Cost-benefit ratios range from 9.02 to 11.84 and are approximately eight times greater than cost-benefit ratios for sleepwear (Model I). Use of the more realistic Model II should result in even greater differences in view of the importance of cotton and polyester/cotton blends in the children's clothing market. The results indicate that the sleepwear standard is cost effective in contrast to the hypothetical clothing standard.

Comparison of Flammability Standards for Children's Sleepwear and Clothing

The results for Model I, based on a price elasticity of demand of one, are summarized below.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Item</th>
<th>Cost-Benefit Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-6X Sleepwear</td>
<td>0.70 - 0.84</td>
</tr>
<tr>
<td>2</td>
<td>7-14 Sleepwear</td>
<td>1.15 - 1.33</td>
</tr>
<tr>
<td>3</td>
<td>0-6X Clothing</td>
<td>3.59 - 4.53</td>
</tr>
<tr>
<td>4</td>
<td>7-14 Clothing</td>
<td>9.02 - 10.52</td>
</tr>
</tbody>
</table>

The results indicate the role of cost-benefit analysis in program comparisons. Thus every dollar saved through a reduction in burn injuries and deaths requires expenditures ranging from nine to ten dollars in the case of the 7-14 clothing standard as opposed to expenditures of less than one dollar in the case of the 0-6X sleepwear standard.

These results provide support for the decision of the U.S. Department of Commerce and the Consumer Product Safety Commission to develop mandatory standards for children's sleepwear while delaying the introduction of mandatory standards for children's clothing. The different cost-benefit ratios for the two merchandise categories indicate a major problem facing a regulatory agency. When the scope of mandatory standards is increased, the cost to the consumer may also increase without a commensurate increase in benefits if the target population is expanded to include the "low-risk" groups. Thus, while it may be more efficient from an engineering and regulatory perspective to issue generic standards, e.g., a general wearing apparel standard, it may also be cost-ineffective. An alternative strategy is to conduct consumer education programs in the area of flammable fabrics. Education programs may be preferable to safety standards when the hazard depends on conditions of use. In addition the indirect costs of product regulation are avoided. Thus, in the case of the children's sleepwear standard, questions were raised concerning the potential risk of cancer from certain FR apparel due to chemical treatment. The greater the scope of the regulatory activity the more important the estimation of indirect costs.
Conclusion

There has been increased interest in consumer protection in recent years, particularly in the area of product safety. Possible consumer product safety programs which might be initiated by government and/or private enterprise include:

a) education
b) education combined with voluntary marketing of safety standards
c) mandatory safety standards, and
d) product banning.

Two major interdependent issues facing the government are a) determination of the most appropriate level of safety for a particular product and b) selection of the most cost-effective consumer protection program. Both of these issues require a detailed appraisal of the nature and magnitude of the risks associated with a consumer product and the costs and benefits of a protective program. Both costs and benefits should be expressed in monetary terms.

The results of this study indicate the role of cost-benefit analysis in evaluating and comparing mandatory safety standards for consumer products. Similar analyses could be applied to the alternative consumer protection strategies mentioned earlier. Such analyses should assist in the selection of the most effective consumer product safety program. However, it is important in such analyses to remember the limitations of cost-benefit analysis. Major limitations concern the prices used to measure costs and benefits (in particular indirect costs and benefits), the appropriate rate of discount for ensuring that costs and benefits are measured in the same time frame, treatment of uncertainty, and spillover costs and benefits. Provided such limitations are recognized, cost-benefit analysis can make a valuable contribution to the consumer product safety decision process.

A major advantage of cost-benefit analysis is that it makes explicit the costs and benefits on which decisions are based. A quantitative assessment of costs and benefits, including the underlying assumptions, replaces personal hunches or vague qualitative judgments. Society is provided with a clearer understanding of the problem and the reasons why a particular regulatory activity was or was not undertaken. The detailing of costs and benefits also serves to focus the decision process on objective rather than on subjective considerations. This is particularly important in an area where emotionalism renders objectivity difficult and where political pressures may result in a demand for action which is detrimental to the public interest in the long-run.

Finally in any discussion concerning the role of cost-benefit analysis in program evaluation or selection, it is important to separate the social or political decision from the economic decision. Thus, the amount of money that society is willing to spend to reduce injuries and deaths is a political decision which may vary
over time and from culture to culture. However, the number of injuries or deaths that may be prevented for a given expenditure of resources is an economic decision. Failure to recognize the importance of the economic component will result in unnecessary injuries and deaths since limited resources will have been used unproductively.
FOOTNOTES

1. Most safety regulations provide for a time period between the promulgation and effective date of the regulation. If the transition period is sufficient to permit adjustment by manufacturers then no producer losses should be incurred since sales and production of the non-complying product are permitted during the transition period. One method for determining the existence of long-run equilibrium is to examine price changes over time once the standard becomes effective. If the industry is in long-run equilibrium once the standard becomes effective then no further price increase should occur.


3. Ideally the compensated demand curve should be used to estimate the benefits from consumption. The compensated demand curve and the demand curve are equivalent when the income effect of a price change may be neglected.

The National Consumers League has developed a program that trains representatives from local communities so that these representatives may offer classes in consumer credit and assertiveness training development to others. Over 3,000 consumers have enrolled in the program. An evaluation has indicated that participants have increased their consumer knowledge in credit by 50% and have increased assertiveness behavior by 37%.

The National Consumers League is completing its second year of a federally funded project to assist consumers in developing consumer skills through the use of assertiveness training. The specific project focused on credit and warranties. However, the basic tenets of the skill development emphasized could be utilized in all areas of consumer education.

Representatives from four communities in the states of New Jersey, New York, Ohio, and California were offered a three day training session that involved development of assertiveness skills and factual information regarding credit and warranties. The purpose of the session was to train these representatives so that they could offer similar workshops to members of their local communities.

Approximately one month after the training session a "reconnect" meeting was held to enumerate the process each representative would pursue to accomplish the task. Areas such as which modules would be taught, time of the sessions, teaching methods, anticipated concerns, etc. were explored.

Most of the representatives were not professional educators. Therefore, techniques most utilized by professional adult educators i.e. role playing, personal experiences, guest speakers, field trips, etc. were introduced.

Prior to the involvement by the community representatives a manual was developed that included lessons that could be utilized by the trainers when they returned to their local communities. The Manual has been revised to better meet the needs of low income and Spanish speaking consumers. "Handling Your Money," a money management module that for example reviews basic check writing procedures, is one revision that has proved to be very effective.

*Ms. Savage, Project Director and Ms. Clark, Staff Trainer, National Consumers League
We have had many requests from professional educators who are currently using sections of our Manual in their classes. Further, adult educators have utilized the materials for special programs they have developed for their constituents.

Since the initiation of the project, approximately 50 teams of representatives from local communities have been trained. These representatives have reached over 3,000 consumers.

An evaluation of the project has determined that consumers have increased their content knowledge by fifty percent. Further, assertiveness behavior development has increased by 37%.

Manuals that include instructor's guides, student guides, and how to initiate the program in the local community are available for $3.75 from:

Ms. Helen Savage  
Project Director  
National Consumers League  
128 Connecticut Ave., N.W.  
Suite 616  
Washington, D.C. 20036
NON-MONETARY COSTS ASSOCIATED WITH CONSUMER FRAUD AND DISSATISFACTION OF THE ELDERLY

Robert Perloff and Patrick McCaskey*

Unfairness awareness, propensity to complain, assertiveness of complaint behavior, and the non-monetary costs associated with consumer fraud and the dissatisfaction of the elderly are examined. In light of current research data it is suggested that the overall importance, as well as the incidence, of non-monetary costs may well exceed the dollar costs associated with such experiences. Implications for educational programs, consumer advocacy, agency programs, and future research on consumer behavior in general, and for the elderly specifically, are put forward.

A significant amount of published research has dealt with the question of consumer dissatisfaction in the marketplace. A somewhat lesser amount has addressed the area of fraud and deception of consumers. Very little, if any, however, has considered the issue of fraud and dissatisfaction of the elderly as consumers. The traditional perspective of senior citizens and their marketplace behavior has held that they are: (1) more susceptible to consumer fraud, (2) given their level of marketplace participation, more often victimized, (3) less likely to complain when they are taken advantage of, and (4) subject to relatively more devastating monetary and non-monetary costs associated with their unfavorable marketplace experiences.

Several factors are cited to support the contention that the elderly consumers are particularly susceptible to unfair practices in the marketplace. The elderly are portrayed as both physically and mentally less able to cope with the pressures and subtleties of the marketplace. Lack of physical mobility is noted for its impact on lessening the number or variety of shopping alternatives available to the elderly. It is suggested that, with the demise of friends, relatives and acquaintances, the elderly experience not only a traumatic life-style transition, but a reduced number of sources of information or advice for use in reaching buying decisions.

Roughly 10 percent of the U.S. population might be classified as elderly, and--barring untimely demise--most of us face the prospect of ourselves joining this group. Thus, consideration of the consumer problems of the elderly is not only of importance for the bettering of "their" state of existence, but should be of eventual importance to us all as potential future victims. While an extremely broad range of questions is being investigated within the framework of our research, of principal concern in the following

*Mr. Perloff, Professor-University of Pittsburgh; Mr. McCaskey, Graduate Student-University of Pittsburgh
is the basically unexplored area of the impact of non-monetary costs associated with fraud and consumer dissatisfaction of the elderly.

Sample

The respondents used for the following study were a stratified random sample of approximately 2,800 mail panel participants. This sample was devised to contain both a large group of respondents over age 65 (approximately N = 1,800), and a comparison control group under age 65 (approximately N = 1,000). On a national comparison basis the sample was somewhat better educated, earned a slightly higher income, and was underrepresentative of blacks and the rural or isolated elderly. None of these limitations were substantial, and it was felt that, if they biased the results in any fashion, it would be negative bias, or contrary to the hypotheses being investigated.

Research Methodology

An extensive, two-year study was initiated in the Fall of 1976 to investigate the experiences of elderly consumers as victims of white collar crime. The overall study has two primary objectives: (1) it seeks a better understanding of the state of nature as it relates to the experiences of the elderly as consumers, and (2) it is aimed at the development of specific policy implications or suggestions for improving the satisfaction the elderly receive in the marketplace. To accomplish these goals a multi-method research approach is being employed.

At the outset, focus groups comprised of elderly consumers were established to discuss problems from their point of view. An effort was made to conduct these sessions in such a manner as to insure input from broad social and economic strata. These sessions were conducted early in the research process to provide material for inclusion in later mail questionnaires as well as agency, business firm, and supplemental consumer interviews.

A major portion of the data collection involved a two-wave, mailed, panel survey of approximately 1,000 people under age 65 and 1,800 people over 65 years of age. The surveys consisted of highly structured questionnaires. The first wave, completed in early 1977, probed: (1) use and experiences with such sales channels as mail order, door-to-door, telephone, and in-store buying, (2) general media usage habits, (3) sources of information used in reaching buying decisions, (4) recent and intended use and problems with 34 specific product and service categories, (5) descriptions of their worst buying experience, (6) the monetary loss, and probes into the nature of non-monetary costs associated with this worst experience, (7) perceived unfairness of thirty-one common, but possibly questionable, business practices, and (8) a series of questions aimed at the measurement of social involvement and demographic variables.
The second wave, completed in late 1977, considered not only unsatisfactory buying experiences, but also positive experiences. In addition, it examined changes in perceptions over time, and considered topics raised in the first wave, but in greater depth. A series of questions were included which examined significant life cycle changes, and the impact of significant life events. The second wave also sought to establish a first step toward the development of an index of "social age," rather than "chronological age," through examination of the self-perceptions of the respondents.

Supplemental questionnaires are being administered to between 100 and 150 elderly consumers to augment the panel in certain underrepresented demographic groups including the male elderly living alone, black elderly, rural elderly, and the isolated elderly.

Interviews were also conducted with representatives of approximately 30 business firms which deal with the elderly. An effort was made to represent various sizes and types of firms--including those against whom complaints have been lodged by individuals claiming that those firms engage in questionable practices.

A series of interviews were conducted with agencies and organizations providing consumer-oriented and other services to the elderly. These interviews examined: (1) the nature and extent of their contact with the elderly, (2) their perceptions of the elderly consumer, (3) their estimation of the likelihood that the elderly would be victimized, and (4) their perception of how the elderly would respond or attempt to gain redress after an unfavorable experience.

**Initial Findings**

An initial, significant, finding of the research is a generally lower level of awareness of unfair business practices among those age 65 and over. The mail panel participants were asked to look over a list of thirty-one common selling practices and problems and indicate all those which they felt were unfair or set up to take advantage of the buyer. Those age 65 and over noted significantly fewer practices as questionable. These practices were arranged by stage in the buying process (i.e., before, when, and after you buy), and the relationship held throughout all three stages. A simple classification scheme of low, medium, and high unfairness awareness was developed, based upon the number of practices cited as unfair, and this variable crosstabulated with three age groups to highlight the relationships (see table 1). Given the large number of respondents, and the sizable difference, the relationships shown in table 1 are statistically significant at the p < .01 level.

In addition to the level of awareness, another relationship clearly noted is the respondent's propensity to complain. A critical incident technique was used in the first-wave questionnaire to focus the respondent's attention on the "worst buying experience." These results were also grouped by low, medium, and high and crosstabulated with age to highlight the relationships (see table 2). This relationship, once again, was statistically significant at the p < .01 level.
### TABLE 1

**Relationship Between Age and Unfairness Awareness**

<table>
<thead>
<tr>
<th>Age</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-34</td>
<td>8.4</td>
<td>50.2</td>
<td>41.4</td>
<td>100.0 (N=227)</td>
</tr>
<tr>
<td>35-64</td>
<td>16.2</td>
<td>42.3</td>
<td>41.5</td>
<td>100.0 (N=810)</td>
</tr>
<tr>
<td>65+</td>
<td>29.4</td>
<td>37.5</td>
<td>33.1</td>
<td>100.0 (N=1771)</td>
</tr>
</tbody>
</table>

$p < .01$

### TABLE 2

**Relationship Between Age and Propensity to Complain**

<table>
<thead>
<tr>
<th>Age</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-34</td>
<td>25.1</td>
<td>30.8</td>
<td>44.1</td>
<td>100.0 (N=227)</td>
</tr>
<tr>
<td>35-64</td>
<td>34.6</td>
<td>35.6</td>
<td>29.9</td>
<td>100.0 (N=810)</td>
</tr>
<tr>
<td>65+</td>
<td>53.9</td>
<td>30.7</td>
<td>15.5</td>
<td>100.0 (N=1771)</td>
</tr>
</tbody>
</table>

$p < .01$
In addition to the propensity to complain, the nature of the action taken was examined to determine the degree of assertiveness. Nonassertive action was taken to be deciding not to buy that product/service again, or deal with that company again, or complaining to family or friends. Lower assertive action was stopping payment, refusing to pay, or asking for a replacement or refund. Some higher assertive action was complaining to a salesperson, company/store, consumer agency, public agency, congressman, or writing a letter to a newspaper or magazine, or considering taking legal action. Much higher assertive action was a subgroup of the above, and included anything beyond complaining to a salesperson or company/store (see table 3). From table 3 it can be seen that those over age 65, at all levels of action, are less active in their complaining. It can also be noted that this group is significantly less active as the degree of assertiveness increases.

The survey also examined the amount of losses associated with this "single worst buying experience." Two types of losses were considered--monetary and non-monetary (see tables 4 & 5). For the respondents over age 65, approximately one-quarter suffered no monetary loss whatsoever in this "single worst buying experience." (table 4) It is noted that only 9.8% of these same respondents report no non-monetary costs associated with this experience. (table 5) For whatever conclusions might be drawn, it is also noted that, of those panel members over age 65 who chose to respond to questions about such experiences (N = 1,021), 64 chose to not respond to the question about the monetary costs associated with the experience, while only 29 did not answer the question concerning non-monetary costs. As can be seen from table 5 the most commonly cited types of non-monetary costs were: (1) anger, frustration - 66.2%, (2) inconvenience - 50.7%, (3) time - 40.9%, and (4) anxiety, fear or worry - 20.5%. While each of these is non-monetary in nature, it can be argued that each also has a clear dollar cost, whether it is the value of the time lost, or the impact upon both the quality and length of the life of the victim.

While not reproduced here, there were also other indications of non-monetary costs which appeared throughout the survey. For example, when asked to indicate why this experience was considered bad, 7.9 percent of those over 65 cited being "pressured or forced to pay for repairs or services that others were responsible for." Approximately 5 percent noted that "creditors threatened or harrassed me." When asked for reasons why they might have hesitated or failed to complain about the product/service, 4.9 percent of respondents over age 65 "thought it would be embarrassing," 7.3 percent "expected the person complained to would be angry, impolite, indifferent or hard to handle," 13.7 percent "didn't want to make trouble or be a nuisance," and 45 percent "didn't think anything they could do would make a difference." (Note: multiple responses possible).
### TABLE 3

Levels of Action Taken on Single Worst Buying Experience During the Past Two Years

<table>
<thead>
<tr>
<th>Age</th>
<th>No Action</th>
<th>Nonassertive Action</th>
<th>Lower Assertive Action</th>
<th>Some Higher Assertive Action</th>
<th>Much Higher Assertive Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 65</td>
<td>13.5</td>
<td>47.3</td>
<td>25.3</td>
<td>46.6</td>
<td>8.0</td>
</tr>
<tr>
<td>65+</td>
<td>15.1</td>
<td>28.1</td>
<td>14.5</td>
<td>31.1</td>
<td>2.9</td>
</tr>
</tbody>
</table>

(Note: Levels of Action are not mutually exclusive.)

P ≤ .01

Key: Nonassertive Action = Decided not to buy that product/service or deal with that company again, complained to family or friends.

Lower Assertive Action = Stopped payment or refused to pay, asked for replacement or refund.

Higher Assertive Action = Complained to salesperson, complained to company/store, complained to consumer agency, complained to public agency/Congressman, complained in letter to newspaper/magazine, considered taking legal action, consulted or hired a lawyer.

Much Higher Assertive Action = Generally means action beyond complaining to salesperson or company.
### TABLE 4

*Approximate Amount of Monetary Loss Associated With the Single Worst Buying Experience During the Past Two Years*

<table>
<thead>
<tr>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>24.7</td>
</tr>
<tr>
<td>$20 or less</td>
<td>18.0</td>
</tr>
<tr>
<td>$21 to $50</td>
<td>14.3</td>
</tr>
<tr>
<td>$51 to $100</td>
<td>15.4</td>
</tr>
<tr>
<td>$101 to $500</td>
<td>17.2</td>
</tr>
<tr>
<td>Over $500</td>
<td>10.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Respondents over age 65, N = 957

### TABLE 5

*Non-monetary Costs Reported, by Type, Associated With the Single Worst Buying Experience During the Past Two Years*

<table>
<thead>
<tr>
<th>Type Reported</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>40.9</td>
</tr>
<tr>
<td>Safety, physical injury</td>
<td>5.8</td>
</tr>
<tr>
<td>Inconvenience</td>
<td>50.7</td>
</tr>
<tr>
<td>Anger, frustration</td>
<td>66.2</td>
</tr>
<tr>
<td>Embarrassment</td>
<td>9.8</td>
</tr>
<tr>
<td>Anxiety, fear or worry</td>
<td>20.5</td>
</tr>
<tr>
<td>Other</td>
<td>0.3</td>
</tr>
<tr>
<td>None</td>
<td>9.8</td>
</tr>
</tbody>
</table>

(Does not total to 100% due to opportunity to check more than one answer.)

*Respondents over age 65, N = 992*
From the focus groups, conducted prior to the survey, certain illustrations were also given of non-monetary costs associated with consumer dissatisfaction. Simple problems with mobility increased significantly the effort needed to take complaint action. Participants reported fears of blacklisting by contractors if they were to complain, and generally a sense of being helpless to affect a change for the better.

Respondents in personal interviews cited similar difficulties. For example, one elderly Pittsburgh couple, who experienced problems with their landlord not providing ample heat during the winter of 1976, indicated that, although all of the tenants in their senior citizen's apartment building experienced similar problems, none would sign a petition or take other assertive action. When probed further it became apparent that those who would not take action feared: (1) being forced to move and the costs involved, (2) loss of the convenience of a location near shopping and transportation, (3) being harrassed, and (4) the major disruption of their lives associated with the possibility of eviction. The motivating force for the subjects of our interview to take action was fear for the health of the wife, given her impending return from the hospital to a cold apartment. It is noted that this couple was indeed subsequently sued by the landlord for breaking a signed lease, but that the courts ruled in favor of the couple.

Another factor examined was the relationship between the psychological loss, or non-monetary costs, and the assertiveness of the action taken (see table 6). With the exception of the "much higher assertive action," respondents over age 65 took less action in each instance where the non-monetary costs were higher--more than one reported--than was taken by those under age 65. This may indicate those over 65 are less able to handle serious problems or, since psychological loss potential increases with assertive complaining, may simply show that they pursue complaints less fully.

Implications of Research Findings

The preliminary results are encouraging in the richness of the data, but discouraging in their implications. The difference in awareness, which was found to be associated with age, suggests that an important segment of the nation's population has not been fully reached by consumer education efforts. The second, and equally important, educational consideration is found in the propensity to complain data. Here the problem is two-fold. The educational efforts must attack an awareness of not only when to complain, but how to complain.

The assertiveness data suggest that the basic position taken by many consumer advocates and/or agencies, that of responding to complaints, is not well suited to the elderly consumer. Rather than waiting for the complaint to surface, they may
TABLE 6

Levels of Action for Single Worst Buying Experience as a Function of the Psychological Loss (Costs Other Than Money) Suffered for The Two Age Groups

<table>
<thead>
<tr>
<th></th>
<th>No Action</th>
<th>Nonassertive Action</th>
<th>Lower Assertive Action</th>
<th>Some Higher Assertive Action</th>
<th>Much Higher Assertive Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>65 and Over</td>
<td>11.7</td>
<td>2.9</td>
<td>17.4</td>
<td>10.4</td>
<td>7.3</td>
</tr>
<tr>
<td>Under 65</td>
<td>10.0</td>
<td>3.4</td>
<td>20.7</td>
<td>26.3</td>
<td>9.4</td>
</tr>
</tbody>
</table>

(Note: Levels of Action are not mutually exclusive.)

p < .01
better serve the elderly segment of the population by taking a more proactive stance and seeking out the sources and instances of discontent.

The significant extent of non-monetary costs, when taken with the other survey results showing a possibly higher susceptibility to fraud and a lower propensity to complain in those over 65, suggests several implications. There is a clear need for a reconceptualization of the bases used for future research of dissatisfaction and consumer fraud to include the dimension of non-monetary costs. We suggest that the overall importance, as well as the incidence, of non-monetary costs may well exceed the dollar costs associated with such experiences. The need for the inclusion of attempts to measure such variables in future studies is thus indicated.

One of the concerns voiced or implied in responses to our research queries was the futility of seeking satisfaction when compared with the psychological or non-monetary costs involved with such actions. There is a need for consideration of non-monetary costs in social (and governmental) programs and services aimed at gaining redress for consumer dissatisfaction and victimization by fraud. The relatively higher incidence of difficulties for those over age 65 calls specifically for a redoubled effort to build such factors into programs aimed at assisting the elderly.

Finally, a new concern or sensitivity to such issues as non-monetary costs is needed in the development of educational programs for consumers—especially the elderly consumer. Proactive efforts to reach the elderly are called for. These efforts, however, must not be self-defeating because of a failure to recognize physical, social, and psychological characteristics of elderly consumers—characteristics which can serve as a barrier to educational effectiveness.

Areas for Future Research

A clear difficulty exists in the classification of people as either elderly or non-elderly purely on the basis of chronological age. Most certainly there is a high correlation between those factors already cited as adversely affecting marketplace behavior and the age of the consumer. We suggest, however, that social scientists and the designers of government and other social programs have been too long guided by chronological age in their designation of the elderly. Just what is the magic that at age 65 turns individuals into elderly individuals? To a degree it may even be suggested that, in efforts to care for the elderly, those over 65 have, in the past, been legislated into a state of poverty through forced retirement and the reliance upon social security income, leading to the popular stereotype of elderly persons as inept and unresponsive. In place of chronological age, therefore, we suggest that future
attempts be made to derive an index of age transcending chronological age alone. This index might consist of such elements as biological age, psychological age, physiological age, and social age in some combination reflecting the relative impact of each component upon the resultant ability of the person to perform or behave satisfactorily or acceptably in his or her professional, social and personal lives. Unfortunately, the data are classified by chronological age. However, we are attempting to define at least a start towards a more meaningful index for the classification of the elderly. Such an index will lead to a better understanding of not only the marketplace behavior of the elderly and non-elderly, but aid in the redesign and proper directing of programs, educational and otherwise, to redress or lower both the monetary and non-monetary costs associated with marketplace dissatisfaction and consumer fraud.

*This research is supported by Grant #5-38131 from the Administration on Aging of the Department of Health, Education and Welfare.*
CONSUMER ALIENATION AND FOOD SHOPPING
AN EXPLORATORY ANALYSIS OF THE BEHAVIOR OF THE ELDERLY

Dr. A. Wm. Gustafson, Dr. Wm. Bearden
Dr. J. Barry Mason*

The present study attempted to examine the nature of the relationships between feelings of alienation among the elderly and a variety of measures reflecting consumer shopping behavior and overall satisfaction with life. Elderly grocery shoppers who were more alienated had lower life satisfaction; were less educated; had a negative image of food shopping; had a less adequate income; and had a financial situation that was worse than five years ago. Food shopping behavior as measured by this study had only limited success in discriminating between group membership. Satisfaction and perception variables (e.g., adequacy of income) seemed to offer the most promise for future analysis.

Introduction

Is consumer satisfaction a basic tenent or a normative goal? Functioning as an efficient and effective consumer as a prerequisite to being satisfied within our complex market system is no easy task. Evidence exists of the difficulties and dissatisfaction of the urban poor, blacks, Hispanics, those with lower levels of education, and the elderly in the marketplace. The elderly consumer is particularly affected by problems due to low income, lower levels of education, and the physical and mental difficulties associated with advancing age. The combination is a frequent cause of serious economic and psychological problems.

The present study attempted to examine the nature of the relationships between feelings of alienation among the elderly and a variety of measures reflecting consumer shopping behavior and overall satisfaction with life. Specifically, discriminant analysis was used to predict elderly alienation, and some interpretation of the resulting coefficients was provided.

Methodology

The interview schedule was composed of sections covering shopping behavior, (time of day, preferred day or days, information aids, and complaint behavior) transportation, health, consumerism, life satisfaction, alienation, quality of life, and several socio-economic variables.

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Dependent Variable

Feelings of alienation were assessed by having respondents reply to the 24 five-point Likert "agree-disagree" statements comprising Dean's alienation scale.¹,² For the purposes of this study, a median split of the alienation scores of respondents was used to divide the sample into two groups. The scores ranged from 42 to 96 with a lower score indicating a higher degree of alienation. Fifty-seven respondents were in the group with a higher degree of alienation while 53 comprised the lower group.

Independent Variables

Twenty variables were selected for inclusion in this analysis of elderly consumer feelings of alienation. Nine of the measures reflected attitudes and behavior regarding food shopping. Four socioeconomic characteristics were included. The remaining variables reflected a series of satisfaction and aspiration questions regarding the socioeconomic situations of the respondents. Several variables were grouped using investigators' judgment. When it was necessary to group a scaled variable, conservative criteria were used which would have lessened the likelihood of obtaining significance.

Five of the twenty variables were scales. Scales measuring attitudes toward food shopping and another to measure shopping attitudes in general were developed for use in this study.

The financial situation of each household was operationally defined as an aggregate score of each respondent's answers to a series of Likert statements reflecting the occurrence of thirteen frequently encountered financial problems. The statements were scored four to one and were labeled often, sometimes, seldom, and never. Specifically, the interviewers used the following instructions: "Aside from not having enough money, which of the following problems do you have and how often do you have this problem?"³

Consumer satisfaction was assessed by having each member of the elderly sample indicate their agreement, disagreement, or uncertainty regarding 15 items of the 82 statements comprising the Consumer Discontent Scale recently developed and tested by Lundstrom and Lamont.³ Eight negative and seven positively worded statements specifically reflecting individual satisfaction with consumer experiences and business practices were selected (e.g., "the quality of goods has consistently improved over the years," "the only person who cares about the consumer is the consumer himself"). Individual responses to the 15 statements were recorded and combined into an overall score reflecting elderly satisfaction/discontent with their interface with the business environment.
Individual overall satisfaction with life was operationally defined by means of the 10-item version of the Life Satisfaction Index developed by Neugarten, Havighurst, and Tobin. The Index has been found to provide a reliable estimate of life satisfaction for both elderly and other age groups. The intent of the construct is to capture: zest for life as opposed to apathy; resolution and fortitude as opposed to resignation; congruence between desired and achieved goals; high physical, psychological, and social self-concept; and a happy optimistic mood tone. Respondents indicated their agreement, disagreement, or uncertainty regarding each item. The instructions used by each interviewer and item statements were similar to the following:

Some people are satisfied with the way they have lived their lives while others may be satisfied with some parts and dissatisfied with others. Please tell me if you agree, disagree, or are uncertain about each of the following statements:
1. The things I do now are as interesting to me as they ever were.
2. I have made plans for things I'll be doing a month or a year from now.

The index included seven positive and three negative statements. The positive items were scored 2 (agree), 1 (uncertain), and 0 (disagree).

Sample

The data were collected during summer, 1977, in a city with a population of approximately 65,000. All house owners who had registered for a special tax exemption were included in the population. In order to qualify for the exemption, the person registering must be living in the house; one person 65 years or older must be living in the house; and one person receiving less than $5,000 yearly income must be living in the house. The sample was selected at random from all exemptions listed in joint tenancy.

The sample consisted of 110 respondents who identified themselves as the "main grocery shopper" for the household. Sixteen of the respondents were male and 94 were female. The mean age of the respondents was 67 years. Over one-half of the respondents were between the ages of 66 and 75 years. Forty-two percent of the respondents reported incomes of $7,500 or more.

Results—Correlation Analysis

The intercorrelations of the components of alienation (e.g., normlessness, powerlessness, and social isolation) as well as component correlations with the summated concept are shown in Table 1.
The corresponding coefficients from Dean's research are shown in parentheses. All correlations were significant and positive (p < .001). The strongest association for the subscales occurred between normlessness and powerlessness (r = .79). The relationship of alienation to the concept components was strongest between alienation and powerlessness (r = .93).

Of even greater interest to this research is the similarity in both strength and direction of these results to those of the Dean study. While the scale was developed using a sample of voters, one might hypothesize that a sample composed entirely of elderly would evaluate alienation in a different way. The differences between the Dean coefficients and the coefficients found in this study were consistently quite small. Although the relationship between powerlessness and normlessness was stronger in this study, the results suggest an overall similarity between the underlying structure reported in the Dean study and that found in this study.

Discriminant Analysis

Stepwise discriminant analysis was used to identify those variables which contributed most to differentiating between elderly consumers with higher levels of alienation and lower levels of alienation.

Wilks lambda indicates the discriminating ability of the variables which has yet to be removed from the original set of variables in the function. Since the lambda coefficient is an inverse measure, the smaller the coefficient, the greater the information remaining in the set of variables. Wilks lambda was .708 with an F statistic (5 and 104 degrees of freedom) of 8.57 which was significant at the .001 level. However, caution is warranted since use of the coefficient should be based on a random sample.

The analytical ability of the discriminant coefficients to indicate relative importance and direction of influence of the independent variables was of concern. Variables which were significant are presented in Table 2. The magnitude of each coefficient represents the relative contribution of that variable to the function. Of the twenty variables, life satisfaction made the largest relative contribution to the function. There was little difference in the relative contribution of education of
the respondent and attitudes toward food shopping. The perceived adequacy of income made a slightly larger contribution than did the financial situation now compared to five years ago.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Discriminant* Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Satisfaction</td>
<td>.453</td>
</tr>
<tr>
<td>Education (highest year)</td>
<td>.357</td>
</tr>
<tr>
<td>Food Shopping Attitudes</td>
<td>.354</td>
</tr>
<tr>
<td>Adequacy of Income</td>
<td>.299</td>
</tr>
<tr>
<td>Finances Now Compared to 5 Years Ago</td>
<td>.264</td>
</tr>
</tbody>
</table>

*All coefficients were significant at the .001 level.

The sign of each discriminant coefficient gives some idea of trends within the function.

<table>
<thead>
<tr>
<th></th>
<th>High Alienation</th>
<th>Low Alienation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower life satisfaction</td>
<td>Higher life satisfaction</td>
<td></td>
</tr>
<tr>
<td>Less educated</td>
<td>More educated</td>
<td></td>
</tr>
<tr>
<td>Negative food shopping image</td>
<td>Positive food shopping image</td>
<td></td>
</tr>
<tr>
<td>Less adequate income</td>
<td>More adequate income</td>
<td></td>
</tr>
<tr>
<td>Financial situation worse</td>
<td>Financial situation better</td>
<td></td>
</tr>
</tbody>
</table>

Those respondents with high alienation tended to have a lower life satisfaction. Those with less education tended to be in the high alienation group. This finding supports the results of previous research.6,7 Those in the high alienation group tended to have a negative image of food shopping.

The remaining variables involved finances of the family. Income tended to be viewed as less adequate by those in the high alienation group. Those in the high alienation group tended to view their financial situation as having deteriorated compared to five years ago supporting earlier findings by Peterson.

The classification matrix is shown in Table 4. Caution is warranted in generalizing the results since there exists the possibility of bias in model development. The percent correctly classified is roughly equivalent to R² in regression analysis. The set of variables accurately predicted the group membership of 75 percent of the respondents.
TABLE 4
Classification Matrix

<table>
<thead>
<tr>
<th>Actual</th>
<th>Predicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Alienation</td>
<td>42</td>
</tr>
<tr>
<td>n=53</td>
<td>79%</td>
</tr>
<tr>
<td>High Alienation</td>
<td>17</td>
</tr>
<tr>
<td>n=57</td>
<td>30%</td>
</tr>
</tbody>
</table>

75% correctly classified

Discussion

This report presented the results of an exploratory study designed to examine the relationships between alienation, selected variables related to food shopping, and socioeconomic characteristics for a sample of elderly consumers. Elderly grocery shoppers who were more alienated had lower life satisfaction; were less educated; had a negative image of food shopping; had a less adequate income; and had a financial situation that was worse than five years ago. Food shopping behavior as measured by this study had only limited success in discriminating between group membership. Satisfaction and perception variables (e.g., adequacy of income) seemed to offer the most promise for future analysis.

Several considerations are important regarding this research. First, while this sample was relatively unique in that it was composed of older couples living in their homes, it does not adequately represent all elderly consumers. Elderly who reside in single person households or in apartment complexes for the elderly may not necessarily behave in the same way as this sample when shopping.

Additional work is needed on the various scales used in this study as well as other scales which may be used to analyze the attitudes and behavior of the elderly. Scales designed for and validated on randomly selected adult populations may not be reliable for use on restricted elderly samples. While food shopping image was significant in this study, more work needs to be done on the various shopping activities included in the scale items and on the measure to be used.
FOOTNOTES


CONSUMER EDUCATION PROGRAMS FOR THE ELDERLY

Dr. John Burton and Charles Hennon*

There is a wealth of consumer education material on the market today. However, very little of this information pertains to the elderly consumer. This may be because many feel consumer problems of the elderly are not different from other groups and/or that the methodological approaches to teaching the elderly are not different from other groups. There is evidence to suggest that there may be a need for different methodological approaches to teaching the elderly. A model presented describes a consumer education program for the elderly based on a needs assessment and the idea of having the elderly taught by non-professionals.

There are over 1500 audio-visual consumer education materials presently on the commercial market. Of this material, however, very little is targeted toward the elderly consumer. Few educational materials are suitable for adult audiences and very few of these are specifically directed toward the elderly.

Why are the elderly ignored when it comes to the development of consumer education material? Perhaps publishers do not see a profitable market in this area? Further, the elderly may not need consumer education materials different from those directed towards other age markets. It may be a waste of time and resources to develop materials for a specific population when materials developed for another population are adequate. Before we develop consumer education materials for the elderly we should first determine if there is a need for such material. Specifically, we should determine if the appropriate technique for teaching the elderly is different from other age groups and also whether there is consumer information and skills that are age specific for the elderly.

This investigation was conducted in order to determine relevant content for consumer education materials for the elderly. The needs assessment section was conducted by a research team composed of a family sociologist, a gerontologist and a consumer specialist. The instrument developed elicited a considerable amount of data, not only as to what the consumer problems of the elderly are, but how these problems relate to other factors such as marital status, education, financial status, age, and geographic location. Data were also collected relating to exchange of money and consumer advice between elderly parent and child and to the correlation between economic well being and life satisfaction.

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