are growing for trimming taxes and the regulatory role of government. The consumer interest in distinctions between public and private sectors should be evaluated and a "cost-benefit" analysis of government regulation is suggested. A series of case studies of the impact of government regulation on various market segments should be carried out to determine costs and benefits to consumers of such activities.

...A related area of inquiry concerns the burden of national defense in a frugal economy. Defense is a "public good" offering very little visible return. While many critics have attacked the size of the defense budget, their attacks have taken place within an economic environment of rapid growth. Under those circumstances both guns and butter were possible. Under more restricted growth conditions, however, such expenditures may no longer be possible or in the consumer interest. The impact of future defense spending and United States global commitments should be examined from the consumer perspective.

Research on these topics is bound to be "softer" than that completed in other areas. But it is essential that some of the frugal economic scenarios be explored so that consumer education can grapple adequately with these broader social issues as they arise. The reports and studies completed as a part of these research efforts can be translated into curriculum materials at the primary and secondary levels and the reports themselves can be used by university audiences and consumer activists.

Services in a Changing Society

The economic transformation in the United States is being accompanied by a sociopolitical shift of equivalent magnitude. The most significant of these changes is the massive shift from the production of goods to the provision of services. A greater share of future consumer dollars is likely to be spent for services such as education, health care, recreation, government, and research while consumer goods may become relatively less important. The consumer movement is accustomed to dealing with industrial problems and is not yet adjusted to dealing with problems of the post-industrial economy. The service economy differs from its predecessor because within it the customer is an active participant in the production process. Services involve people-to-people activities. They are white collar occupations. They are labor intensive. Often there is no tangible product involved. Most frequently services are offered by government rather than the private sector. (Gartner, 1974).

In an era of rapid social change when an increasing portion of the consumer dollar is being spent on human services, the following types of research topics seem appropriate:

...A general assessment of the changing nature of the U.S. social structure and an analysis of consumer problems created by such changes is required. This includes an analysis of needs for new services as well as an examination of the adequacy of some old ones. Of particular importance here is the adequacy of existing social security and pension plans as well as programs for the increasing number of aged.

...An analysis of the health care delivery system in the United States from a consumer perspective is desirable. The present mix of public assistance and private health plans represents less than an ideal one. There is little emphasis on preventive medicine in the present system and much emphasis on expensive and esoteric technologies designed to prolong a small number of lives. A cost-benefit analysis stressing optimal use of the medical dollar is indicated. An investigation of the merits of a publicly financed health system is also desirable.

...Investigation of the efficiency and desirability of government-promoted services should be undertaken. The nature of the service bureau bureaucracies, questions of responsiveness to consumer needs, and issues of quality maintenance should be studied.

The Consumer in an Interdependent World

The American consumer is increasingly influenced by events that take place in the international political and economic systems. The world's economies are becoming much more interdependent as a consequence of world economic growth. Events in distant parts of the world (Iran, Zaire) can have a significant impact on the American consumer. But consumer research has focused very little attention on the international aspects of American consumer problems.

The high standards of living that exist in the United States have both positive and negative effects on other countries. On the positive side a growing American economy offers a market to producers of basic commodities in less developed countries. The United States exports technological know-how and development to many Third World countries. But on the other hand the growing U.S. appetite for raw materials is now seen as a significant problem in international trade. It is estimated that the six percent of the world's population living in the United States now consumes about thirty percent of the world's production of basic commodities. Domestic reserves of raw materials continue to decline leading to more U.S. purchases abroad.

The international system is undergoing a transformation that parallels that which is taking place in the domestic economy. The large number of countries that have recently attained independence demand creation of a New International Economic Order consisting of a new set of economic rules to replace the present free trade system. They argue that basic commodity prices are kept too low in relation to the prices of high-technology products.
imported from the industrial countries. Demands are made for marketing agreements, increasing and stabilizing prices for all major basic commodities. O.P.E.C. is seen as the first of many price-fixing arrangements in the world economy. (Pirages, 1978).

There are also a number of delicate equity questions raised by the global spread of multinational corporation headquartered in the U.S.. These corporations tend to locate where labor is cheapest and environmental protection standards non-existent. The American consumer thus benefits from the low wages paid to laborers and from the degradation of the physical environment in less developed countries. American laborers lose jobs to foreign workers as a result of this "export" of production. The responsibility (if any) of the American consumer for these matters is a significant issue for consumer reflection.

The industrial countries are also engaged in intense economic competition in order to make up deficits in trade balances caused by the rapid increases in the price of imported petroleum. Japan, in particular, has recently run an annual surplus of several billion dollars in trade with the United States. Very cheap Japanese products have been "dumped" on the American market at prices that don't reflect the true cost of production. This has given rise to new demands for protection from "unfair" foreign competition.

These considerations give rise to an international agenda of consumer research topics:

...The whole question of consumer interest involved in protectionism versus free trade should be investigated. This involves an analysis of the costs to consumers of existing protectionist legislation as well as the impact of such legislation on the aspirations of less developed countries. The economic impact of a completely free trade system should also be assessed.

...The role and responsibility of multinational corporations in the world community should be analyzed. Is the consumer in the United States benefiting from questionable economic practices by the multinationals? Ways of controlling the activities of these corporations (many of which affect consumer interests) should be suggested.

...A case study of United States food policy should be undertaken to determine the impact of U.S. exports to the Soviet Union and other countries on American consumers. Are the large grain exporters profiting at the expense of the consumer when prices are driven up by such sales? What policies can be suggested to minimize the impact?

...An assessment should be made of the impact of actions taken by the O.P.E.C. cartel on the American consumer. An attempt should be made to assess the future of other natural resource cartels and to speculate on the impact that they could have on the future consumer.

Mass Communications and Advertising

In classical economic theory information about goods and services available in the marketplace was freely available and could be obtained directly from the individuals involved. In complex industrial societies information is considered to be a valuable commodity and often can only be obtained at a considerable price. Furthermore, information now comes through the mass media which increasingly creates an image of the world that is more or less in conformity with reality. It is said that we live in a "global village" that is saturated by instantaneous communication.

The mediated world creates problems for consumers. Access to accurate information is essential for informed consumer behavior. A smoothly functioning marketplace requires that accurate information be disseminated widely and that safeguards against subliminal and misleading selling techniques be established. But media accuracy cannot be guaranteed to the United States. The public media receive inadequate funding and the private media are controlled by large corporations with an obvious interest in selectively presenting certain types of sensitive information. Given this situation the following topics are suggested:

...A consumer assessment of monopoly tendencies in the mass media should be undertaken. This investigation would examine patterns of media ownership, levels of competition, interlocking directorates, etc. The role of government regulatory agencies in licensing radio and television stations should also be examined. Ways of inducing more competition into the media and expanding the sources of information available to consumers through cable television and other technological innovations should be studied.

...The possibility of expanding public service media should be explored. At present very little funding is devoted to public television. And there are no subsidies for public service radio or newspapers. Studies should be made of successful consumer information sources such as Washington Consumers Checkbook or Consumer Reports to see if they can be duplicated. The desirability and feasibility of creating "anti-commercials" to direct consumer spending in socially appropriate directions should be explored. Alternative methods of financing commercial television should be analyzed from a consumer perspective.

...Additional studies of the impact of advertising on the individual should be undertaken. American families are spending as much as sixty hours per week watching television and are exposed to hundreds of commercials. The impact of commercials aimed at children should also be studied further.

...Billions of dollars are spent annually in image creation and advertising. A study of the economic impact of legal restrictions of these activities should be carried out. In other words, an attempt should be made to answer the question of what the economy would be like without Madison Avenue.

...There have recently been a number of cases in which the media have reported on products that present a clear danger to large numbers of individuals. Among these are defective automobiles, tires,
asbestos in hair dryers, dangerous chemical dumps, PCB threats, etc. Case studies are recommended to assess the adequacy of reporting, its accuracy, the ultimate impact, and the pressures experienced by media personnel involved. It is suggested that such research might best be carried out by a team consisting of consumer advocates and physical scientists.

Consumer Education and Information Dissemination

There are a large number of research projects that can be profitably undertaken within the confines of the consumer movement and consumer education. The results from consumer research projects such as those previously discussed must be disseminated in an appropriate manner if they are to have an impact on consumer behavior. Optimal dissemination of information requires that we know something about the nature of the consumer movement, consumer education and techniques of information dissemination.

Consumer education must be directed at many disparate groups. Appropriate materials must be created for elementary, secondary, and advanced education. Different types of materials are required for consumer activists. Still other products must be created to reach minorities. The study of the different educational needs of all of these disparate consumer groups is an important additional research area. The first five research tasks discussed above are directed to the question of what the consumer will need to know to operate successfully in the future world and this question addresses the problem of how such information should be packaged and disseminated.

Stampfl (1978) has investigated consumer education needs as they relate to the consumer "life cycle." He has created a matrix that matches up stages of consumer maturation (childhood, adolescence, early singlehood, mature single, and marriage) with consumer informational needs and marketplace skills. The cells of the matrix are filled with specific subjects that should be mastered by the intelligent consumer. Similar research matrices are suggested for the education and dissemination research. Along one axis of the matrix one might array the various kinds of consumer groups to be impacted. On the other axis would be the various types of information that is required by these consumer groups. The cells would then be filled by relevant products.

The following research tasks seem most important in the area of consumer information dissemination:

...Few data are available concerning the diffusion of consumer information in American society. A study is suggested that would trace the diffusion of information about a defective product (tires, hair dryers, etc.) throughout society. This would include an analysis of news media and possibly survey research in an attempt to understand consumer information channels.

...An analysis of the outreach of various consumer publications is needed. What types of periodicals reach what types of audiences? Does a two-step flow of communication exist in consumer affairs? Who are the relevant opinion leaders?

...An analysis of materials available in primary, secondary, and advanced consumer education would be useful. Suggestions for new products could be made as well as for methods of encouraging the creation and diffusion of new materials. Perhaps a conference including issue specialists and consumer educators would be useful in addressing the question of new materials.

...Case studies should be made of successful consumer organization efforts and dissemination of relevant information. How are successful consumer networks established? How can existing networks be expanded?

References


Panel: Future Consumer Educators--Can We Get There from Here? Consumer Education as a National Goal

Charlotte A. Nyheim, U.S. Office of Consumer Affairs

Abstract

For us to tackle a future of accelerated change in our lifestyles, technologies, and worldwide influences on our economy and resources, consumer education must address contemporary issues and be more comprehensive and coordinated than it has been in the past.

The challenges are many, the opportunities abundant. Education, public, government, consumer, labor, and business leaders can all be influential in meeting these challenges and should work together toward national consumer education goals.

To consider where we need to focus our energies in consumer education in the future, I think it is appropriate that we review where we are now.

Over the past decade, the consumer education field has been studied from a variety of perspectives, beginning with the extensive 1970 study at Purdue University by Joseph N. Uhl where 408 organizations providing consumer education at the elementary, secondary, and adult levels were surveyed. Uhl's findings indicated an emphasis on individual buying skills in the area of food and durable goods with little recognition of the social consequences of private consumer decisions. Uhl found that consumer education was not addressing the need for developing skills for active participation by consumers in the economic, social, political, and governmental decisions which affect them. As recently as 1979, Robert O. Herrmann concluded, in his analysis of high school-level consumer education through an examination of textbooks published over the last 40 years, that "consumer education has been only partially responsive to social and economic changes."

Complementing these studies, which reflected deficiencies in consumer education content, were others conducted in the past five years indicating both consumer illiteracy and public concern about the unmet need for consumer education. A 1975 University of Texas at Austin study on adult functional competency found that a majority of consumers were less than proficient in applying basic skills to life's needs, and more were functionally incompetent in consumer economics than in any other area. A 1976 Harris Poll indicated that 74 percent of the public believed students leaving high school were either "not very well prepared" or "not prepared at all" as consumers, and 92 percent supported compulsory consumer education. The National Assessment of Educational Progress released a study in June, 1979, on the consumer skills and attitudes of 17-year-olds which found them short on knowledge of personal finance, consumer protection and behavior, economics, contractual agreements, and such critical concerns as energy. Of the 4,300 students surveyed nationwide, over 70 percent had never taken a consumer education course at all.

In spite of clear deficiencies in the field, we have seen consumer education move forward over the past decade, and this advance must not be understated. A 1979 Education Commission of the States study reported that in 1978, 38 states and territories had a specific policy on consumer education, which is double the number in 1973.

Federal support has played a role in this surge of interest in consumer education. The Vocational Education Act of 1968 (Part F, Consumer and Homemaking Education) provides formula grants to states for programs including consumer education. Supporting consumer and homemaking education in home economics in particular, this approximately $44 million a-year program has been used for interdisciplinary curricula as well, and has resulted in consumer education activities in every state under individual state plans.

The Department of Health, Education and Welfare's Office of Consumers' Education (OCE), funded in 1976, has awarded grants and contracts totaling almost $14 million over the last four years for consumer education research and a wide variety of curriculum development, classroom, and community-based consumer education projects.

To bring national attention to those programs currently operating and to focus on opportunities and goals for the future, President Carter issued a proclamation on April 9, 1980, proclaiming the week of October 5 as National Consumer Education Week. In the proclamation the President stated:

"Consumers who understand the marketplace can help assure genuine competition, increased productivity and quality, and lower prices. Educated and involved consumers can also be effective regulators of the marketplace.

"That is why we must have effective consumer education in our schools, in our communities, and in the marketplace. Many good programs, public and private, are now in place. But we need a more comprehensive and coordinated approach, not only for those in our schools, but also for the elderly, the poor, and the many individuals who can benefit from purchasing skills, assistance in financial management, resource conservation methods, and self-help or alternative solutions to economic constraints.

"Education about consumer laws, rights, and avenues of redress will allow consumers to
thrive in our economic system and to cooperate
in a partnership between consumers, government,
and business for the good of all. Our interests
as consumers are tied closely to our involv-
ment as citizens in our democratic society—
and well-informed, committed consumer citizens
can have a great positive impact on both pub-
lic and private decisionmaking."

The proclamation was in line with the President's
commitment to insure the consumer's interest is
included as an integral part of Federal decision-
making. Executive Order 12160, signed by the
President in September, and to implemented in June,
requires that each executive agency develop a con-
sumer program that includes trained consumer af-
fairs staff to represent the consumer's interest in
agency decisionmaking, procedures for con-
sumers to participate in agency regulatory and
policy decisions, informational materials, and a
system for effective complaint handling.

Obviously, for these plans to be totally effective,
we need educated consumers who can knowledgeably
and self-confidently take part in the decisions
which are intended for their benefit and welfare.

At the same time, the Administration has been
pursuing a regulatory reform agenda to eliminate
unnecessary and costly regulations, include con-
sumers in the regulatory process as much as pos-
sible, and simplify regulatory procedures. Once
again, the key to success for these programs will
be the willingness of educated consumers to actively
join in partnership with Federal officials in the
pursuit of the common goal of protecting the
public interest.

This partnership is absolutely essential for us
to tackle a future of accelerated change in our
lifestyles, technologies, and worldwide influences
on our economy and resources. Consumer education
must address these future needs. It must address
contemporary issues and be more available and in-
tegrated than it has been in the past.

The challenges are many, the opportunities abun-
dant. Education, public, government, consumer,
labor, and business leaders can all be influential
individually and, more important, collectively in
meeting these challenges. Each must closely ex-
amine how to actively initiate or support programs
to assure that:

- All students have an opportunity to develop
  consumer competence and self-reliance, as well as
effective participatory skills;

- There is adequate inservice and preservice
teacher training for those teaching consumer ed-
ucation as a single discipline or integrating it
into other areas of education;

- The Federal government, state legislatures,
boards of education, and school administrators
are sensitive to the need for consumer education
and indicate a commitment through funding and
other support;

- Curriculum and materials are developed
or expanded upon which reflect contemporary
social, technological, and economic factors;

- Increased research and assessment of ef-
fective consumer education programs and methods
of dissemination are conducted.

Up to now, we have seen consumer education grow
during cycles of heightened consumer interest.
We have observed it flourishing sporadically be-
due to Federal funding; support at the local or
state levels; legislative mandates; the interest
of concerned and motivated teachers; or by pres-
sure brought about by students, parents, consumer
organizations, business, and/or labor organizations,
individually, or all working together in a con-
certed effort toward a common goal. By looking
at how it has happened in certain instances, we
can see how it can happen on a larger scale.

Representing some 3,000 members, the American
Council on Consumer Interests (ACCI) is in an es-
specially good position to serve as a professional
focus group to stimulate discussion and action in
the area of consumer education and teacher train-
ing. In particular, higher education can provide
appropriate research regarding consumer education
needs, competencies, and teacher preparedness.
At the same time ACCI can be a vital force in sup-
port of legislative or administrative action to
promote consumer education programs and funding.

We need to work together at as many levels as
possible to stimulate the interest and momentum
that is necessary for a national consumer edu-
cation thrust, and I call on the membership of
ACCI to consider how it can plan an active role
and join others in pursuit of this goal. An
action agenda could include developing state
colleges, holding meetings, working with legis-
lators or state boards, and creating a national
visibility in support of consumer education.
It is no exaggeration to state that the consumer is in a bad place today. It is not only that rampant inflation saps consumers' buying power, while planned escalation of unemployment is put forth as a misguided program to curb inflation. Indeed, it seems that a central feature of anti-inflation policy is to abuse the consumer. For example, the Washington Post (March 20, 1980, page A-1) reports that

The action contemplated by the Federal Reserve would allow lenders to raise the interest rate unilaterally on consumer credit, increase the monthly payments on accounts and make other changes without giving advance notice to consumers. (Emphasis added)

Not only are consumers to be duped and abused, but the perception is abroad, or at least is being put forth, that consumers and their interests have had their day. An editorial in The San Diego Union (April 17, 1980, p. B-16) as we arrive here, makes this point:

The consumer and environmental movements had their inning during the 1970's. A long list of anti-pollution laws, product-safety standards, and strict development controls attest to what a big inning it was.

And consumer education, too, faces this same warped view. In an editorial in the Joint Council of Economic Education's newsletter, a leading economic educator, William D. Rader of Ohio State University, expresses his fears, sadly too little true, about consumer educators.

If business actually believes that all consumer educators are only consumer-protection, government regulation oriented, then we need to do a better job in communicating a positive image. ("Guest Forum," Con-Ec-Tions, February, 1980, p. 2)

We need not go on, I believe, to make the point that consumers and consumer education are at a bad place. And, here, we need to look at the role of a professional organization, such as ACCI, in serving consumers and consumer educators. The potential role it can play is portrayed best by describing some agenda items of ACCI's 1984 annual convention to be held in Washington, D.C.

--Plenary Session, "The Consumer and the Depression: Three Years of Experience, and How Do We Get Out of It", a panel chaired by the new chair, President's Council of Economic Advisors, Lucy Black Creighton.

1Director Center for Advanced Study in Education
The energy forum
An alliance of honesty

Stephen Schachman, Philadelphia Gas Works

The general theme of this year's conference is consumer issues for the 21st Century. In the natural gas utility business we've been bounced around in recent years by a combination of factors and events that have made us very cautious about giving long range predictions.

However, this morning I want to talk about a challenge and an opportunity of the 80's and how a new alliance might be formed, founded on honesty, to turn that challenge into an opportunity.

I don't believe I'm being overly dramatic when I say the 80's will require an alliance between business and consumers if we are to hold our society together.

A recent too-little-noticed Washington Post poll asked members of Congress whether they thought that in the next decade the U.S. "will undergo sharp political, social and economic upheaval brought on by a shortage of energy." 62% of Congress thought the odds are at least 50-50 and 37% thought it "probably would occur."

Put plummeting faith in the political institutions, next to the energy/economic squeeze, and you have the basis of a potential major 1980's upheaval.

This does not have to happen. In fact the recently perceived, by the public, energy crisis could work as a unifying/rebuilding force.

In the past, major societies have had an overriding concern, around which the majority could cohere......the vast majority of the population recognized a concern and were united in their response to that concern.

The concerns have ranged from starvation to empire building to clearly perceived threats by invaders, to the U.S. of the 1800's where conquering new frontiers was a major priority.

With the possible exception of the space race, since World War II, there has been no unifying concern in the United States. In fact we've tried to ignore such concerns where possible, and to apply placebos and band-aids to those we could not ignore. We've created a "give-me" society giving people pacifiers to provide a feeling of instant gratification for their urges and demands.

Author Philip Lesly sees it this way. "We've tried to create a risk free and problem free human climate. As a result, of course, hardly anyone is satisfied. Risks are seen in every package of food and at every electric light switch.

Hundreds of causes and cults attract avid adherents. With no real concern that can unify people we've become a widely splintered society. It's everyone for himself or herself, or for each narrow issue, and no cohesion for anything."

We seem to be facing a crisis of the spirit - a lack of faith in ourselves that we manifest by constantly criticizing our government, our leaders and our institutions, we are anti-government, anti-business, anti-everything except ourselves. A recent article in the Philadelphia Daily News talked with a number of experts about the problem.

"Years ago Eric Hoffer said that if anything would bring about ruin it would be a failure of nerve."

Tom Smith of the National Opinion Research Center at the University of Chicago has developed along with some associates in his field a cynicism index. It basically asks what proportion of the people do not trust their leaders, be they government or business, to be able to deal effectively and honestly with the nations problems? Twenty five years ago about 30% of the population was mistrustful. Recently that has grown to 60%. Over half the population no longer has confidence in its leaders.

Smith and others see this as privatism, a tendency to withdraw from participation and concern with society's larger problems.

Tom Wolfe has called it "The Me Generation" a preoccupation with self and selfish concerns.

Harvard Sociologist David Reisman calls it "internal migration." People are looking in vain for a leader, someone they can trust and when they cannot find this leadership, they withdraw. There is despair and there is a growing truculence. Professor Reisman believes that among the reasons people are turning away is because it now requires a lot of work to understand their world, a lot of thought. And, therefore, we now have a semiliterate population.

He continued, people today are not educated. That is a large element in the phenomena of turning away. They don't feel able to cope. Ninety percent of the population now goes to open admission institutions. These are institutions that essentially have no entrance requirements. The graduates they turn out are barely literate, and -- this really troubles me severely -- it is these people who then go out and become the teachers of others. When I think about the group who gathered in your Philadelphia.....Jefferson, Frank-

1President and Chief Executive Officer

2Philip Lesly, Managing the Human Climate a supplement of PR Reporter, No. 61 March-April, 1980.
lin, Adams... Where would you find such people now? I feel very gloomy about the long term prospects.

E. Digby Baltzell, The University of Pennsylvania Sociologist, says people are nervous. I have never seen such mistrust of government and the elite is no longer trusted as well. If you don't trust the elite, the educated, to lead you out of your difficulties, how can you put any trust in your own abilities to do so? I feel that we have lost faith in our own strength, that is why we are frightened and in despair. It is interesting: It is not the strength itself we have lost, but our faith in it.

Could it be as Eric Hoffer put it "a failure of the nerve?"3

Shakespeare asked some time ago whether the fault is in the stars or in ourselves.

I wonder if in considering Dr. Baltzell's frequent references to strength -- "we have lost faith in our own strength" and "it is not the strength itself we have lost, but our faith in it" -- I wonder if we could substitute for strength \ldots\ \ldots\ intellectual honesty? Intellectual honesty in our dealings with each other and more importantly intellectual honesty with ourselves. Again it seems the Bard had something to say to us on this subject. What was it? "This above all else. To thine own self be true\ldots."

As I look at the evolution of consumerism, I don't think there has been an over abundance of honesty, there was a lack of honesty in the way business reacted to the movement and there was often a lack of honesty in the approach and methods of many leaders in the consumer movement. And there was a lack of honesty in the way they both dealt with the public.

The awakening to the energy problem and its results could be the concern that everyone can rally around. It can be the role model for a candid and honest approach of all parties to a common problem.

But the word honesty is the key if this is to happen. Responsible consumer leaders have to speak out. They have to let their constituents and the public know that energy is growing scarce and it is going to cost more. They have to be candid and say that the easy days are over and they are never coming back. They have to stop using local utilities as the whipping boys to shake the face of consumer in order to produce the conditioned reflex. And they have to be honest in helping their utility hold the price line. I recently sat at a consumer round table in Philadelphia and had a most amazing experience.

At this point let me explain that our company provides 24 hour, 7 days a week, 365 days a year, free service to our customers. Our records show that less than 50% of our customers account for the majority of service calls.

This meeting was attended by a spokesperson for a major consumer group. He kept saying you've got to keep the cost of gas down and so I invited him to join me in urging our local regulatory body to allow the company to go to a paid-for-service-policy. In other words let those who use it, pay for it.

Since we are talking about a savings of several million dollars one might reasonably expect the spokesperson to join in enthusiastic support right? Wrong. He said that as a former union agent he would fight such a proposal because it might mean a layoff of some union service men. Now I had told him I didn't think anyone would be laid off. It seemed to me he had a conflict of interest. He represented a group of people living on fixed incomes who needed all the financial help they could get and he was not acting as their representative but as a representative of organized labor.

We can't have it both ways. Ultimately we have to pay the piper. If we're going to reduce costs we've got to restructure some priorities.

The ultimate insult came when he indicated he would fight the issue publicly on the basis that it was just another company scheme to rake in more revenues.

That is not what I call intellectual honesty.

Nor is it intellectually honest to try to turn a utility into a social agency. You all know what happens when you force a utility to stop collection activity. You know what happens when a utility is forced to provide a discount for a special class of customers.

You ultimately increase the cost to all utility customers.

That also is intellectual dishonesty.

There is much that can be done to hold the cost line. There are many ways to provide relief for energy users but its going to require our joint efforts. We have to work in unison. Making each other appear to be a villain may provide good copy, it may even get votes, but it is a horrible disservice to those who in many cases desperately need help and representation.

I think business and consumer interests have made a common mistake. They don't really trust the public. They believe that to gain public acceptance they have to indulge in generalization, simplifications, hiding of the facts and shading the truth.

If we really believe in the value and worth of what we are doing we ought to be willing to present the unvarnished truth to the public and trust them to make the proper decisions.

Let's stop with the posturing and the name calling. Eliminate the rhetoric that has become a liturgy and get on with the business of finding solutions.

It seems to me that the 80's should mean that the time for the corporate consumer affairs officer is nearing an end.

I believe consumers are tired of hearing from the P.R. types.

My PR man's title has been changed and with his new title, V.P. of Corporate Communications so have his staff and responsibilities changed. Instead of acting as a buffer now one of his responsibilities is to put our operating people in direct contact with consumer groups.

Communication is exceedingly important because honest communications are the fabric that holds our society together. We in business have to learn quickly that communications is composed of two main parts.

We have to learn to listen as well as talk. We have to realize that communications is a two-way street.

A third element is required if communications are to remain successful between two parties. That element is action -- reasonable, fair and prompt action.

To be an effective corporate executive I need all the facts at once -- not in a piecemeal fashion. In addition I need the facts in their purest state. Not strained, refined and packaged through several layers of lower or senior management.

What all of this translates to is that I expect my Manager of Collection and Meter Reading to get out, talk with customers on a face to face basis. When this happens I know the odds are that he will find out what's really going on. Face to face meetings offer the best chance of genuine communications.

You say you can't afford the time for such meetings? I say you can't afford not to take the time.

They are time consuming and are expensive, but they are much cheaper in the long run when one prices the cost of extensive hearings, arbitrations, restrictive and inefficient legislation and so forth.

Face to face communications may not mean a better solution but they certainly will mean a quicker one. They eliminate internal inter-departmental squabbling over matters of responsibility and territory. They provide a marvelous opportunity for our operations people to become sensitized.

A benefit of the direct communications approach is that community groups become used to seeing, talking and dealing with operations people.

Another benefit of this type of communications is what I call the believability factor. If for example we want to build a trash-to-steam plant in a neighborhood, we will send into that neighborhood our Vice President of Operations to give a full explanation of the proposed plant. It makes all the difference in the world if he has met with the group before. He is not someone who is a sudden substitute for a PR person who had been dealing with the group prior to the trash-to-steam plant proposal. He is a familiar face. They are used to him and hopefully there is some rapport and trust already existing. He brings from his prior contacts some understanding of the Community's needs, fears and attitudes.

I would recommend to you the Consumer Round Table technique that we have adopted in the American Gas Association. It has been a most effective tool in opening up new areas of communication between the Gas Industry, representatives of its individual member companies and a wide array of various consumer groups.

One of our earlier lessons taught by the Round Table was that a spokesperson did not necessarily represent a constituency and so we have learned to examine whether or not a spokesperson is grinding a personal axe or is in fact speaking for a genuine constituency with a valid and legitimate concern.

The Round Table Technique is particularly effective because it relieves all parties from the pressures of constituencies and the press. An honest exchange of communications can be difficult if not impossible unless it can be conducted in an open and relaxed manner free of these pressures.

Through the round table we have found it possible to build viable ties with realistic representatives of consumers who are our customers. Examples of this have been the joint efforts of the NAACP and AGA on the subject of gas deregulation and in another area.php The National Association of Retired Teachers, the Urban League and AGA have joined in trying to have passed, meaningful legislation on the matter of fuel subsidies.

The famous bottom line? Well I'd say it has several components.

One -- The corporate check, donation, conscience money, or whatever you care to call it is no longer enough.

Two -- Let's eliminate the costly brochures, charts and audio-visual presentations that when broken down usually turn out to be little more than cosmetic.

Three -- and I'm certain some of you may not like this but let's get rid of the consultants. If we do the job properly there is no need for them.

Let's get to the fabric of our society communications.

Communications, and an honest commitment by the very top executives in an organization to communications can eliminate the consultants and the Urban Affairs specialists as well as the self-appointed consumer spokesperson - and professional
agitator.

And in communications we should try to apply the words of the wise old philosopher -- My Marine Corp. Drill Instructor -- KISS -- Keep It Simple Stupid.
If I convey anything today, I hope it will be the significance of the energy choices we must make as we start in the 80's and the nature of how those choices are now being made.

For this reason I'm going to borrow a metaphor from Robert Frost that was first applied to the energy situation by Amory Lovins.

Two roads diverged in a yellow wood,
And sorry I could not travel both...
Yet knowing how way leads on to way,
I doubted if I should ever come back....
Two roads diverged in a wood, and I--
I took the one less traveled by,
And that has made all the difference.

--Robert Frost

Fortunately for America we can see the two diverging energy paths clearly. One path is a ruinous dead end—a path characterized by hardships—uncontrollable inflation, economic stagnation, deeper poverty, social disunity and freedoms compromised. The other path is benign and infinite--this path leads to economic stability and growth, to greater equities and freedoms. Unfortunately, we as a people are not making the choice. Rather we are being dragged down the wrong path by our leaders and by the economic interests that have the most to gain from that path.

The cornerstone of the Administration and the oil companies' energy path is reliance on the price system. We are told, usually in either a scolding or condescending tone, that until we remove all controls from the price of energy we are being penny wise and pound foolish; that until we stop treating ourselves to artificially low prices for energy we can't possibly hope to kick our foreign oil habit or have guaranteed supplies in the future. This is bunk. Today we are paying energy prices which are artificially high and we found in the search for energy independence and surety of supply because the nation is paralyzed by the consequences of throwing ever increasing billions of dollars down a hopelessly empty well.

Artificially high energy prices are bad economic policy. Rising energy prices are at the root of our inflation problem. In the last year energy prices have risen by 46 percent while the prices of all other goods and services, including housing, have risen by only 11 percent.

A commitment to high energy prices is a commitment to a drastically reduced standard of living for the average consumer, and it is a commitment to slower economic growth, lower productivity, worsened balance of payments, and high unemployment. These results are guaranteed by the nature of the decontrol policy which, by definition, means that more and more of the nation's resources must be diverted from productive use to produce the same amount or less energy. This abstraction is concrete for the consumer who has to go into debt to send a child to college because it costs twice as much to fill the tank and heat the home; for the manufacturer losing its export market as its products are priced out by energy costs; for the worker who is laid off or the small business closed because energy prices have made their products unaffordable to consumers with shrinking disposable income.

Artificially high energy prices are bad social policy. The decontrol of oil alone will result in consumers spending an additional trillion dollars over this decade for oil. That is more than $1,000 a year, every year, for a family of four. The consequences high energy prices have had for the poor, and increasingly the middle class, are devastating and unavoidable. The poorest fifth of this nation is being forced to spend more than 30 percent of their incomes just to keep their homes warm and to drive to work. In the north the percentage is even higher, as virtually all their winter income is devoted to staying warm and eating.

If all of this were not condemnation enough for a policy of artificially high energy prices the fact is that artificially high energy prices are not even sound energy policy. The price system may work on the blackboard but it fails miserably at the filling station.

There are two keys to understanding why decontrol and high prices are bad energy policy. The first is to realize that very little room for discretionary conservation exists; most energy is used to run factories, heat homes, raise crops and drive to work. Since the price mechanism works primarily through behavior, price induced conservation on a large scale means factories that produce less, farms with smaller harvests, homes that are too cold and people with no way to get to work.

The second key is how we define the costs and the benefits to society of higher energy prices. This is particularly true for decontrol. The major cost of decontrol is not the price we pay for the additional barrels of oil that will be found because domestic producers know that they can now receive the $30 a barrel world price. That cost is only the tip of the iceberg. The overwhelming cost of decontrol is the cost of allowing the oil companies to charge $30 a barrel for the millions of barrels a day that have already been discovered and are being produced and controlled at either $6 or $14 a barrel.

This has certainly been the case for gasoline consumption. Lately proponents of the price system have been pointing to a nine percent drop in gasoline consumption over the last year as