

CONSUMERS' ATTITUDES TOWARD FEDERAL CONSUMER PROTECTIVE  
REGULATIONS AND FEDERAL CONSUMER EDUCATIONAL  
EFFORTS RELATED TO SELECTED CONSUMER  
PRODUCTS WHICH MAY BE HAZARDOUS TO  
HEALTH AND PHYSICAL SAFETY

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A DISSERTATION

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BY

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## TABLE OF CONTENTS

ACKNOWLEDGMENTS . . . . .	iii
LIST OF TABLES... . . . .	vii
Chapter	
I. INTRODUCTION . . . . .	1
Origin and Importance of Study . . . . .	1
Statement of the Problem . . . . .	2
Purpose of the Study . . . . .	4
Hypotheses . . . . .	5
Delimitations. . . . .	8
Definition of Terms. . . . .	9
II. REVIEW OF LITERATURE . . . . .	11
Evolution of Federal Consumer Protection . . . . .	11
Brief History of Federal	
Consumer Protection Laws . . . . .	11
Federal Consumer Protective Agencies . . . . .	15
An Act For Consumer Product Safety . . . . .	17
Creation of the Consumer Product	
Safety Commission. . . . .	17
Emerging Issues in Consumer Protection . . . . .	21
Business Opinions Concerning	
Consumer Protection. . . . .	21
Federal Government Opinions Concerning	
Consumer Protection. . . . .	25
Consumers' Opinions Concerning	
Consumer Protection. . . . .	32
Summary. . . . .	35
III. RESEARCH PROCEDURE . . . . .	38
Sample Design. . . . .	38
Selection of the Population. . . . .	38
Identification of Subjects . . . . .	39
Questionnaire. . . . .	40
Administering the Instrument . . . . .	42
Statistical Treatment of Data. . . . .	43

## Chapter

IV.	ANALYSIS OF DATA . . . . .	48
	Analysis of Demographic Data . . . . .	48
	Factor Analysis of Scale Data. . . . .	53
	Findings Related to the Hypothesis . . . . .	58
	Hypothesis I . . . . .	58
	Hypothesis II. . . . .	63
	Hypothesis III . . . . .	66
	Hypothesis IV. . . . .	71
	Hypothesis V . . . . .	74
V.	SUMMARY AND DISCUSSION . . . . .	78
	Summary. . . . .	78
	Discussion . . . . .	80
	Consumer's Attitudes . . . . .	80
	Consumer's Knowledge . . . . .	82
	Consumer Self Protection . . . . .	84
	Implications of the Study. . . . .	85
	Limitations of the Study . . . . .	86
	Suggestions for Further Research . . . . .	87
	Reference Notes . . . . .	89
	References. . . . .	93
APPENDICES		
A	. . . . .	97
B	. . . . .	102
C	. . . . .	104

# LIST OF TABLES

Table		Page
1	Questionnaire Return Results. . . . .	44
2	Percentage Distribution of Respondents by Household Composition. . . . .	49
3	Percentage Distribution of Respondents by Educational Level. . . . .	50
4	Percentage Distribution of Respondents by Theme of Employment. . . . .	51
5	Percentage Distribution of Respondents by State Residency. . . . .	52
6	Percentage Distribution of Respondents by Injury Experience. . . . .	52
7	Factor Analysis of Scale I--Consumers' Attitudes Toward Regulation . . . . .	54
8	Factor Analysis of Scale II--Consumers' Attitudes Toward Educational Efforts. . . . .	55
9	Factor Analysis of Scale III--Consumer Self Protection . . . . .	56
10	Factor Analysis of Scale V--Consumers' Knowledge of Regulation . . . . .	57
11	Factor Analysis of Scale V--Consumers' Knowledge of Educational Efforts. . . . .	58
12	Stepwise Multiple Regression--Scale I-- Significant Variables Related to Consumers' Attitudes Toward Federal Protective Regulation. . . . .	60
13	Canonical Correlations of Consumers' Attitudes Toward Federal Regulations. . . . .	62
14	Stepwise Multiple Regression--Scale II-- Significant Variables Related to Consumers' Attitudes Toward Federal Educational Efforts. . .	65

Table		Page
15	Stepwise Multiple Regression--Scale III-- Significant Variables Related to Consumer Self Protection . . . . .	68
16	Canonical Correlation of Consumer Self Protection. . . . .	70
17	Stepwise Multiple Regression--Scale IV-- Significant Variables Related to Consumers' Knowledge of Federal Educational Efforts. . . . .	73
18	Stepwise Multiple Regression--Scale V-- Significant Variables Related to Consumers' Knowledge of Federal Educational Efforts. . . . .	76

## CHAPTER I

### INTRODUCTION

#### Origin and Importance of Study

Consumer protection has, for the most part, been provided by the federal government in the form of protection regulation. Early in the consumer movement this regulation provided the most effective method of reducing injuries resulting from consumer products. Some consumer educational programs focusing on health and safety have been developed by the federal government; however, arguments have arisen regarding the balance needed between protective regulation and educational programs (Throelli & Throelli, 1977).

Even though protective regulation has proliferated at an increasing rate, many consumers believe their plight in the consumer market has become more acute and believe they still need assistance in protecting their consumer rights (Flashman & Retrum, 1978). As a counter opinion, some consumers are demanding potentially hazardous products such as cigarettes, saccharin, and fireworks be available on the open market (Pines & Glick, 1977). These latter voices have created some confusion as to the type of protection consumers want from potentially hazardous products.

Statement of the Problem

Studies conducted in 1969 by the National Center for Health Statistics (Note 1) of the Department of Health, Education, and Welfare of the National Safety Council (Note 2) reported that hazardous household products were responsible for more than 20 million serious injuries and 30,000 deaths annually. Statistics such as these forced an increase in the government's consumer protection role since "business volunteerism had no teeth" (Blum, 1977). In 1970 Congress received from the National Committee on Product Safety (Note 3) a comprehensive report about consumer safety. One result of this report was the establishment of the Consumer Product Safety Commission (CPSC) in 1972.

The primary purpose of the CPSC has been to substantially reduce injuries associated with certain types of consumer products (Note 4). The CPSC, along with other federal regulatory agencies, has worked toward this goal only recently to be challenged with charges of interfering with the consumer's right to choose and right to be informed (Blum, 1977).

The consumer's rights to: choose, be informed, and safety were identified by President Kennedy (Note 5). At the time of the President's message the general belief was that business was denying the consumer these freedoms. The reactions of some consumers and businesses in recent federal

consumer product hearings about automobile air bags (Note 6) and small gas space heaters (Consumer Product Safety Committee News Release, 1978, Note 7) have indicated that now the government may be interfering with, rather than ensuring, these rights.

Have the safety efforts of CPSC and other federal regulatory agencies resulted in limiting the consumer's freedom of choice? Are regulations reducing the availability of low cost products? Does the consumers' right to be informed merely require that they be informed of possible risks and they accept responsibility for deciding how to protect their health and safety? Has the consumer become sufficiently "information conscious"? Do consumers need less protection and more education?

Although opinion polls have surveyed the consumer's view regarding specific consumer problems such as labeling and recalls, the consumer's overall attitude toward consumer protection has not been documented. Those factors which influence the consumer's attitude about specific protection such as labeling standards or consumer protection in general remain to be verified. An investigation of consumer's knowledge and attitude toward federal consumer protection may identify those factors.



### Purpose of the Study

The overall purpose of this study was to investigate the consumer's attitude toward federal consumer protective regulation and educational efforts related to consumer products which may be hazardous to the consumer's health and physical safety. The specific purposes were to determine relationships between the following:

1. The consumer's attitude toward federal consumer protective regulation.
2. The consumer's attitude toward federal consumer educational efforts.
3. The consumer's willingness to accept responsibility for personal protection.
4. The consumer's knowledge about federal consumer protective regulation.
5. The consumer's knowledge about federal consumer educational efforts.
6. The consumer's personal demographic characteristics:
  - (a) household composition
  - (b) state of residence
  - (c) type of employment
  - (d) level of education
  - (e) injury experience

### Hypotheses

This investigation is organized around five major hypotheses. The hypotheses include:

1. There is no significant relationship between the consumer's attitude toward federal consumer protective regulation and the following:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's attitude toward federal consumer educational efforts
- (d) the consumer's willingness to accept responsibility for personal protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

2. There is no significant relationship between the consumer's attitude toward federal consumer educational efforts and the following:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's attitude toward federal consumer protective regulation
- (d) the consumer's willingness to accept responsibility for personal protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

3. There is no significant relationship between the consumer's willingness to accept responsibility for personal protection and the following:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's knowledge of federal consumer protective regulation

- (d) the consumer's attitude toward federal consumer educational efforts
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

4. There is no significant relationship between the consumer's knowledge about federal consumer protective regulation and the following:

- (a) the consumer's knowledge of federal consumer educational efforts
- (b) the consumer's attitude toward federal consumer protective regulation
- (c) the consumer's attitude toward federal consumer educational efforts
- (d) the consumer's willingness to accept responsibility for personal protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment

(4) level of education

(5) injury experience

5. There is no significant relationship between the consumer's knowledge about federal consumer educational efforts and the following:

(a) the consumer's knowledge of federal consumer protective regulation

(b) the consumer's attitude toward federal consumer protective regulation

(c) the consumer's attitude toward federal consumer educational efforts

(d) the consumer's willingness to accept responsibility for personal protection

(e) the consumer's personal demographic characteristics

(1) household composition

(2) state of residence

(3) theme of employment

(4) level of education

(5) injury experience

#### Delimitations

The scope of consumer protection requires a narrowing of possible influencing factors for this study. The delimitations of the study were as follows:

1. The study focused on social regulation which was concerned with health and physical safety.

2. The Consumer Product Safety Commission was the only federal governmental agency involved in the study.

3. Only consumer products under the jurisdiction of the Consumer Product Safety Commission were investigated in the study.

#### Definition of Terms

Consumer education: Providing the knowledge base necessary to aid consumers in the decision making act when purchasing and using consumer products.

Consumer protection: Measures taken by persons other than the individual consumer to safeguard the consumer from hazardous products.

Selected consumer products: Through a review of CPSC educational publications the following items were identified as consumer products which may be hazardous to health and physical safety. Baby furniture, children's toys, power tools, children's sleepware, electrical appliances, bicycles, skateboards, sleds, adult sports equipment, household construction materials, flammable products.

Household composition: The position of household members in the life cycle (Runyon, 1977). This is adult(s) without children present, (b) adult(s) with children under the age of 13 present, (c) adult(s) with children between

the ages of 13 and 17 present, (d) adult(s) without children or with children 18 years or older present.

Injury experience: Injuries to the consumer or a family member which may have resulted from consumer products during the past five years.

Domain: The concept (five) under investigation. Is parallel in use with "scale."

Scale: The unit designed to result in a score used in analysis of the data.

Variable: The subunits of factors and scales used to identify influencing events and/or used for creating scale scores.

Items: Individual questions composing the data collection instrument.

Canonical variate: Derived from the variables during canonical analysis.

Set: Derived from predictor variables and criterion variables in canonical analysis.

## CHAPTER II

### A REVIEW OF LITERATURE

#### Evolution of Federal Consumer Protection

Governmental consumer protection in the United States has existed for over 100 years. The first United States consumer protection law was the Mail Fraud Act of 1872 (Note 8). Since that act other laws, standards, and amendments have been passed to assist consumers with their selection of goods and services. Regulatory agencies have been established to enforce the laws. Educational programs have been developed to assist consumer decision making. However, the search for a methods of providing consumer protection which still satisfy business, government and consumers collectively continues.

#### Brief History of Federal Consumer Protection Laws

Consumer regulation 1872-1950. A review of consumer protection regulation illustrated that few consumer product laws were passed between 1872 and 1950. Early in the consumer movement, industry and business generally held a negative attitude toward any type of consumer protective regulation. This attitude resulted from such tactics as Congressman Rexford B. Tugwell's solicitation of opinions from industry and business while he kept them uninformed of



new emerging consumer legislation (Nadel, 1971). Opposition to consumer protection grew as periodicals and newspaper publishers established a black out of all consumer legislative news. Editors were afraid the passage of such acts would have regulated advertising and reduced their profits (Nadel, 1971). The general public often opposed consumer legislation because they believed the 1906 Food and Drug Act (Note 9) had solved all the major problems in food and drug sales.

Other opponents argued that increased legislation would interfere with the consumer's choice of products. Organizations such as the American Home Economics Association and the National Congress of Parents and Teachers joined forces and demanded legislation to strengthen the powers of the Food and Drug Administration and the establishment of standards for cosmetics. Ruth de Forest Lamb's book, American Chamber of Horrors, brought attention to product hazards. The author's descriptions of dangerous products caused the public to demand more consumer protection (Nadel, 1971; Herrman, 1978).

Consumer protection without regulation was attempted through self-regulation by business and industry. Manufacturers volunteered to establish their own safety standards and product information. This volunteer program was not considered effective since persons independent of the

companies were not permitted to certify that standards even existed (Rickover, 1977; Blum, 1977; Sethi, 1976).

Although there was strong opposition to consumer protection during this period some major consumer legislation was passed. Consumer protective laws, product standards, and amendments from 1872 to 1950 included:

1. The Sherman Antitrust Act of 1890 (Note 10) which prohibited price fixing and monopolies.
2. The Pure Food and Drug Act of 1906 (Note 9) which provided limited supervision of food and drug products.
3. The Meat Inspection Act of 1906 (Note 11) which established federal inspection of meat sold interstate.
4. The Clayton Act of 1914 (Note 12) which restricted business mergers.
5. The Federal Food, Drug, and Cosmetic Act of 1938 (Note 13) which strengthened the 1906 act and placed controls on cosmetics.
6. The Wheeler-Lea Amendment of 1938 (Note 14) which gave the Federal Trade Commission authority over unfair and deceptive acts, practices, and advertising.

The consumer movement slowed during the Great Depression and World War II and, as a result, little consumer legislative action occurred.

Consumer regulation 1950-1978. The Consumer Movement regained attention from 1950 through 1978 and consumer legislation increased. Some consumer legislative acts were passed during the 1950's; however, the 1960's witnessed the

greatest surge of consumer protective activities. Since the early 1960's consumer protection has become a political issue with Presidential candidates. Consumer representation was promised by President Kennedy, President Johnson, and President Nixon (Haemmel, George, & Bliss, 1975).

President Kennedy, in 1967 (Note 5), established the four consumer rights: The right to choose, the right to be informed, the right to be heard, and the right to safety.

President Johnson (Note 15) established the President's Committee on Consumer Interest which was "to represent no organized sector of American society but millions of individuals" (Nadel, 1971, p. 51). This committee's purpose was broad and resulted in little action to benefit the consumer. President Nixon created the Office of Consumer Affairs and provided it with the authority to resolve conflicts among government agencies which had differing approaches to consumer issues (Consumer Protection, 1976).

The United States congress passed nine major acts related to health and physical safety from 1953 to 1975. The acts established product standards for consumer concerns over flammable fabrics, toxic household chemicals, effective drugs, labeling of products, motor vehicles, radiation, poison prevention, and cancer causing products. The acts passed were:

1. The Flammable Fabrics of 1953 (Note 16), which was strengthened in 1967, was aimed at developing flammable standards for clothing and household textiles.
2. The Delaney Amendment of 1958 (Note 17) resulted in the banning of suspected cancer causing products.
3. The Federal Hazardous Substance Labeling Act of 1960 (Note 18) required warning and storage labels to be placed on highly toxic household chemicals.
4. The Kefauver-Harris Drug Amendment of 1962 (Note 19) required that manufacturers prove the effectiveness of drugs and labels bearing generic names.
5. The Fair Packaging and Labeling Act of 1966 (Note 20) required accurate informative product labels and standard package sizing.
6. The Motor Vehicle Safety Act of 1966 (Note 21) set standards for cars and safer traffic laws.
7. The Radiation Safety Act of 1968 (Note 22) provided mandatory standards for electronic products.
8. The Clean Air Act of 1970 (Note 23) established air quality standards and controls on air polluting products.
9. The Consumer Product Safety Act of 1972 (Note 24) gave the federal government control over hazardous products.

#### Federal Consumer Protective Agencies

Economic consumer protection. Six regulatory agencies have been established to provide consumer protection. Three are responsible for the consumer's economic protection. The first federal regulatory agency of this type was the

Interstate Commerce Commission, established in 1887. It was given authority to settle controversies about rates and charges involving the transportation of consumer products. The Federal Trade Commission protects the consumer by combating antitrust and deceptive advertising. The Securities and Exchange Commission controls competitive commission rates among stock brokers and over the stock exchange (U.S. Government Manual 1978/79, 1978).

Health and physical safety protection. Regulatory agencies which are primarily concerned with the consumer's health and physical safety are the Food and Drug Administration, the Environmental Protection Agency, and the Consumer Product Safety Commission. The Food and Drug Administration was formed in 1906 but had little power until 1938. Its purpose then became to supervise the health and safety quality of foods, drugs and cosmetics. Today the Food and Drug administration also regulates radiation products used for food and medical purposes. The Environmental Protection Agency works to establish clean air and water standards while the Consumer Product Safety Commission attempts to protect the consumer from potentially hazardous products (U.S. Governmental Manual 1978/79, 1978).

Consumer affairs office were established within each governmental department during the administration of President Ford. This action resulted in the creation of

fifty-five consumer affairs offices within the federal government alone (Wasserman, 1978).

Division of protection. Consumer protection during the last 111 years has covered a variety of consumer concerns ranging from an individual consumer's checking account to regulation of nuclear power plants. In the Study of Federal Regulations (Note 25) consumer protection was divided into: (a) economic regulation which is concerned with price controls, banking services credit, monopolistic practices, and deceptive business practices and (b) social regulation which is concerned with health, physical safety and environmental protection.

#### An Act For Consumer Product Safety

Since this study is concerned with health and physical safety related to hazardous products, further discussion of consumer protection will be limited accordingly. Only the Consumer Product Safety Commission (CPSC) will be discussed in depth here and throughout the remaining text. Discussion of consumer protection will be limited to health, physical safety, and environmental regulations and will exclude economic regulations.

#### Creation of the Consumer Product Safety Commission

Consumer product safety act. The National Commission on Product Safety, PL90-146 (Note 26), was established during the administration of President Johnson. The

Commission conducted a comprehensive study of the type and amount of protection consumers had against injuries caused by hazardous products. The results presented in the June 1970 final report lead to the passage of the Consumer Product Safety Act of 1972 (National Commission on Product Safety Final Report, Note 3).

Consumer amendments, laws, and product standards established prior to 1972 regulated specific products. Two examples of such laws are the 1953 Flammable Fabrics Act and the Refrigerator Act. The Consumer Product Safety Act of 1972, PL92-573 (Note 24) extended federal control over general consumer products. The Act established the Consumer Product Safety Commission and granted it power to regulate and ban products which presented a real hazard to consumers.

Purpose and goals of the CPSC. The Consumer Product Safety Act stated that the CPSC's primary purpose was to reduce consumer product injuries. The following goals were set to accomplish this purpose.

1. To protect the public against unreasonable risk or injuries.
2. To assist consumers to evaluate the comparative safety of consumer products.
3. To develop uniform safety standards and minimize conflicting state and local regulations.
4. To promote research and investigations into cause and prevention of product related death and injuries (Consumer Product Safety Act, 1972, Note 24, p. 1207-1208).

The congressional hearing on the extension of the Consumer Product Safety Act was held in May 1977. Following the hearing Consumer Product Safety Act of 1977, PL95-631 (Note 27) was drafted and passed. The law expanded the CPSC's goals and duties to include:

1. To provide more meaningful public participation in the development of proposed safety standards.
2. To provide foreign governments with accurate and timely data on safety of certain U.S. exports.
3. To establish a Toxicological Advisory Board (Consumer Product Safety Act, 1977, Note 27, p. 3742).

Jurisdiction of the CPSC. The major difference between the CPSC and other federal agencies is its authority to act upon the seizure, recall, and banning of potentially hazardous products without a court order (U.S. Government Manual 1978/79, 1978).

Regulatory authority of the CPSC consists of the power to issue and enforce safety standards governing the design, construction, contents, performance, and packaging/labeling of general consumer products. These products under the jurisdiction of the CPSC include bicycles, clothing, home cleaning products, scissors, nails, tacks, screws, cooking and heating equipment (except microwave products), appliances, sports and playground equipment, doors, windows, furniture, swimming pools, toys, nursery supplies and



equipment, farm and garden equipment, stairways, ramps, and landings (U.S. Government Manual 1978/79, 1978).

CPSC educational efforts. The CPSC faces a strong congressional mandate to educate and inform the general public about product safety (Note 27). The Commission's educational efforts are implemented through the use of written materials, films, speaker engagements, displays, and toll free information telephone numbers.

Various forms of written materials have been developed by the CPSC. Colorfully printed fact sheets provide information regarding past injuries related to a particular consumer product and describe how to inspect the various models of the product before purchases are made. Illustrated booklets and pamphlets about different consumer products under the CPSC's jurisdiction are available. Such materials explain how to select, store, maintain, and use the products. The CPSC attempts to reach Spanish speaking consumers by distributing bilingual materials. Low reading level adults and children are informed about product safety through the use of comic books.

Product safety curriculum guides concentrating on poisons and bicycle safety are available for elementary teachers. High school and adult courses can be supplemented with safety films and speakers. A series of exhibits and displays to be

used for conventions, conferences, fairs, and home shows are maintained by the CPSC.

A toll free product safety consumer information telephone line had been provided by the CPSC to answer consumer questions and to receive injury reports. In 1978 the "Hot Line" recorded 95,000 calls compared to 47,000 calls received in 1977. The CPSC has now extended this service by providing a teletype service for the deaf consumer population (Consumer News, 1979).

#### Emerging Issues in Consumer Protection

Government and business continues to disagree on effective methods of providing consumer protection. Regardless of the consumer protection methods used, whether regulation or education, business usually measures the protection's worth in monetary terms; the government in human cost; and consumers in personal physical and financial losses.

#### Business Opinions Concerning Consumer Protection

Cost of federal regulation. Business and industry have long been critics of federal governmental consumer protective regulations. Their objections to federal regulations are evaluated by cost/benefit analysis. Specific charges they have made include:

1. The government never balances the cost against the benefits of mandatory regulations.
2. Business can solve problems cheaper and quicker without federal interference.

3. The only costs are those indirectly associated with standards compliance.
4. Increased prices to consumers reflect the actual costs of compliance with the federal standards (Pittle, 1976, p. 139).

The monetary cost of federal government regulation is most often cited by business and industry as the major problem with regulation. Wedernbaum (1978) stated that federally mandated safety features for the 1978 automobile average \$666.00 per automobile. Home construction regulations and warranties added \$2,000.00 to the average new home built in 1978. In the health field the Hospital Association of New York conducted a study which stated that 25% of the 1977 hospital costs in New York were spent to comply with government regulations (Study on Federal Regulations, Note 25).

The federal regulations required for consumer protection are not only considered a problem for business but a higher expense for the consumer. Paul (1978) said the governmental regulations on consumer goods and services in 1979 would be \$500.00 per capita. This author did not, however, consider the cost saved which resulted from the reduced number of injuries.

The recall of defective products has been another cause of complaint by business and industry. The Senate Commerce Committee attempted to protect owners of recalled automobiles

from the repair expense. The committee ruled that the manufacturers were financially responsible for the recalls. However, Chester B. Baron (Note 28), General Manager of Parts and Service Division of Ford Motor Company, stated that the recall expenses were added to new car prices and to regular labor maintenance charges. The final result of the action leaves the consumer paying the recall bill.

Threat to the free market. From a socioeconomic view, the critics repeatedly battle product regulation stating:

It's a free market. Consumers are free to choose whatever they want. Unsafe products will be forced off the market because consumers will refuse to purchase them (Pittle, 1976, p. 133).

Graboswki and Veron (1978) have supported the argument for the free market by showing that 1976 proposed lawn mower standards were so expensive that the small producer would have been eliminated if the regulation was enforced.

Consumer behavior as a safety factor. Business also charges that consumers are seldom injured by defective products. The injury usually results from consumer behavior. An Indiana University study implied human factors such as speed, drinking, and bad decision making were the cause for seventy-five percent of the Indiana automobile accidents. Twenty percent of the accidents were caused by environmental factors such as icy roads and poor highway design. Only five percent of the accidents were related to vehicle

factors. The vehicle factors such as bald tires and over/underinflated tires comprised a large part of the five percent (Note 25).

Human error, or consumer behavior, has been cited by business as the reason for most injuries. Business has opposed additional product standards and stated that everyone has been burdened with the cost of safety due to the recklessness of a few consumers. They further argue that the increased cost of supplying safety features have made the products too expensive for the low income consumer (Feldman, 1977).

Educating the consumer. Business corporations and institutes have attempted to develop and expand safety campaigns through educational efforts. The 1977 Implementation of the Consumer Product Safety Act hearings recognized the American Pharmaceutical Association for its volunteer work throughout Poison Prevention Week (Dix, Note 29). The recent interest in citizen band transmission has resulted in increased numbers of consumer injuries during antenna installations. The Electric Power Trade Association has attempted to reduce the number of injuries by mounting an extensive educational effort warning consumers of possible hazards during installations.

Other businesses and associations such as the Bicycle Manufacturers, the Power Tool Institute, J. C. Penney

Company and Travellers Insurance Company have produced classroom educational material to assist adults in consumer decision making and to develop safety awareness in children as well as adults (Peyton, Note 30).

Federal Government Opinions Concerning Consumer Protection

Regulation through product standards. While business has criticized the government for the establishment of too many regulations and standards, other organizations have charged the government with neglect and lack of intervention in product safety. The 1978 Consumer Product Safety Commission evaluation hearings in the United States House of Representatives noted that Linda Hudak (Note 3), legislative director for the Consumer Federation of America, criticized the Commission for establishing only four mandatory safety standards between 1973 and 1977.

Commissioner of the CPSC David Pittle (Note 32) defended the passage of only four standards by citing Section 7 of the Consumer Product Safety Act which prohibited the CPSC from drafting standards without public and business input. He stated that expertise required to develop adequate product safety standards had not developed. Meanwhile voluntary standards already adopted by industry through the self-regulatory process had been used as safety standard guidelines.

Industrial voluntary standards accepted by the federal government are among the 20,000 trade standards on products ranging from household toasters to nuclear reactors. Some 400 non-governmental organizations have developed these standards. The non-governmental organizations consist of two types: the engineering societies such as the American Petroleum Institute and the Society of Automobile Engineers, and the private standard setting organizations such as Underwriter's Laboratory (Questions and Answers, Note 33).

The federal government's acceptance of industrial voluntary standards was part of the critical issue behind the 2,3-dibromopropyl phosphate (Tris) controversy. The Tris controversy arose following the CPSC's requirement that children's sleepware be able to pass the National Bureau of Standards flame retardancy test (Federal Register, Note 34). The test was performance based and not a descriptive standard which would have specified the type of treatment, design, or fabric manufacturers were to utilize (Case, Note 35). Chemical testing in 1975 demonstrated that Tris contains carcinogenic properties; however, Tris was not banned from use until 1977. Congressional hearings on the delay of the ban charged that the CPSC failed to investigate the standards and warn the public of the possible health hazard which may have resulted from the usage of Tris. Investigations into the CPSC's handling of the Tris are still in progress

(Consumer Product Safety Commission Regulations On Tris,  
Note 36).

Regulation preserves a free market. As business charged that safety standards and safety features limit the consumer's free choice of alternative products the CPSC reminds business that standards set by the Commission are performance standards. Performance standards dictate what the consumer can expect from a product without applying descriptive standards which would limit the manufacturer's use of technological resources in materials and design (Bureau of National Affairs, 1973).

Some exceptions to the non-use of descriptive standards, of course, could not be avoided. The regulations placed on baby cribs by the federal government are examples of descriptive standards. These regulations require specific designs and types of construction materials to be used in manufacturing baby cribs.

Governmental intervention in product regulations has been attributed with inhibiting the growth and development of a free competitive market. Another criticism of federal regulations has been the increased cost of safety features which have begun to force the low income consumer out of the marketplace. Response to both arguments have been based upon the rapid growth of the free market system. The number of consumer products and available product information has



increased. Some products such as ignition systems in automobiles, and product information such as chemical names of food additives, have become so complex that the individual consumer has been placed in an unequal bargaining position. Therefore regulation has been considered essential to preserve and enforce competition and ensure the consumer marketplace is operating in the public's interest and not for business interests along (Cohen & Stigler, 1971).

Cost/benefit and consumer behavior. The federal government does not deny that protective regulation increases the cost of consumer products but claims the cost of human life or disfigurement cannot be counted in dollars. David Pittle, Commissioner for Consumer Product Safety Commission, noted:

1. Since the 1974 baby crib standards, the death rate by strangulations decreased by 50% and injuries by 45%.
2. Following the passage of the Poison Prevention Packaging Act the number of children ingesting poisons decreased 40%.
3. Due to automotive safety features 28,000 lives have been saved.
4. Prior to 1971 35% of the burns suffered by children resulted from sleepware; that figure was zero in 1977 (Study on Federal Regulations, 1978, Note 25, p. 33).

The Office of Consumer Affairs agrees with business that consumer behavior often leads to the injuries. At the 1979 Mid-America Consumer Education Conference, Betsy Draper (Note 37), Deputy Director of the Office of Consumer Affairs,

said that the consumers were responsible for forty-eight percent of the reported product injuries from 1975 to 1978.

If consumer behavior causes an injury then the need for consumer protection becomes a function of the product's characteristics and the consumer's vulnerability. The court case of Bahlman vs. Hudson Motor Car Company (Note 38) resulted in a ruling which implies that in circumstances where the incident of consumer carelessness is abnormally high and where the manufacturer could without undue expense or inconvenience make a change in the design to avoid or minimize injuries the manufacturer should act accordingly (Dickerson, 1968).

The manufacturer, according to the ruling in the Indiana courts, is accountable for consumer behavior and product misuses if the following conditions exist.

1. The product carries a significant physical risk to a definable class of consumers.
2. The risk is one that the typical member of the class does not anticipate and guard against.
3. The risk threatens established consumer expectations with respect to a contemplated use and manner of the use of the product and a contemplated minimum level of performance.
4. The seller has reasons to know of the contemplated use and possibility where injuries side effects are involved, or has reasonable access to knowledge of the particular risk involved.

5. The seller knowingly participates in creating the contemplated use in otherwise generating the relevant consumer expectations, in the way attributed to him by the consumer (Dickerson, 1967, p. 309).

Consumer education through regulation. In an attempt to reduce regulations and make the consumer more knowledgeable about consumer products the federal government is imposing a new standard system known as Information Regulation. The Information Regulations permits a product which does not meet government standards to be distributed if accompanied by information disclosing the hazardous or problems associated with its use. This system makes more alternative products available and the consumer becomes responsible for preventing injury (Study on Federal Regulations, Note 25). The effectiveness of the Information Regulation is the educational level or clarity of the written message. If the information cannot be easily understood by most consumers then it will not provide adequate consumer protection.

Government consumer publications. Other federal educational efforts include the distribution of consumer publications. The Consumer Information Center in 1978 received requests from consumers for over 17 million free consumer publications. The consumers used the Consumer Information Catalog when making their orders. The 17 million figure

does not include the number of requests for publications which were purchased by consumers (Peterson, Note 39).

Newspapers, magazines, television, and radio networks have donated space and air time to inform the general public of available consumer publications. The use of national commercial television's public service announcements during a four week poison prevention campaign resulted in an average of 200 requests a day for CPSC poison prevention publications. CPSC's average number of daily calls for general information is 130 (Dix, Note 29).

Some businesses and industries have found the government's consumer publications non-objectional and are using the material in their sales plans. The Snapper Corporation has worked with the CPSC in the development of lawn mower information and distributes the material with their products (Dix, Note 29).

Mary Arsonff (Note 40) General Service Administration supervised a study concerning consumers' use of educational safety materials. Her study used a Consumer Information Catalog audience. The results indicated that if the material was related to toy safety the audience frequently requested and used the material. When safety appeared in other titles the audience response was considered low.

The Federal Office of Consumer Affairs distributes two major publications. The Consumer Federal Register provides

consumers with information about consumer legislation. It was written in "legalese" until 1977 when the wording was changed to layman's terminology for easier reading by consumers. The Consumer News, which has a yearly readership of over one million persons, has recently added a consumer legislative update section to its format.

#### Consumers' Opinions Concerning Consumer Protection

Negative attitudes toward regulation. Thorelli and Thorelli (1977) stated that some consumers are saying "provide me with more information and less regulation" (p. 263). Comments such as this can be supported by reviewing the saccharin controversy. Although saccharin has been considered a potential carcinogenic substance consumers demanded saccharin products remain available in the marketplace. The Food and Drug Administration yielded to consumers' demand. This action was in direct violation of the Delaney Amendment of 1953, PL85-929 (Note 17) and may become a major factor in regulating future potentially hazardous products (Pines & Glick, 1977).

Some consumers have also demonstrated a negative attitude toward consumer regulatory protection through other issues. There has been strong opposition to attempted cigarette bans although research has indicated they are a potentially hazardous product (Federal Register, Note 41). Consumers have strongly protested at federal consumer

product hearings against air bag installation as a safety feature in automobiles (Federal Register, Note 42). Consumers participating in CPSC hearings concerning the banning of unvented gas space heaters voiced opinions that the heaters should not be banned but sold with the printed information explaining the proper use of the product (Consumer Product Safety Committee News Release, 1978, Note 7).

The consumer's rejection of consumer laws and standards is further witnessed as the automobile owner realizes that automotive pollution controls not only clean the air, but reduce the automobile's performance. After realizing the cost/benefit trade many consumers have removed the controls in favor of better performance (Study on Federal Regulations, Note 25).

Requests for more regulation. Consumer advocates for more governmental regulation believe consumers are expecting and wanting regulatory protection. According to Noll (1977) the general public expects the government to protect them. Flashman and Retrum (1978) said that a 1977 survey indicated consumers believed they needed more help in protecting their consumer rights.

LaBarbera (1976) said that respondents to a 1976 study concerning the Federal Trade Commission's involvement in consumer protection strongly agreed that the government needs to exercise more responsibility for regulating

manufacturer's marketing activities. Furthermore, respondents believed that the government should set minimum product standards on all consumer products.

Although consumer groups believe consumer education is vitally important, they still state that knowledge is not enough. Even if consumers had access to all the information available it is impossible for them to fully utilize it (Green & Nader, 1973). One example is the recent Corning-Ware coffeepot incident in which 1,250 injuries occurred when handles separated from the user's coffeepots. The consumer could not be expected to know that over a period of four years the epoxy sealer used in the manufacturing process would dry and the coffeepot would become a potential hazard (Corning gets a handle on defects, 1979).

Use of consumer education. Consumers will benefit from their consumer rights only if they are informed about those rights and educated in consumer decision making. Often consumers are not aware of current consumer protection laws and therefore cannot benefit from them. Cunningham and Cunningham (1978) conducted a study to determine the knowledge of consumer's rights by lawyers and various income groups. They said the results indicated consumers and lawyers alike lacked knowledge of many existing consumer laws and misunderstood others. Cunningham and Cunningham further said

that there is a need for more consumer education and less government regulation.

Katz (1976) stated that consumers are becoming more aware of their consumer rights. He said that according to insurance institutions the number of product liability claims has increased from 35,000 in 1960 to some 60,000 in 1974.

Blum (1977) stated that often consumer problems are caused by the difference in the consumer's expectations of a product as it relates to health and safety and the product's intended function by business. He said that fewer consumer problems would occur if more complete and clear information was available to the consumer.

#### Summary

Consumer protection in the last century has developed in several forms. Business has attempted to provide consumers with protection through self-regulation, voluntary standards and educational programs. Industry and business have, for the most part, considered federal government involvement in product safety costly and unnecessary in a free market society. Both business and industry continue to insist that consumer behavior, not defective products, is the primary source of injuries and problems related to consumer products.



While criticism of the Federal Government's handling of consumer protection comes from both business and consumer advocates, the regulatory agencies claim that the reduction in consumer injuries and deaths proves the success of regulatory protective measures. The federal government agrees that consumer behavior is a contributing factor to consumer injury and has moved toward providing various methods of educating the consumer in the use of potentially hazardous products.

Consumer advocates are demanding more government regulatory protection. Business looks at the demand for potentially hazardous products such as saccharin and cigarettes and questions the amount of regulation consumers really want. Government meanwhile looks for alternative methods of keeping the general public informed and safe from injury.

Research results concerning the Federal Government's and industry's attitudes toward federal consumer protective regulations and educational efforts are available. Findings about the consumer's attitude toward consumer protection from potentially hazardous products have been contradictory and sometimes inconclusive. A study which directly investigates the consumer's attitude is needed to identify and clarify the consumer's position regarding such regulation and education.

Do consumers know what regulatory protection is now available? Are consumers aware of educational efforts by the federal government to inform them of possible risks? Should more or less regulation be provided? If less regulation is provided will consumers accept the responsibility for their own protection? The research reported in the following chapters has attempted to obtain answers to these questions directly from the consumer.

## CHAPTER III

### RESEARCH PROCEDURE

The overall purpose of this study was to investigate the consumer's attitude toward federal consumer protective regulation and federal consumer educational efforts related to consumer products which may be hazardous to the consumer's health and physical safety. Details of the research procedure are discussed in this chapter.

#### Sample Design

##### Selection of the Population

The United States is divided into ten geographical federal regions. The target population for this research was selected from Region VI which consists of Arkansas, Louisiana, Oklahoma, New Mexico, and Texas. These states represent a diverse range of approaches to handling consumer protection. Oklahoma represents a state with little consumer protection in either regulation or education. New Mexico is known for its strong regulatory protection of consumers and Texas is known for its educational approach. Louisiana and Arkansas are considered neutral in the amount of consumer protection provided on the state level (Note 43). It was further determined that the variance in the state consumer protection among these states might be

representative of consumer protection throughout the United States.

The target population was further narrowed to middle income tracts of major cities located within the five states composing Region VI. The middle income tracts were selected based on research by Wasson (1969) and Markin (1974) which states that economic income fails to clearly identify consumer behavior. Both authors state that behavior is related to social income; therefore, economic income may be used as a parameter.

#### Identification of Subjects

The sample population was selected by identifying three major cities from each of the five states. The cities were designated by using the Block Statistics, U.S. Bureau of Census for 1970 index. If only three cities were listed for each state, those cities were used. If more than three cities were listed, all those listed for that state were placed in a container and three were drawn for the study (Tuckman, 1972). The cities used for the study were: Little Rock, Fort Smith, and Pine Bluff, Arkansas; Lake Charles, Lafayette, and Shreveport, Louisiana; Las Cruces, Santa Fe, and Albuquerque, New Mexico; Tulsa, Lawton, and Oklahoma City, Oklahoma; and Fort Worth, Amarillo, and Lubbock, Texas.

The middle income tracts for each selected city were identified by using the 1970 Census of Populations and Housing. The city tracts sampled were those most nearly representing the city's 1970 median income (County and City Data Book, 1970). The 1977 County and City Data Book was checked for possible major shifts in income areas. Each selected tract was outlined on the block map and the streets within the tract were alphabetized. The streets were numbered and randomly selected using the random table of numbers (Tuckman, 1972). A list of 200 names per city was compiled by selection of every 10th address listed in Polk's City Directory 1978.

#### Questionnaire

Data were obtained through a questionnaire entitled Consumer Attitudes Toward Product Safety developed by the researcher. A copy of the questionnaire appears in Appendix A. The questionnaire was designed to collect data specifically related to protective regulations and educational efforts of the Consumer Product Safety Commission. The questionnaire contained the following five scales.

Scale One: Consumer's Attitude Toward CPSC Regulations. Items number 1 through number 6 and number 11 through number 16 were developed using a Likert-type form. Item 31 solicited the consumer's attitude toward the regulation of selected consumer items in a matrix form.

Scale Two: Consumer's Attitude Toward CPSC Educational Efforts. Items number 7 through number 10 and number 27 were developed using a Likert-type form. Item 30 solicited the consumer's attitude toward educational efforts directed at selected consumer products on a matrix type form.

Scale Three: Consumer Self-Protection: Items number 17 through number 29 were developed using a Likert-type form. Items number 32 and 33 solicited consumers' behavior in purchasing selected consumer products.

Scale Four: Consumer's Knowledge about CPSC Regulations. Items number 34 through number 38 were designed using a multiple choice form.

Scale Five: Consumer's Knowledge about CPSC Educational Efforts. Items number 39 through number 43 were designed using a multiple choice form.

An additional section of the questionnaire was designed to collect demographic data and background information. The demographic data pertained to household composition, state residency, theme of employment, educational level and injury experience.

The questionnaire was reviewed by a panel of judges for correctness of grammar, clarity of instruction, and effectiveness of response modes. The instrument was pilot tested using 150 households. Based on implications from individual

responses on the pilot test the questionnaire was revised in the following ways:

1. True and false questions were changed to multiple choice questions.
2. The format and quantity of items related to selected consumer products were reduced.
3. Questionnaire items related to specific types of educational materials were redesigned to investigate educational materials in general.

The revisions reduced the questionnaire from 115 items to 60 items. A second pretest was conducted using 25 households. The response from this second pretest indicated the revisions minimized the problems identified in the first test.

#### Administering the Instrument

Questionnaires were mailed to 3000 middle income households. An explanatory letter accompanied each questionnaire. The letter stated the purpose of the study and explained the procedure for completion and return of the questionnaire (see Appendix B).

The Human Research Committee, Texas Woman's University, waived the requirement to send a consent form with the questionnaire for the following reasons:

1. Respondents would return their complete questionnaire by mail and their anonymous return was equated to consent.

2. Questions in the instrument were not considered threatening, personal, intimate in nature.

3. Respondents may have hesitated to complete the questionnaire if they were asked to sign a consent form, particularly since the questionnaire was related to a federal government agency.

Accompanying the mailed questionnaire was a coupon from the CPSC upon which the respondent could use to request information regarding hazardous products. Respondents mailed the completed questionnaire to the CPSC, Dallas office. Personnel at the office opened the enveloped and removed any information which might identify the respondent. The questionnaires were then forwarded to the researcher.

Two weeks after the first mailing the names and addresses on the returned questionnaires which were marked undeliverable were removed from the mailing list. A follow-up mailing was sent to all the remaining names. The follow-up mailing contained the questionnaire, the letter of explanations and a note explaining the second mailing.

The return results are presented in Table 1.

#### Statistical Treatment of Data

Data from returned questionnaires were numbered and coded onto computer sheets. To ensure accuracy the responses



Table 1

## Questionnaire Return Results

State	Number in Mailing	Returned by Post Office	Deliverable	Responses	Usable Responses	Percentage of Deliverable Used
Arkansas	600	60	540	99	69	12.7
Louisiana	600	64	536	69	50	9.3
Oklahoma	600	72	538	64	38	7.1
New Mexico	600	89	511	113	78	15.3
Texas	600	117	483	65	52	10.8
Total	3,000	402	2,608	410	287	

were recorded by numbers and alphanumerics and the coding and data entry of each questionnaire was rechecked.

A total of four hundred ten completed questionnaires were returned. Questionnaires which were marked not deliverable were discounted from the computed return rate of sixteen percent (Babbie, 1973). One hundred twenty-three of the returned questionnaires were not valid for use in the data analysis due to incomplete or incorrect formulated responses. A total of twelve percent, 287, of the returned questionnaires were used in the data analysis.

Principle Axes Factor Analysis (Rummel, 1970; Kerlinger, 1973) was used to check the homogeneity of the questionnaire. Stepwise multiple regression (Dixon, 1967; Kerlinger, 1973; Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) was used to determine the relationships among domains in each hypothesis. A canonical correlation analysis also was utilized to reveal directional relationships between and within the variables in Hypothesis I and Hypothesis III (Tatsuoka, 1971; Harris, 1975; Cooley & Lohnes, 1971).

A stepwise multiple regression program (Dixon, 1967) was used to analyze the data. The multiple regression program computed a series of linear equations, each of which contained an added variable. The variable added was the one which made the greatest reduction in the error sum of squares. The stepwise regression program was utilized

specifying the inclusion of individual variables with F-ratio levels equal to or greater than 3.64 which is identified in Ferguson (1966) for the .05 level of confidence.

Variables listed in the multiple regression analysis as being independently significant are those that contribute to the reduction of the error sum of squares while not being highly correlated with another selected variable. All five scales and twenty-two temographic variables were used as input in the multiple regression analyses.

A canonical correlation analysis was performed on Scales I and III. The factor analysis results presented the use of canonical correlation on Scales II, IV, and V.

Canonical correlation analysis is a multivariate linear statistical technique which uses a set of two or more predictor variables and a set of two or more criterion variables and derives a linear combination between the variates of the two sets. Paired canonical variates, CANVAR, containing coefficients for each variable, are obtained. A profile is developed by using all the variable coefficients which are at least half as large as the largest coefficient in a canonical variate. The positive and negative signs are then used as weights to complete the profile (Harris, 1977). A high positive weight indicates the following: (a) a high score on knowledge, (b) a positive attitude toward

regulation, or (c) definite demographic characteristic influence in the data for this study. A high negative weight indicates a low score, a negative attitude, or non-demographic characteristic.

## CHAPTER IV

### ANALYSIS OF DATA

Data were collected by means of the instrument, Consumer Attitudes Toward Product Safety. The instrument was subjected to factor analysis. Data were analyzed using stepwise multiple regression analysis and only significant results were reported. Canonical correlation was also used to analyze the data. Demographic data were processed by frequency counts.

#### Analysis of Demographic Data

Questionnaires were distributed to consumers residing in federal Region VI. Four hundred ten questionnaires were returned and 287 were usable for analysis. Demographics related to the hypothesis included: (a) household composition, (b) theme of employment, (c) level of education, (d) state residency, and (e) injury experience.

Data related to household composition, level of education, and theme of employment were collapsed prior to analysis.

Household composition. Questionnaire items 45 through 48 were combined to construct household composition. Household composition data were collapsed according to four stages derived from life cycle groupings by Runyon (1977)

and Duvall (1967). If children were present and overlapped into more than one stage, the household was grouped according to the age of the youngest child. The classifications were as follows:

Beginning nest - Adult(s), under the age of 50, married and single without children.

Mid-nest - Adult(s) married and single with children less than 13 years of age.

Late nest - Adult(s) married and single with children between and including the ages of 13-17.

Empty nest - Adult(s) married and single with children 18 years of age or older or adult(s) married and single over the age of 50 without children.

The percentage distribution of the respondents by household composition is shown in Table 2. Mid-nest and empty nest households represent 68.3 percent of the respondents. Beginning nest and late nest households represent 31.7 percent of the households.

Table 2  
Percentage Distribution of Respondents  
by Household Composition

Household Composition	Number	Percentage
Beginning nest	50	17.4
Mid-nest	103	35.9
Late nest	41	14.3
Empty nest	93	32.4
Total	287	100.0

Educational level. Questionnaire item number 51 contained seven possible response choices for educational level. The educational level data were collapsed into four groupings which were: (a) high school or less, (b) associate and technical degrees received from two year post secondary institutions, (c) undergraduate degrees which were bachelor's degrees, and (d) graduate degrees which were master's and doctorate degrees. The percentage distribution of respondents by educational level are shown in Table 3. Respondents with an associate or technical degree or less represented 68.6 percent of the returns. Fewer than one percent of the respondents held a doctorate.

Table 3  
Percentage Distribution of Respondents  
by Educational Level

Educational Level	Number	Percentage
High school or less	101	35.2
Assoc or Tech	96	33.4
Undergraduate	58	20.2
Graduate	32	11.2
Total	287	100.0

Theme of employment. Theme of employment was used to identify the type of organization employing the respondent rather than the respondent's actual occupation. Questionnaire item number 52 contained twelve possible response choices for theme of employment. The theme of employment data were collapsed into three groupings. The groupings were: (a) business, which included retailing, banking and accounting, industry, law, and medicine, (b) government, which included government agencies and teachers, (c) other, which included housewife/househusband, retired, unemployed, self-employed, and other specified occupations. The distribution of respondents by theme of employment is shown in Table 4. Housewives and househusbands comprised 25.8 percent of the 145 respondents in the category Other.

Table 4  
Percentage Distribution of Respondents  
by Theme of Employment

Theme of Employment	Number	Percentage
Business	84	29.3
Government	58	20.2
Other	145	50.5
Total	287	100.0



State residency. The percentage distribution of respondents by state residency is shown in Table 5. Respondents from Arkansas and New Mexico represented 51.2 percent of the returns. The state with the fewest number of respondents was Oklahoma.

Table 5  
Percentage Distribution of Respondents  
by State Residency

State Residency	Number	Percentage
Arkansas	69	24.0
Louisiana	50	17.4
New Mexico	78	27.2
Oklahoma	39	13.8
Texas	52	18.1
Total	287	100.0

Injury experience. Questionnaire items 56 through 60 were used to determine injury experience. The percentage of respondents by the occurrence of injuries during the past five years is shown in Table 6. The return results indicated 10.5 percent of the respondents encountered an injury. Seriousness of injury could not be used as a variable in the analysis since there were only 2 serious injuries.

Table 6

Percentage Distribution of Respondents  
by Injury Experience

Injury Experience	Number	Percentage
Yes	30	10.5
No	257	89.5
Total	287	100.0

Factor Analysis of Scale Data

An empirical check on homogeneity of the questionnaire item subsets composing the various scales was done by factor analysis (Rummel, 1970). The technique, Principle Axes Factor Analysis (Nile et al., 1975), used squared multiple correlations of each variable with all other variables as community estimates.

Factored items in Scale I. Factoring was done with questionnaire items 1-6, 11-16D, and 31. Questionnaire items 6, 13, 16D, and 31 were deleted from the scale because they did not load significantly with the other items. The Scale I factor analysis generated five factors (see Table 7). The factors were: (1) Banning of products, (2) Consumer behavior, (3) Warning labels, (4) Safety standards, and (5) Authority.

Table 7

## Factor Analysis of Scale I--Consumers' Attitudes Toward Regulation

Items	Communality	Factors				
		1	2	3	4	5
		Banning	Behavior	Labels	Standards	Authority
Q1 Standards	0.240	0.007	0.063	0.141	0.109	0.463*
Q2 Seize products	0.497	0.354	0.010	0.099	0.195	0.511*
Q3 Sleepwear	0.357	0.072	0.058	0.089	0.574*	0.107
Q4 Selection	0.377	0.127	-0.021	0.110	0.579*	0.107
Q5 Increase Cost	0.768	0.080	0.118	0.045	0.776*	0.287
Q6 Increase Cost	0.256	0.270	0.005	0.052	0.284	0.232
Q11 Authority	0.499	0.116	0.064	0.155	-0.386	0.476*
Q12 Enforcement	0.221	0.049	-0.034	0.021	0.137	0.488*
Q13 Standards	0.242	0.056	0.061	0.049	0.287	0.166
Q14 Ban injury	0.781	0.807*	0.024	0.312	0.136	0.143
Q14 Ban cancer	0.776	0.808*	0.050	0.297	0.074	0.097
Q14 Ban death	0.798	0.829*	0.062	0.239	0.163	0.028
Q15 Label injury	0.724	0.343	0.048	0.733*	0.159	0.166
Q15 Label cancer	0.833	0.328	0.056	0.824*	0.079	0.174
Q15 Label death	0.802	0.284	0.049	0.782*	0.188	0.088
Q16 Instructions	0.746	0.048	0.854*	0.051	0.043	0.029
Q16 Unread Lab.	0.821	-0.011	0.901*	0.089	0.042	-0.010
Q16 Remove Feat.	0.492	0.049	0.701*	-0.014	0.044	0.030
Q16 Defect Prod.	0.-28	0.086	0.097	0.200	-0.016	0.096
Q31 Standards	0.215	0.183	-0.074	0.134	0.132	0.163

\*Items retained at F<sub>2</sub>3.84.

Factored items in Scale II. Factoring was done with questionnaire items 7-10, 27, and 30. Questionnaire items 7 and 27 were deleted from the scale because they did not load significantly with the other items. The Scale II factor analysis generated one factor (see Table 8). The factor was Educational attitude.

Table 8

Factor Analysis of Scale II--Consumers'  
Attitudes Toward Educational Efforts

Items	Communality	Factor
Q7 Biased material	0.057	0.235
Q8 Label decisions	0.318	0.555*
Q9 Free pamphlets	0.208	0.426*
Q10 Current info	0.655	0.713*
Q27 Read info	0.135	0.029
Q30 Info needed	0.338	0.436*

\*Items retained at  $F \geq 3.84$ .

Factored items in Scale III. Factoring was done with questionnaire items 17-26, 28-29, 32-33, and 41. Questionnaire items 17-20 and 41 were deleted from Scale III because they did not significantly load with the other items. The Scale III factor analysis generated four factors (see Table 9). The four factors were: (1) Self-action in

recalls, (2) Self-reported injuries, (3) Point of purchase information, (4) Self-informed labels.

Table 9  
Factor Analysis of Scale III--  
Consumer Self-Protection

Items	Com- munality	Factors			
		Action 1	Report 2	P of P 3	Inform 4
Q17 Price first	0.168	0.007	0.059	-0.004	0.069
Q18 Read mags	0.085	0.053	0.216	-0.096	0.147
Q19 Hearings	0.166	0.119	0.171	0.055	0.095
Q20 Remove feat	0.388	0.130	0.037	0.059	0.106
Q21 Ban product	0.449	0.587	0.138	0.163	0.171
Q22 \$20 ban	0.773	0.848*	0.193	0.058	0.884
Q23 \$20 recall	0.754	0.844*	0.099	0.028	0.124
Q24 Minor injury	0.682	0.205	0.757*	0.145	-0.067
Q25 Serious inj	0.345	0.112	0.432*	0.098	0.122
Q26 Letter	0.312	0.073	0.529*	0.049	0.154
Q28 Sales clerk	0.749	0.057	0.012	0.857*	0.082
Q29 Sales clerk	0.245	0.085	-0.001	0.479*	0.076
Q41 Use material	0.016	0.030	-0.010	0.017	0.108
Q32 Read labels	0.0442	0.106	0.154	0.038	0.635
Q33 Labels prev	0.364	0.082	0.198	0.159	0.518*
Q41 Material use	0.204	0.041	0.241	0.054	0.084

\*Items retained at  $F \geq 3.84$ .

Factored items in Scale IV. Factoring was done with questionnaire items 24-38. Questionnaire item 36 was deleted from Scale IV because it did not load significantly with the other items. The Scale IV factor analysis generated one factor (see Table 10). The factor was Knowledge of regulation.

Table 10

Factor Analysis of Scale V--Consumers'  
Knowledge of Regulation

Item	Communality	Factor
Q34 Product investigation	0.335	0.579*
Q35 Enforced laws	0.340	0.583*
Q36 Who enforces	0.098	-0.313
Q37 CPSC purpose	0.464	0.681*
Q38 CPSC authority	0.402	0.634*

\*Items retained at  $F \geq 3.84$

Factored items in Scale V. Factoring was done with questionnaire items 39-43. There were no questionnaire items deleted from Scale V. The Scale V factor analysis generated one factor (see Table 11). The factor was Knowledge of educational efforts.

Table 11

Factor Analysis of Scale V--Consumers'  
Knowledge of Educational Efforts

Item	Communality	Factor
Q39 Educational efforts	0.314	0.561*
Q40 Availability	0.523	0.723*
Q42 Used material	0.669	0.818*
Q43 Quality material	0.688	0.830*

\*Items retained at  $F \geq 3.84$ .

Each retained questionnaire item was assigned a value for each response choice. Matrix form questionnaire items 30-34 and multiple choice form questionnaire items 35-43 had sub-values which were computed into a new value for scoring. Examination of Appendix C will show value assignments. Scores were obtained for each scale by totaling the values of the questionnaire items as grouped in the factor analysis. The scale scores were then used for the stepwise multiple regression analysis and the canonical correlation analysis.

### Findings Related to the Hypotheses

#### Hypothesis I

There is no significant relationship between the consumer's attitude toward federal consumer protective regulation and the following:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's attitude toward federal consumer educational efforts
- (d) the consumer's willingness to accept responsibility for personal protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

The results of the stepwise multiple regression analysis identified two scales and two demographic variables as significant predictors for identifying the consumer's attitude toward federal protective regulation. Data in Table 12 shows the significant predictors in the order they emerged.

There was a positive relationship between the consumer's attitude toward federal consumer protective regulation and: (a) the consumer's attitude toward federal consumer educational efforts and (b) the consumer's willingness to accept responsibility for self protection.

There was a negative relationship between the consumer's attitude toward federal consumer protective regulation and: (a) the consumer who was in the empty nest household and (b) the consumer who was employed by business.



Table 12

Stepwise Multiple Regression--Scale I--Significant Variables Related to  
Consumers' Attitudes Toward Federal Protective Regulation

Predictor Variables	B	Beta	df	Multiple R	R Squared	R Squared Change	F Ratio
Attitude Ed	0.1402473D+01	0.500	1	0.607	0.368	0.368	91.369**
Self Protection	0.2571101D+00	0.200	2	0.635	0.403	0.034	14.683**
Empty Nest	-0.3646226D+01	-0.098	3	0.643	0.414	0.106	4.694*
Business	-0.2616115D+10	-0.098	4	0.648	0.420	0.006	4.122*

\* $p \leq 0.05$ .

\*\* $p \leq 0.01$ .

The consumer's attitude toward educational efforts accounted for 36.8 percent of the variance and the empty nest household accounted for 10.6 percent.

Canonical profiles. Data related to hypothesis I were subjected to a canonical correlation analysis. The multivariate procedure permitted analysis within and between the criterion variables of Scale I and the predictor variables: Scales II, III, IV and V and the demographic characteristics. The 0.05 level of significance was accepted for testing the hypothesis.

Computation of the canonical analysis resulted in two significant canonical correlations (see Table 13).

The first profile described by the first paired canonical variates suggested that the consumer who has a negative attitude toward federal educational efforts also has a negative attitude toward the banning of consumer products. The first canonical correlation accounts for 38.0 percent of the known variation in the specific combination of responses in Scale 1.

The second profile described by the second paired canonical variates suggested the consumer who had limited knowledge of federal educational efforts; who was not in the empty nest stage; who did not live in Louisiana or Texas; who had a high school education or less, had a

Table 13

Canonical Correlations of Consumers' Attitudes  
Toward Federal Regulations

	CANVAR 1	CANVAR 2
Eigenvalue	0.381	0.120
Correlation	0.617	0.346
Significance	0.000	0.037
Predictor Variables		
Attitude Ed	-0.740*	0.166
Self Protection	-0.220	-0.032
Know Reg	0.015	-0.221
Know Ed	-0.101	-0.368*
House Comp		
Beginning	-0.017	0.118
Mid-nest	-0.088	0.163
Late nest	0.312	0.128
Empty nest	0.157	-0.358*
Residency		
Arkansas	-0.197	0.128
Louisiana	-0.083	-0.652*
New Mexico	-0.093	-0.233
Oklahoma	0.029	-0.081
Texas	-0.441	-0.418*
Emp Theme		
Business	0.214	0.135
Government	0.113	0.076
Other	0.134	0.057
Education		
HS or less	0.034	0.570*
Assoc & Tech	0.080	-0.003
Undergraduate	0.021	0.001
Graduate	0.169	-0.129
Other		
Injury Exp	0.034	-0.042
Criterion Variables		
Banning	-0.418*	0.463*
Consumer Behavior	0.074	0.858*
Warning Labels	-0.002	-0.372
Safety Standards	-0.254	0.283
Authority	-0.610	-0.390

\* $p \leq 0.05$ .

positive attitude toward the banning of consumer products and believed that the consumer is not injured as a result of behavior. This second canonical correlation accounts for 12.0 percent of the total variation in the specified combination of responses in Scale I.

Hypothesis I acceptance and rejection. The results of the stepwise multiple regression and the canonical correlation indicated that the following domains of hypothesis I were rejected:

- (a) the consumer's knowledge of federal consumer educational efforts
- (b) the consumer's attitude toward federal consumer educational efforts
- (c) the consumer's willingness to accept responsibility for self protection
- (d) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) theme of employment
  - (3) state of residence
  - (4) level of education

The domains of hypothesis I which were accepted were:

- (a) the consumer's knowledge of federal consumer protective regulations
- (b) the consumer's personal demographic characteristic of injury experience

## Hypothesis II

There is no significant relationship between the consumer's attitude toward federal consumer educational efforts and the following:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's attitude toward federal consumer protective regulation
- (d) the consumer's willingness to accept responsibility for self protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

The results of the stepwise multiple regression analysis identified two scales and three demographic variables as significant predictors for identifying the consumer's attitude toward federal educational efforts. Data in Table 14 show the significant predictors in the order they emerged.

There was a positive relationship between the consumer's attitude toward federal consumer educational efforts and (a) the consumer's attitude toward federal consumer protective regulation, (b) the consumer's willingness to accept responsibility for self protection, and (c) the consumer who is employed by business and government organizations.

The consumer's attitude toward regulation accounted for 36.7 percent of the known variance.

Table 14

Stepwise Multiple Regression--Scale II--Significant Variables Related to  
Consumers' Attitudes Toward Federal Educational Efforts

Predictor Variables	B	Beta	df	Multiple R	R Squared	R Squared Change	F Ratio
Attitude Reg	0.163486D+00	0.457	1	0.607	0.367	0.367	84.168*
Self Protection	0.1276376D+00	0.279	2	0.656	0.429	0.061	32.048*
Undergraduate	-0.1655619D+01	-0.146	3	0.667	0.445	0.015	10.523*
Government	0.1467648D+01	0.129	4	0.673	0.453	0.008	7.583*
Business	0.1153935D+01	0.115	5	0.682	0.465	0.012	6.282*

\* $p \leq 0.01$ .

There was a negative relationship between the consumer's attitude toward federal consumer educational efforts and the consumer who had a bachelor's degree.

Hypothesis II acceptance and rejection. The results of the stepwise multiple regression analysis indicated that the following domains of hypothesis II were rejected:

- (a) the consumer's attitude toward federal consumer protective regulation
- (b) the consumer's willingness to accept responsibility for self protection
- (c) the consumer's personal demographic characteristics
  - (1) level of education
  - (2) theme of employment

The domains of hypothesis II which were accepted were:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) injury experience

### Hypothesis III

There is no significant relationship between the consumer's willingness to accept responsibility for self protection and the following:

- (a) the consumer's knowledge of federal consumer protective regulation

- (b) the consumer's knowledge of federal consumer educational efforts
- (c) the consumer's attitude toward federal consumer protective regulation
- (d) the consumer's attitude toward federal consumer educational efforts
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

The results of the stepwise multiple regression analysis identified two scales as significant predictors for identifying the consumer's willingness to accept responsibility for self protection. Data in Table 15 show the significant predictors in the order they emerged.

There was a positive relationship between the consumer's willingness to accept responsibility for self protection and: (a) the consumer's attitude toward federal consumer protective regulation and (b) the consumer's attitude toward federal consumer educational efforts.

The consumer's attitude toward educational efforts accounted for 25.2 percent of the variance.

Canonical profiles. Data related to hypothesis III were subjected to a canonical correlation analysis. The multivariate procedure permitted analysis within and between



Table 15

Stepwise Multiple Regression--Scale III--Significant  
Variables Related to Consumer Self Protection

Predictor Variables	B	Beta	df	Multiple R	R Squared	R Squared Change	F Ratio
Attitude Ed	0.7600317D+00	0.347	1	0.502	0.252	0.252	30.560*
Attitude Reg	0.1993245D+00	0.255	2	0.541	0.293	0.041	16.490*

68

\* $p \leq 0.01$ .

the criterion variables of Scale III and the predictor variables: Scales I, II, IV and V and the demographic characteristics. The 0.05 level of significance was accepted for testing the hypothesis.

Computation of the canonical analysis resulted in two significant canonical correlation profiles (see Table 16).

The first profile described by the first paired canonical variates suggested that the consumer who had a negative attitude toward federal educational efforts was also the consumer who did not read or use warning labels and package instructions on consumer products. The first canonical correlation accounted for 36.1 percent of the total variation in the specific combination of responses in Scale III.

The second profile described by the second paired canonical variates indicated that the consumer who had a negative attitude toward federal educational efforts was also the consumer who was knowledgeable about federal protective regulations; did not live in Louisiana, Oklahoma, New Mexico, or Texas; was not employed in a government related occupation and had more than two years of post secondary educational training. Furthermore, this consumer relied upon sales clerks and point of purchase information supplied by the manufacturer of consumer products for information regarding hazardous products. This second canonical

Table 16

Canonical Correlation of Consumer  
Self Protection

	CANVAR 1	CANVAR 2
Eigenvalue	0.361	0.118
Correlation	0.601	0.344
Significance	0.000	0.039
Predictor Variables		
Attitude Reg	-0.223	0.278
Attitude Ed	-0.726*	-0.529*
Know Reg	-0.343	0.398*
Know Ed	-0.000	0.226
House Comp		
Beginning	-0.024	-0.036
Mid-nest	-0.034	-0.036
Late nest	-0.152	-0.010
Empty nest	0.002	0.067
Residency		
Arkansas	0.044	-0.284
Louisiana	0.024	-0.596*
New Mexico	-0.021	-0.381*
Oklahoma	0.021	-0.698*
Texas	-0.073	-0.489*
Emp Theme		
Business	0.089	0.026
Government	0.099	-0.559*
Other	0.002	0.026
Education		
HS or less	-0.035	-0.512*
Assoc & Tech	-0.035	-0.444
Undergraduate	-0.025	-0.147
Graduate	-0.132	-0.274
Other		
Injury Exp	-0.152	-0.110
Criterion Variables		
Return recalls	-0.005	-0.244
Report injuries	-0.316	0.134
Point of purchase	-0.189	-0.943*
Labels	-0.816*	0.382

\* $p \leq 0.05$ .

correlation accounted for 11.8 percent of the total variation in the specific combination of responses in Scale III.

Hypothesis III acceptance and rejection. The results of the stepwise multiple regression and the canonical correlation indicated that the following domains of hypothesis III were rejected:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's attitude toward federal consumer protective regulations
- (c) the consumer's attitude toward federal consumer educational efforts
- (d) the consumer's personal demographic characteristics
  - (1) state of residence
  - (2) theme of employment
  - (3) level of education

The domains of hypothesis III which were accepted were:

- (a) the consumer's knowledge of federal consumer educational efforts
- (b) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) injury experience

#### Hypothesis IV

There is no significant relationship between the consumer's knowledge about federal consumer protective regulation and the following:

- (a) the consumer's knowledge of federal consumer educational efforts

- (b) the consumer's attitude toward federal consumer protective regulation
- (c) the consumer's attitude toward federal consumer educational efforts
- (d) the consumer's willingness to accept responsibility for self protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

The results of the stepwise multiple regression analysis identified one scale and four demographic variables as significant predictors for the consumer's knowledge of federal protective regulation. Data in Table 17 show the significant predictors in the order they emerged.

There was a positive relationship between the consumer's knowledge about federal consumer protective regulation and (a) the consumer's knowledge about federal consumer educational efforts and (b) the consumer who was in the mid-nest household.

The consumer's knowledge about educational efforts accounted for 27.4 percent of the variance.

There was a negative relationship between the consumer's knowledge about federal consumer protective regulation and the consumer who resides in New Mexico, Oklahoma and Texas.

Table 17

Stepwise Multiple Regression--Scale IV--Significant Variables Related  
to Consumers' Knowledge of Federal Educational Efforts

Predictor Variables	B	Beta	df	Multiple R	R Squared	R Squared Change	F Ratio
Know Ed	0.4845436D+00	0.504	1	0.523	0.274	0.274	96.677**
Mid-nest	0.1429025D+01	0.136	2	0.592	0.350	0.007	5.326*
New Mexico	-0.6946396D+01	-0.609	3	0.572	0.350	0.006	5.109*
Oklahoma	-0.6862013D+01	-0.448	4	0.593	0.352	0.002	4.851*
Texas	-0.6215717D+01	-0.472	5	0.601	0.362	0.009	4.029*

\* $p \leq 0.05$ .

\*\* $p \leq 0.01$ .

Hypothesis IV acceptance and rejection. The results of the stepwise multiple regression analysis indicated that the following domains of hypothesis IV were rejected:

- (a) the consumer's knowledge about federal consumer educational efforts
- (b) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence

The domains of hypothesis IV which were accepted were:

- (a) the consumer's attitude toward federal consumer protective regulation
- (b) the consumer's attitude toward federal consumer educational efforts
- (c) the consumer's willingness to accept responsibility for self protection
- (d) the consumer's personal demographic characteristics
  - (1) theme of employment
  - (2) level of education
  - (3) injury experience

#### Hypothesis V

There is no significant relationship between the consumer's knowledge about federal consumer educational efforts and the following:

- (a) the consumer's knowledge of federal consumer protective regulation
- (b) the consumer's attitude toward federal consumer protective regulation
- (c) the consumer's attitude toward federal consumer educational efforts

- (d) the consumer's willingness to accept responsibility for self protection
- (e) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) state of residence
  - (3) theme of employment
  - (4) level of education
  - (5) injury experience

The results of the stepwise multiple regression analysis identified two scales and two demographic variables as significant predictors for identifying the consumer's knowledge about federal educational efforts. Data in Table 18 show the significant predictors in the order they emerged.

There was a positive relationship between the consumer's knowledge about federal consumer educational efforts and: (a) the consumer's knowledge about federal consumer protective regulation, (b) the consumer's willingness to accept responsibility for self protection, and the consumer who had an associate or technical degree. The consumer's knowledge of regulation accounted for 27.4 percent of the variance.

There was a negative relationship between the consumer's knowledge about federal educational efforts and the consumer who lived in Arkansas.



Table 18

Stepwise Multiple Regression--Scale V--Significant Variables Related  
to Consumers' Knowledge of Federal Educational Efforts

Predictor Variables	B	Beta	df	Multiple R	R Squared	R Squared Change	F Ratio
Know Regulations	0.5441880D+00	0.523	1	0.523	0.274	0.274	107.550**
Assoc & Tech	0.1299609D+01	0.116	2	0.523	0.289	0.015	5.531*
Self Protection	0.6544605D+01	0.123	3	0.551	0.303	0.014	6.026*
Arkansas	-0.1330337D+01	-0.108	4	0.551	0.314	0.011	4.604*

\* $p \leq 0.05$ .

\*\* $p \leq 0.01$ .

Hypothesis V acceptance and rejection. The results of the stepwise multiple regression analysis indicated that the following domains of hypothesis V were rejected:

- (a) the consumer's knowledge about federal consumer protective regulation
- (b) the consumer's willingness to accept responsibility for self protection
- (c) the consumer's personal demographic characteristics
  - (1) state of residence
  - (2) level of education

The domains of hypothesis V which were accepted were:

- (a) the consumer's attitude toward federal consumer protective regulation
- (b) the consumer's attitude toward federal consumer educational efforts
- (c) the consumer's personal demographic characteristics
  - (1) household composition
  - (2) theme of employment
  - (3) injury experience

## CHAPTER V

### SUMMARY AND DISCUSSION

Prior to this study most research related to consumers' attitudes toward federal regulation of consumer products was conducted by business or government organizations. Consumers' opinions about federal educational efforts related to potentially hazardous products was not documented in the literature. Demographic characteristics which were considered to have influenced consumers' opinions were based upon assumptions rather than research findings.

This lack of demographic information made it difficult to identify some factors which influenced consumers' attitudes. Furthermore, the absence of empirical research regarding consumers' attitudes about federal educational efforts made it difficult to justify some federal consumer protection programs.

#### Summary

This study focused upon consumers' attitudes toward federal consumer protective regulation and educational efforts. Selected consumer demographics, knowledge about federal regulation and educational efforts and consumers' attitudes concerning self protection were the variables utilized to investigate consumers' attitudes toward regulation and education.

The research instrument, Consumer Attitudes Toward Product Safety, was a mailed questionnaire consisting of three parts. The first part comprised several Likert-type items designed to measure the consumer's attitude toward regulation and educational efforts. This part also measured the consumer's willingness to accept responsibility for self protection. The questions were stated to provide a score in two directions.

The second part of the questionnaire was designed to test the consumer's knowledge about federal consumer regulations and educational efforts. Multiple choice statements which would yield independent item scores were used for the test.

The final section was composed of questions designed to collect demographic data. The demographics were household composition, state of residence, theme of employment, level of education and injury experience.

The instrument was sent to a stratified random sample of 3000 Region VI consumers during the fall of 1979. The response rate, with two mailings, yielded 287 usable questionnaires.

Data analysis included a factor analysis of questionnaire items, stepwise multiple regression, and canonical correlation.

DiscussionConsumers' Attitudes

The investigation of the consumers' attitudes toward federal consumer protection regulation and educational efforts related to potentially hazardous products was analyzed using stepwise multiple regression. The results suggested that consumers' knowledge of federal regulations and educational efforts has no significant influence upon consumers' attitude.

When a canonical correlation consumer profile was designed the consumer's knowledge of educational efforts entered as a significant predictor for one consumer type. The empty nest household consumers who had a high school education and lived outside of Texas or Louisiana tended to have less knowledge about federal consumer regulation. However, this type of consumer had a positive attitude about the banning of consumer products which may have resulted in injury, cancer, or death. Furthermore, they did not believe consumer behavior caused product related injuries. Consumers matching this profile may have preferred federal regulation because they were not knowledgeable about consumer educational programs. The lack of knowledge may have caused them to depend on outside protection. Empty nest household consumers usually did not have post secondary

degrees which may have accounted for the educational variable being identified in the profile.

Another canonical consumer profile indicated that consumers who had a negative attitude toward the banning of products also had a negative attitude toward federal educational efforts. Perhaps these consumers had been affected by the banning of a product or had misunderstood the educational material related to the banning of products. This result requires further research.

The results from the stepwise multiple regression suggested that demographic characteristics related to theme of employment, household composition, and educational levels may be significant predictor factors of consumers' attitudes toward federal regulations and educational efforts. The review of literature revealed that while most business organizations had negative opinions regarding federal consumer protective regulations the businesses did approve of some CPSC educational material and programs. The results of this study indicated that the attitudes of consumers who are employed by business parallels the findings in literature.

The empty nest consumers in this study appeared to have a negative attitude toward overall federal regulation. Research conducted at the University of Pittsburgh found that older consumers tended to perceive fewer marketing practices as unfair. The older consumers in the Pittsburgh study also

believed that government regulation interfered with free enterprise (Note 44).

Consumers with a bachelor's degree exhibited a negative attitude toward federal educational efforts. Rationale for this result cannot be developed with the available data and requires additional investigation.

#### Consumer's Knowledge

The findings in this study indicated that the more Region VI consumers know about federal consumer protection, the more they know about federal consumer educational efforts. The reverse was shown also. A review of the Consumer Product Safety Commission educational materials has shown that as consumers read about the proper use of products they are exposed to the laws and the agencies responsible for safety of these products.

Demographic characteristics significantly related to consumers' knowledge of federal regulation and educational efforts included household composition, level of education, and state residency. The Region VI consumers appeared to be knowledgeable about federal regulations if children under the age of 13 were in the households. This finding parallels Stampfl's (1978) consumer life cycle chart which indicates that mid-nest household consumers have a broad knowledge of marketplace concepts. These consumers are more likely than other consumers to be purchasing children's

sleepwear and toys. Sleepwear and toys often carry warning labels. CPSC safety information on these products is more readily available than on other consumer products. Mid-nest consumers may be more aware of child safety caps on medicine, house-hold cleaning supplies and other poisonous products than other consumers.

Data results indicated that consumers with an associate or technical degree tended to be knowledgeable about federal educational efforts. These degrees are often related to vocational training. Vocational education frequently stresses the safety involved with the handling of various types of machinery, food products, and health care products. Therefore, consumers in vocational occupations may have had more exposure to federal product safety educational material.

State residency related significantly with consumers' knowledge about federal regulations and educational efforts. Both multiple regression and canonical correlation analysis results indicated that consumers in New Mexico, Oklahoma, and Texas were more knowledgeable about federal regulation and educational efforts than residents in Arkansas and Louisiana. The first three states have some common consumer education policies which may affect consumers' knowledge and attitudes. They have state policies which have established interdisciplinary consumer education programs in their



public schools. Louisiana and Arkansas do not have this type of consumer education program. The widely dispersed populations of New Mexico, Oklahoma, and Texas have also been considered a contributory factor to their apparent lack of interest in federal consumer protective regulation and educational efforts (Note 44).

#### Consumer Self Protection

Findings in this study indicated that the more consumers in Region VI were willing to accept responsibility for self protection, the more positive their attitude toward federal regulation and educational efforts. Although this result appears contradictory, political science research indicates such results are common. Most Americans lack knowledge of government policies and display little ability to use the information they do possess. Furthermore, Americans exhibit opinions about issues which are contradictory and inconsistent with their behavior (Erikson, 1976; Hopkins, 1974).

One consumer profile which resulted from canonical correlation analysis indicated that consumers who relied upon sales personnel and manufacturers for product safety information were college educated consumers who were Arkansas residents. They were knowledgeable about federal protective regulation; however, they had a negative attitude

toward federal educational efforts. Furthermore, consumers who matched this profile did not rely upon label warnings or label instructions when using a product.

The Arkansas consumers' negative attitude toward federal educational efforts may relate to the state's lack of public school consumer education program. If the Arkansas consumer is not satisfied with, or receptive to, federal educational efforts then the manufacturer and sales clerk would become a resource for product safety information. If the Arkansas consumer is not using warning labels, it may be another demonstration of a negative attitude toward consumer education.

#### Implications of the Study

When consumers' willingness to accept responsibility for self protection was used in the data analysis it always emerged in a positive relationship. This variable, then, appears to be a reliable predictor of consumers' attitudes toward, and knowledge of federal regulations and educational efforts.

The negative relationship between the consumers' attitudes toward federal consumer protective regulation and empty nest households and the positive relationship between consumers' knowledge and the mid-nest household consumers implies that the presence of children in the household increases concern about product safety.

The positive relationship between consumers' knowledge about federal regulation and education efforts implies that as consumers' knowledge about one variable increases it also increases about the other.

The positive relationship between consumers' knowledge about federal educational efforts and type of educational degree held implies that certain types of educational training can affect the level of consumers' knowledge.

#### Limitations of the Study

1. The low response rate hinders generalizations to a larger population. Generalizations are limited to urban middle class households residing in Federal Region VI.

2. Although the cover letter indicated anonymity would be provided some respondents may have been hesitant to return the questionnaire to a government office.

3. Results from the factor analysis of questionnaire items prevented canonical correlation analysis of hypotheses II, IV, and V.

4. Consumers' attitudes and knowledge levels are limited to regulations and educational efforts of the Consumer Product Safety Commission. Conclusions can be discussed only in regard to selected consumer products under the jurisdiction of the CPSC.

Findings in this study are based upon 287 questionnaires remaining from a screening of 410 questionnaires. Had the other 123 questionnaires been used the data analysis may have produced different results.

#### Suggestions for Further Research

The investigation of consumers' attitudes toward federal consumer protective regulations and educational efforts related to potentially hazardous products has identified several specific areas for further research. It appears that consumers do vary their knowledge about federal regulation and educational efforts according to the state in which they reside. A closer look at state consumer policies and educational programs is needed.

The seemingly conflicting positive relationship between consumers' willingness to accept responsibility for self protection and their attitude toward federal regulations raises additional research questions. Further investigation of consumers' perceptions of their self protection role and governments regulatory functions are needed.

Lack of injury experience reported by the respondents left this variable virtually unexamined. Additional data are needed to investigate the relationship between such injury variables as seriousness of injury, incidence of injuries, and consumers' attitude toward federal regulation.

This study was delimited to one federal regulatory agency, the Consumer Product Safety Commission. Data related to other agencies, or to no specific agency, would be useful in further study of consumers' knowledge and attitudes.

This study focused upon middle income families in a five state area. Data from more select homogenous groups such as the elderly, single adults, and adolescents could further define consumers' attitudes and knowledge levels.

This research project investigated consumer's attitudes toward federal regulation and educational efforts pertaining to selected potentially hazardous products. Consumers' attitudes toward federal regulations in other areas such as credit, advertising, food labeling, and environmental safety could be investigated.

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## APPENDIX A

Department of Home Economics and Consumer Sciences  
Texas Woman's University  
and  
Consumer Product Safety Commission

Indicate in the appropriate square to the right what you think about the statement below.

1. Present consumer product safety standards have helped protect me and my family from injury. . . . .
2. The Consumer Product Safety Commission should have the right to seize potentially hazardous products. . . . .
3. The laws relating to children's flammable sleepwear have made the product too expensive . . . . .
4. Product safety standards reduce the selection of available products. . . . .
5. Safety standards increase the cost of products more than they help. . . . .
6. Even if a safety feature increases the cost of a product, it should be added to the product . . . . .
7. Government publications are less biased when reporting on consumer products than consumer magazines . . . . .
8. Warning labels have helped me make decisions about purchasing some products . . . . .
9. Government pamphlets about consumer products should be free . . . . .
10. Government publications about consumer products have kept me up-dated on purchases I have made . . . . .
11. The Consumer Product Safety Commission has too much authority . . . . .
12. The Consumer Product Safety Commission has been effective in enforcing product safety laws . . . . .
13. Manufacturers are responsible enough to set their own safety standards . . . . .
14. A product should be banned if there is any indication that it may cause:  
    Injury. . . . .  
    Cancer. . . . .  
    Death . . . . .
15. A product should be permitted to remain on the market with a warning label even if the product causes:  
    Injury. . . . .  
    Cancer. . . . .  
    Death . . . . .
16. Consumers are usually injured because:  
    they do not read product instructions . . . . .  
    they do not read warning labels . . . . .  
    they remove safety features . . . . .  
    the product is defective. . . . .

[illegible]

## II. WHAT ACTION WOULD YOU TAKE?

Indicate in the appropriate square to the right that which best expresses what action you would take in each situation.

17. When purchasing a product, I would consider the price before reading the labels . . . . .
18. Before purchasing a product I read consumer magazine reviews . . . . .
19. If I disagreed on the CPSC proposed action about a product and a product hearing was in my area I would attend. . . . .
20. If I had a product with a safety feature I did not like I would remove the feature . . . . .
21. If a product is banned or recalled, regardless of price, and if the product is performing satisfactory would you return it? . . . . .
22. If a product costing \$20 or less was banned would you return it? . . . . .
23. If a product costing \$20 or less was recalled would you return it? . . . . .
24. If I suffered a minor injury I would report it to the CPSC. . . . .
25. If I suffered a serious injury I would report it to the CPSC. . . . .
26. I write letters to manufacturers about products with which I have been injured . . . . .
27. Safety information is available at the store counter when a product is purchased . . . . .
28. Sales people inform customers about hazardous products. . . . .
29. Sales people are knowledgeable about products they sell . . . . .

Always	Sometimes	Rarely	Never	Not Sure

Check as many squares to the right as you believe applies to the statements below.

30. More educational information is needed for. . . . .
31. There is a need for more safety standards on . . . . .
32. If shopping, I would read labels on . . . . .
33. Warning labels would prevent me from purchasing. . . . .
34. The products which the CPSC investigates are. . . . .

Baby furniture	Children's toys	Power tools	Children's sleepwear	Electrical appliances	Bicycles, skateboards, sleds	Adult sports equipment	Household construction materials	Flammable products	Guns

## III. WHAT DO YOU KNOW ABOUT THE CONSUMER PRODUCT SAFETY COMMISSION (CPSC)?

Each of the following statements may have more than one answer. Check all answers which apply.

35. The CPSC is responsible for enforcing the:

<input type="checkbox"/> Flammable Fabrics Act	<input type="checkbox"/> Poison Prevention Packaging Act
<input type="checkbox"/> Federal Hazardous Substance Act	<input type="checkbox"/> Refrigerator Safety Act
<input type="checkbox"/> Gun Control Act	<input type="checkbox"/> Auto Emissions Control Act



36. People who enforce the CPSC regulations are:
- ☐ city police                      ☐ commission state agencies  
☐ CPSC deputies                      ☐ federal investigators
37. The purpose of CPSC is:
- ☐ To establish mandatory product laws  
☐ To establish an injury information clearinghouse  
☐ To ban hazardous products
38. The CPSC has the authority to:
- ☐ order recalls of hazardous products  
☐ require warning labels on products  
☐ seize hazardous products  
☐ arrest a retailer selling hazardous products
39. The CPSC has provided consumers with:
- ☐ written and audio announcements about specific unsafe products  
☐ speakers for group meetings  
☐ printed teaching materials about products  
☐ films for meetings and group discussions  
☐ product safety information written for children's reading levels  
☐ bilingual information  
☐ a consumer hot line
40. Check any of the following where you have seen CPSC information:
- ☐ the library                      ☐ consumer information bulletin  
☐ the post office                      ☐ CPSC exhibit booth  
☐ a public school                      ☐ consumer alert bulletins  
☐ a regional federal office                      ☐ TV/radio announcements  
☐ organizational newsletters                      ☐ consumer resource guides
41. Have you used Consumer product Safety Commission educational materials?  
☐ yes                      ☐ no
42. If yes, how did you use the educational material?  
 (Check all which apply)
- ☐ To help select a product  
☐ Learn how to use a product  
☐ To maintain a product  
☐ Learn how to dispose a product  
☐ Learn how to store a product  
☐ Make a display  
☐ Discuss a product
43. Did you find the educational material
- ☐ Easy to read  
☐ Readily available  
☐ Providing adequate information  
☐ Bias in information  
☐ Valuable enough to encourage ordering other CPSC material

## IV. PLEASE CHECK THE FOLLOWING AS THEY APPLY TO YOU

44. SEX  
     \_\_\_ Male      \_\_\_ Female
45. AGE RANGE  
     \_\_\_ Under 20      \_\_\_ 50-59  
     \_\_\_ 20-29      \_\_\_ 60-69  
     \_\_\_ 30-39      \_\_\_ 70 or over  
     \_\_\_ 40-49
46. MARITAL STATUS  
     \_\_\_ Single  
     \_\_\_ Married  
     \_\_\_ Widowed  
     \_\_\_ Divorced
47. NUMBER OF CHILDREN  
     \_\_\_ None      \_\_\_ 5-6  
     \_\_\_ 1-2      \_\_\_ 7 or more  
     \_\_\_ 3-4
48. NUMBER OF CHILDREN IN EACH AGE GROUP  
     \_\_\_ Less than 1 year old  
     \_\_\_ 1-5  
     \_\_\_ 6-12  
     \_\_\_ 13-17  
     \_\_\_ 18 or over
49. STATE IN WHICH YOU CURRENTLY RESIDE  
     \_\_\_ Arkansas  
     \_\_\_ Louisiana  
     \_\_\_ Oklahoma  
     \_\_\_ New Mexico  
     \_\_\_ Texas  
     \_\_\_ Other, specify \_\_\_\_\_
50. HAVE YOU LIVED IN ANOTHER STATE OTHER THAN ONE ABOVE?  
     \_\_\_ Yes      \_\_\_ No
51. LEVEL OF EDUCATION  
     \_\_\_ Did not finish high school  
     \_\_\_ High school  
     \_\_\_ Two year college  
     \_\_\_ Technical training  
     \_\_\_ Bachelor's degree  
     \_\_\_ Master's degree  
     \_\_\_ Doctorate
52. TYPE OF EMPLOYMENT  
     \_\_\_ Retailing  
     \_\_\_ Banking, accounting  
     \_\_\_ Industry  
     \_\_\_ Law  
     \_\_\_ Medicine  
     \_\_\_ Government agency  
     \_\_\_ Teacher  
     \_\_\_ Self-employed  
     \_\_\_ Housewife/husband  
     \_\_\_ Retired  
     \_\_\_ Unemployed  
     \_\_\_ Other, specify \_\_\_\_\_
53. APPROXIMATE YEARLY INCOME  
     \_\_\_ Under 4,999  
     \_\_\_ 5,000 to 9,999  
     \_\_\_ 10,000 to 19,999  
     \_\_\_ 20,000 to 29,999  
     \_\_\_ 30,000 to 39,999  
     \_\_\_ 40,000 to 49,999  
     \_\_\_ 50,000 to 59,999  
     \_\_\_ 60,000 to 69,999  
     \_\_\_ 70,000 or over
54. RATE YOUR FIRST AID SKILLS  
     \_\_\_ excellent  
     \_\_\_ adequate  
     \_\_\_ fair  
     \_\_\_ poor
55. RATE YOUR HEALTH INSURANCE  
     \_\_\_ excellent  
     \_\_\_ adequate  
     \_\_\_ fair  
     \_\_\_ poor
56. HAS A MEMBER OF YOUR FAMILY BEEN INJURED IN THE LAST FIVE YEARS BY A CONSUMER PRODUCT?  
     \_\_\_ Yes      \_\_\_ No
- IF YES, COMPLETE THE QUESTIONS BELOW.  
 IF NO, PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED ENVELOPE.
- CHECK THE FOLLOWING WHICH APPLY TO ANY INJURY BY A CONSUMER PRODUCT WHICH A FAMILY MEMBER MAY HAVE SUFFERED IN THE LAST FIVE YEARS.

57. WAS THE INJURED PERSON:  
     \_\_\_ a child  
     \_\_\_ taken to the doctor's office  
     \_\_\_ taken to the emergency room  
     \_\_\_ admitted to the hospital

58. DID THE INJURY RESULT IN:  
     \_\_\_ death  
     \_\_\_ loss of sight  
     \_\_\_ loss of hearing  
     \_\_\_ loss of fingers/toes  
     \_\_\_ loss of limb(s)  
     \_\_\_ visible scar

59. DID YOU REPORT THE INJURY TO:  
     \_\_\_ the retail store  
     \_\_\_ the manufacturer  
     \_\_\_ the CPSC  
     \_\_\_ a consumer agency

60. SINCE THE INJURY HAVE YOU USED:  
     \_\_\_ the product again  
     \_\_\_ a similar product

WHEN YOU HAVE COMPLETED THE QUESTIONNAIRE PLEASE RETURN IT IN THE ENCLOSED ENVELOPE. YOUR HELP HAS BEEN GREATLY APPRECIATED.

## APPENDIX B

TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF NUTRITION, TEXTILES,  
AND HUMAN DEVELOPMENT

Box 23975, TWU STATION  
PHONE (817) 382-8821

September 19, 1979

Dear Consumer:

Current consumer problems have raised questions about consumer's need for federal protection from potentially hazardous products. Will you tell us on the enclosed questionnaire how you feel about federal consumer protection?

A free consumer information leaflet is enclosed. If you would like additional free material, return the attached coupon with the questionnaire in the enclosed stamped envelope.

By completing the enclosed questionnaire you will give your consent for the information to be used for research purposes. Your response will remain anonymous.

Thank you for your time and help in completing this project.

Respectfully,



Donna R. Iams  
Consumer Sciences  
Texas Woman's University



Dr. June Impson  
Assistant Professor  
Home Economics Education  
and Consumer Sciences  
Texas Woman's University

Encl.

## APPENDIX C

# CONSUMER ATTITUDES TOWARD PRODUCT SAFETY

Department of Home Economics and Consumer Sciences  
Texas Woman's University  
and  
Consumer Product Safety Commission

## I. WHAT IS YOUR OPINION?

Indicate in the appropriate square to the right what you think about the statement below.

	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
1. Present consumer product safety standards have helped protect me and my family from injury. . . . .	5	4	2	1	3
2. The Consumer Product Safety Commission should have the right to seize potentially hazardous products. . . . .	5	4	2	1	3
3. The laws relating to children's flammable sleepwear have made the product too expensive . . . . .	1	2	4	5	3
4. Product safety standards reduce the selection of available products. . . . .	1	2	4	5	3
5. Safety standards increase the cost of products more than they help. . . . .	1	2	4	5	3
6. Even if a safety feature increases the cost of a product, it should be added to the product . . . . .	5	4	2	1	3
7. Government publications are less biased when reporting on consumer products than consumer magazines . . . . .	5	4	2	1	3
8. Warning labels have helped me make decisions about purchasing some products . . . . .	5	4	2	1	3
9. Government pamphlets about consumer products should be free . . . . .	5	4	2	1	3
10. Government publications about consumer products have kept me up-dated on purchases I have made . . . . .	5	4	2	1	3
11. The Consumer Product Safety Commission has too much authority . . . . .	1	2	4	5	3
12. The Consumer Product Safety Commission has been effective in enforcing product safety laws . . . . .	5	4	2	1	3
13. Manufacturers are responsible enough to set their own safety standards . . . . .	1	2	4	5	3
14. A product should be banned if there is any indication that it may cause:	5	4	2	1	3
Injury. . . . .					
Cancer. . . . .	5	4	2	1	3
Death . . . . .	5	4	2	1	3
15. A product should be permitted to remain on the market with a warning label even if the product causes:					
Injury. . . . .	1	2	4	5	3
Cancer. . . . .	1	2	4	5	3
Death . . . . .	1	2	4	5	3
16. Consumers are usually injured because:					
they do not read product instructions . . . . .	1	2	4	5	3
they do not read warning labels . . . . .	1	2	4	5	3
they remove safety features . . . . .	1	2	4	5	3
the product is defective. . . . .	5	4	2	1	3

## II. WHAT ACTION WOULD YOU TAKE?

Indicate in the appropriate square to the right that which best expresses what action you would take in each situation.

	Always	Sometimes	Rarely	Never	Not Sure
17. When purchasing a product, I would consider the price before reading the labels . . . . .	1	2	4	5	3
18. Before purchasing a product I read consumer magazine reviews . . . . .	5	4	2	1	3
19. If I disagreed on the CPSC proposed action about a product and a product hearing was in my area I would attend. . . . .	5	4	2	1	3
20. If I had a product with a safety feature I did not like I would remove the feature . . . . .	1	2	4	5	3
21. If a product is banned or recalled, regardless of price, and if the product is performing satisfactory would you return it? . . . . .	5	4	2	1	3
22. If a product costing \$20 or less was banned would you return it? . . . . .	5	4	2	1	3
23. If a product costing \$20 or less was recalled would you return it? . . . . .	5	4	2	1	3
24. If I suffered a minor injury I would report it to the CPSC. . . . .	5	4	2	1	3
25. If I suffered a serious injury I would report it to the CPSC. . . . .	5	4	2	1	3
26. I write letters to manufacturers about products with which I have been injured . . . . .	5	4	2	1	3
27. Safety information is available at the store counter when a product is purchased . . . . .	1	2	4	5	3
28. Sales people inform customers about hazardous products. . . . .	1	2	4	5	3
29. Sales people are knowledgeable about products they sell . . . . .	1	2	4	5	3

Check as many squares to the right as you believe applies to the statements below.

	Baby furniture	Children's toys	Power tools	Children's sleepwear	Electrical appliances	Bicycles, skateboards, sleds	Adult sports equipment	Household construction materials	Flammable products	Guns
30. More educational information is needed for. . . . .	1	1	1	1	1	1	1	1	1	0
31. There is a need for more safety standards on . . . . .	1	1	1	1	1	1	1	1	1	0
32. If shopping, I would read labels on . . . . .	1	1	1	1	1	1	1	1	1	0
33. Warning labels would prevent me from purchasing. . . . .	1	1	1	1	1	1	1	1	1	0
34. The products which the CPSC investigates are. . . . .	1	1	1	1	1	1	1	1	1	0

## III. WHAT DO YOU KNOW ABOUT THE CONSUMER PRODUCT SAFETY COMMISSION (CPSC)?

Each of the following statements may have more than one answer. Check all answers which apply.

35. The CPSC is responsible for enforcing the:

1 Flammable Fabrics Act

1 Poison Prevention Packaging Act

1 Federal Hazardous Substance Act

1 Refrigerator Safety Act

0 Gun Control Act

0 Auto Emissions Control Act

36. People who enforce the CPSC regulations are:  
       0 city police                      0 commission state agencies  
       0 CPSC deputies                  1 federal investigators
37. The purpose of CPSC is:  
       1 To establish mandatory product laws  
       1 To establish an injury information clearinghouse  
       1 To ban hazardous products
38. The CPSC has the authority to:  
       1 order recalls of hazardous products  
       1 require warning labels on products  
       1 seize hazardous products  
       0 arrest a retailer selling hazardous products
39. The CPSC has provided consumers with:  
       1 written and audio announcements about specific unsafe products  
       1 speakers for group meetings  
       1 printed teaching materials about products  
       1 films for meetings and group discussions  
       1 product safety information written for children's reading levels  
       1 bilingual information  
       1 a consumer hot line
40. Check any of the following where you have seen CPSC information:  
       1 the library                      1 consumer information bulletin  
       0 the post office                  1 CPSC exhibit booth  
       0 a public school                  1 consumer alert bulletins  
       1 a regional federal office       1 TV/radio announcements  
       0 organizational newsletters     1 consumer resource guides
41. Have you used Consumer product Safety Commission educational materials?  
       1 yes                                0 no
42. If yes, how did you use the educational material?  
       (Check all which apply)  
       1 To help select a product  
       1 Learn how to use a product  
       1 To maintain a product  
       1 Learn how to dispose a product  
       1 Learn how to store a product  
       1 Make a display  
       1 Discuss a product
43. Did you find the educational material  
       1 Easy to read  
       1 Readily available  
       1 Providing adequate information  
       0 Bias in information  
       1 Valuable enough to encourage ordering other CPSC material



## IV. PLEASE CHECK THE FOLLOWING AS THEY APPLY TO YOU

44. SEX

☐ Male      ☐ Female

45. AGE RANGE

☐ Under 20      ☐ 50-59  
☐ 20-29      ☐ 60-69  
☐ 30-39      ☐ 70 or over  
☐ 40-49

46. MARITAL STATUS

☐ Single  
☐ Married  
☐ Widowed  
☐ Divorced

47. NUMBER OF CHILDREN

☐ None      ☐ 5-6  
☐ 1-2      ☐ 7 or more  
☐ 3-4

48. NUMBER OF CHILDREN IN EACH AGE GROUP

☐ Less than 1 year old  
☐ 1-5  
☐ 6-12  
☐ 13-17  
☐ 18 or over

49. STATE IN WHICH YOU CURRENTLY RESIDE

☐ Arkansas  
☐ Louisiana  
☐ Oklahoma  
☐ New Mexico  
☐ Texas  
☐ Other, specify \_\_\_\_\_

50. HAVE YOU LIVED IN ANOTHER STATE OTHER THAN ONE ABOVE?

☐ Yes      ☐ No

51. LEVEL OF EDUCATION

☐ Did not finish high school  
☐ High school  
☐ Two year college  
☐ Technical training  
☐ Bachelor's degree  
☐ Master's degree  
☐ Doctorate

52. TYPE OF EMPLOYMENT

☐ Retailing  
☐ Banking, accounting  
☐ Industry  
☐ Law  
☐ Medicine  
☐ Government agency  
☐ Teacher  
☐ Self-employed  
☐ Housewife/husband  
☐ Retired  
☐ Unemployed  
☐ Other, specify \_\_\_\_\_

53. APPROXIMATE YEARLY INCOME

☐ Under 4,999  
☐ 5,000 to 9,999  
☐ 10,000 to 19,999  
☐ 20,000 to 29,999  
☐ 30,000 to 39,999  
☐ 40,000 to 49,999  
☐ 50,000 to 59,999  
☐ 60,000 to 69,999  
☐ 70,000 or over

54. RATE YOUR FIRST AID SKILLS

☐ excellent  
☐ adequate  
☐ fair  
☐ poor

55. RATE YOUR HEALTH INSURANCE

☐ excellent  
☐ adequate  
☐ fair  
☐ poor

56. HAS A MEMBER OF YOUR FAMILY BEEN INJURED IN THE LAST FIVE YEARS BY A CONSUMER PRODUCT?

☐ Yes      ☐ No

IF YES, COMPLETE THE QUESTIONS BELOW.  
 IF NO, PLEASE RETURN THE QUESTIONNAIRE IN THE ENCLOSED ENVELOPE.

CHECK THE FOLLOWING WHICH APPLY TO ANY INJURY BY A CONSUMER PRODUCT WHICH A FAMILY MEMBER MAY HAVE SUFFERED IN THE LAST FIVE YEARS.

57. WAS THE INJURED PERSON:

☐ a child  
☐ taken to the doctor's office  
☐ taken to the emergency room  
☐ admitted to the hospital

58. DID THE INJURY RESULT IN:

☐ death  
☐ loss of sight  
☐ loss of hearing  
☐ loss of fingers/toes  
☐ loss of limb(s)  
☐ visible scar

59. DID YOU REPORT THE INJURY TO:

☐ the retail store  
☐ the manufacturer  
☐ the CPSC  
☐ a consumer agency

60. SINCE THE INJURY HAVE YOU USED:

☐ the product again  
☐ a similar product

WHEN YOU HAVE COMPLETED THE QUESTIONNAIRE PLEASE RETURN IT IN THE ENCLOSED ENVELOPE. YOUR HELP HAS BEEN GREATLY APPRECIATED.