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# CONSUMER ACCEPTANCE OF RSV FEATURES
## Volume I: Executive Summary



Naomi H. Henderson
Kristin N. Curran

The Prism Corporation
4545 42nd St., N.W.
Washington, D.C. 20016

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15. Supplementary Notes

16. Abstract

This report covers findings from a series of 23 focus panels among consumers in six U.S. cities, researching attitudes and opinions about safety features of the Minicars' Research Safety Vehicle.

Volume I - Executive Summary

Volume II - Comprehensive Report on 23 Focus Groups to Investigate Consumer Acceptance of Research Safety Vehicle Features.

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# METRIC CONVERSION FACTORS

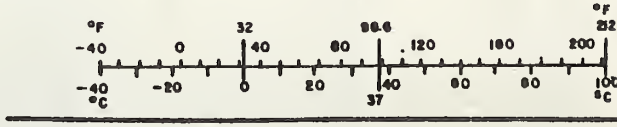
## Approximate Conversions to Metric Measures

| Symbol | When You Know | Multiply by | To Find | Symbol |
|---|---|---|---|---|
| | **LENGTH** | | | |
| in | inches | *2.5 | centimeters | cm |
| ft | feet | 30 | centimeters | cm |
| yd | yards | 0.9 | meters | m |
| mi | miles | 1.8 | kilometers | km |
| | **AREA** | | | |
| $in^2$ | square inches | 6.5 | square centimeters | $cm^2$ |
| $ft^2$ | square feet | 0.09 | square meters | $m^2$ |
| $yd^2$ | square yards | 0.8 | square meters | $m^2$ |
| $mi^2$ | square miles | 2.6 | square kilometers | $km^2$ |
| | acres | 0.4 | hectares | ha |
| | **MASS (weight)** | | | |
| oz | ounces | 28 | grams | g |
| lb | pounds | 0.45 | kilograms | kg |
| | short tons (2000 lb) | 0.9 | tonnes | t |
| | **VOLUME** | | | |
| tsp | teaspoons | 5 | milliliters | ml |
| Tbsp | tablespoons | 15 | milliliters | ml |
| fl oz | fluid ounces | 30 | milliliters | ml |
| c | cups | 0.24 | liters | l |
| pt | pints | 0.47 | liters | l |
| qt | quarts | 0.95 | liters | l |
| gal | gallons | 3.8 | liters | l |
| $ft^3$ | cubic feet | 0.03 | cubic meters | $m^3$ |
| $yd^3$ | cubic yards | 0.76 | cubic meters | $m^3$ |
| | **TEMPERATURE (exact)** | | | |
| °F | Fahrenheit temperature | 5/9 (after subtracting 32) | Celsius temperature | °C |

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.


## Approximate Conversions from Metric Measures

| Symbol | When You Know | Multiply by | To Find | Symbol |
|---|---|---|---|---|
| | **LENGTH** | | | |
| mm | millimeters | 0.04 | inches | in |
| cm | centimeters | 0.4 | inches | in |
| m | meters | 3.3 | feet | ft |
| m | meters | 1.1 | yards | yd |
| km | kilometers | 0.6 | miles | mi |
| | **AREA** | | | |
| $cm^2$ | square centimeters | 0.16 | square inches | $in^2$ |
| $m^2$ | square meters | 1.2 | square yards | $yd^2$ |
| $km^2$ | square kilometers | 0.4 | square miles | $mi^2$ |
| ha | hectares (10,000 $m^2$) | 2.5 | acres | |
| | **MASS (weight)** | | | |
| g | grams | 0.035 | ounces | oz |
| kg | kilograms | 2.2 | pounds | lb |
| t | tonnes (1000 kg) | 1.1 | short tons | |
| | **VOLUME** | | | |
| ml | milliliters | 0.03 | fluid ounces | fl oz |
| l | liters | 2.1 | pints | pt |
| l | liters | 1.06 | quarts | qt |
| l | liters | 0.26 | gallons | gal |
| $m^3$ | cubic meters | 35 | cubic feet | $ft^3$ |
| $m^3$ | cubic meters | 1.3 | cubic yards | $yd^3$ |
| | **TEMPERATURE (exact)** | | | |
| °C | Celsius temperature | 9/5 (then add 32) | Fahrenheit temperature | °F |



During April, 1980, The Prism Corporation conducted a study for the National Highway Traffic Safety Administration (NHTSA) which investigated consumer attitudes towards the Minicars Research Safety Vehicle (RSV) and its special safety features. The RSV program at NHTSA is in a phase that involves both vehicle tests and a consumer acceptance evaluation. As part of the evaluation, NHTSA chose to conduct market research among consumers, using the mode of focus group discussions.

The research probed such areas as: why a person purchases a particular car, positive and negative attributes of currently owned cars, characteristics of an ideal car, the desirability of safety features in cars, attitudes toward government regulation of the automobile industry, and, most importantly, consumer attitudes towards the Research Safety Vehicle.

The focus group approach to market research develops insight and direction rather than quantitatively precise or absolute measures. Because of the limited number of respondents and the limitations in recruitment, the research must be considered in a qualitative frame of reference. However, it is a commonly used method of aiding business executives and other desision-makers who want to test consumer attitudes and opinions toward a concept, service, or product.

Twenty-three focus group discussions, averaging 10 participants per group, were conducted in six cities: Boise, Idaho; Milwaukee, Wisconsin; San Diego, California; New Orleans, Louisiana; Austin, Texas; and Hartford, Connecticut.

The panels were separated into the following categories in each city:

Males - Large or medium car owners and small car owners

Females - Large or medium car owners and small car owners

One hundred twelve men and 110 women participated in the 23 groups. One hundred eighty were White, 20 were Black, 11 Hispanic, two Oriental and one American Indian. The age range was 22 to 60.

Family income levels were spread fairly evenly among the panelists. The ability of the panelists to purchase a car like the RSV was representative of the general population's ability to do so. No particular city had panelists with an unusually high or low income level.

During each focus panel discussion, participants were shown 1.5 minutes of crash test film footage showing large cars hitting smaller cars. They were asked whether a small car could be made to withstand the damage shown in the film in such a way as to protect the participants. Most thought the technology existed,

but that it would take a heavier car and gas mileage would be reduced. Others concurred and added that a heavy frame and roll bars, or other race car type features, could protect passengers from the serious injury and withstand more damage.

Participants then saw a one minute commercial with actor Lorne Green as spokesman. He showed test footage of the RSV rolling over, running into a wall at 50 miles per hour, and bouncing back from a ten mile per hour impact.

Those who expressed an interest in buying the RSV made comments such as:

- "I need a safe car like this to get me from point A to B and I don't care what it looks like."
- "This is my dream car! If I can get it with the options I want, I'd buy it tomorrow."
- "I'd swap all four of my cars for this one-- I just love it."
- "This sounds like my dream car-- sporty, good mileage, stick shift, and if it has the right price tag, I'll buy it."
- "I'd buy it--what kind of price can you put on your life?"
- "We need this type of car--it looks safe."
- "I think it will appeal to the under 25 age group."

- "Plastic (body composition) may cost more but the car is lighter so you'll save on fuel."
- "With children you really think about safety."

When asked whether panelists would buy the safety "package" of features to be included on another style of car rather than the RSV, most said "yes." When asked what they would be willing to pay for the package, most said between $300 and $1,500. They thought the safety package price actually charged by a manufacturer could be as much as $3,000 over the normal sticker price of a car.

Of the 222 persons who participated in focus groups, 57 expressed an interest in buying the RSV if it were on the market in the next 30 days. Of this group, 46 were married, nine were single and two were divorced. A majority of the married buyers (36 persons) had children living at home, and 15 persons had no children at all.

The research showed that 15 persons (or 26 percent) of the potential buyers use their safety belts almost all the time. A relatively large percentage of persons whose incomes exceed $35,000 expressed an interest in the car.

Sample comments from those who would buy this car were:

- "If it's as safe as it appears I'd buy it."
- "Looks like a safe, sporty car."

- "I think this car is a beauty."
- "If they show a car like that on TV, I guarantee they won't be able to keep up with the demand--especially when they see how safe it is--there are a lot of parents who would buy this for their children."
- "Just watching this commercial--I'm ready to buy this car."
- "When will it be coming out? I like it."
- "I'd be glad to test drive this car for a year--I really like it."
- "My fantasy car looks just like this--a sporty car that I can afford, like a Mustang--it's ideal for me and it's beautiful."
- "My teenager would love to get his hands on this car but he'd have to fight me for it."
- "I'd buy this car for my son so he could have a safe, sporty car."

Because each focus group received a type of safety "education" prior to providing assessments of the RSV--such as the Lorne Green commercial and data on automobile injuries and accidents, spontaneous consumer reaction in the marketplace will not necessarily parallel reactions of the focus group participants. This research indicated, however, that a consumer education program on automotive safety may heighten acceptance of the RSV by the car buying public.

Presently, characteristics such as price and fuel economy have the strongest lead in the purchasers' field of priorities. But one focus panel participant made a particularly cogent response to a question on the desirability of safety features. He noted that "until now, car manufacturers haven't been building cars to be safe and advertising it. So consumers are naive about auto safety compared to fuel economy, styling, and comfort. Once safety is introduced and consumers get involved, then the marketplace will dictate the level of safety consumers want."

DOT-HS- 805-455

# ONSUMER ACCEPTANCE OF RSV FEATURES
# e II: Comprehensive Report on 23 Focus Groups to Investigate Consumer Acceptance of Research Safety Vehicle Features

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| qt | quarts | 0.95 | liters | l |
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| l | liters | 1.06 | quarts | qt |
| l | liters | 0.26 | gallons | gal |
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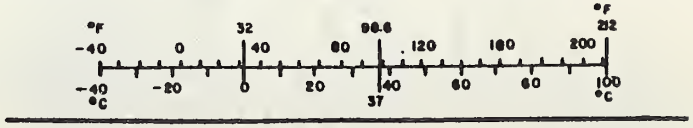

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## I. INTRODUCTION

This study was designed to gain insight into the attitudes of the car buying public towards the Minicars Research Safety Vehicle (the RSV) and its special safety features.

The RSV program at the National Highway Transportation Safety Administration (NHTSA) is in a phase that involves both vehicle tests and a consumer acceptance evaluation. As part of the evaluation, NHTSA chose to conduct research among consumers, using the mode of the focus group discussion. The major areas discussed in these focus groups include:

A. Reasons for most recent car purchase
B. Positive attributes of most recent car purchased
C. Negative attributes of most recent car purchased
D. Attributes and qualities of an ideal car
E. Safety issues
F. Attitudes toward the RSV
G. RSV purchase intent
H. Attitudes toward government regulation

This study determines the degree to which the above factors are important and/or understandable to the limited group of participants in the research, and the effect any of the factors may have on purchase intent. A related area of interest in this

study is the degree to which automobile safety is wanted by the car consumer and the perceived cost of safety options on vehicles.

Twenty-three focus group discussions were conducted in six cities during the weeks of April 14 and 21, 1980:

- o Boise, ID
- o Milwaukee, WI
- o San Diego, CA
- o New Orleans, LA
- o Austin, TX
- o Hartford, CT

With the exception of Austin (where three panels were conducted), four panels were conducted at each site. There were two panels of men and two of women. The panels were separated into the following categories in each city:

Males - Large or medium car owners and small car owners

Females - Large or medium car owners and small car owners

Recruiting specifications asked for a representative sample of age, race and income. All panelists were licensed drivers. At least half of the participants in each panel had purchased a new car in the last three years. One panel of women and one of men were composed of drivers of small cars (i.e., mini-compact, sub-compact and compact.) Of the remaining two panels--one of women and one of men--one was composed of medium size car drivers and the other had drivers of large or luxury cars. Edited EPA lists of car models from 1977 to 1980

provided the recruiters examples of cars and the classes into which they fell.

The Prism Corporation senior staff members moderated all of the panels: Naomi Henderson, President, and Kristin Curran, Director of Marketing. A total of 222 people participated in the group discussions.

## II. STATEMENT OF LIMITATIONS

The focus group approach to market research seeks to develop insight and direction rather than quantitatively precise or absolute measures. Because of the limited number of respondents and the limitations in recruitment, this research must be considered in a qualitative frame of reference.

The reader may find some information that seems erroneous in character. When such data appears in the context of findings from the participant point of view, it should be considered as valid data. That is, the participant may be misinformed or simply wrong in his knowledge or judgment. The reader should interpret that as useful data and resolve to inform the group represented by the participant through an education process or capitalize on the misinformation in the marketing or presentation of his product.

This study cannot be considered reliable or valid in the statistical sense, since a replication of the recruitment is not possible, nor is the conduct of the session. This type of research only provides a first step in determing knowledge, awareness, attitudes, and opinions about services, concepts, or products.

## III. METHODOLOGY

Each focus group panel was conducted in the following manner: the moderator asked initial "warm-up" questions about the participants' likes and dislikes in their present cars and additional features they would desire in their most recent car purchased. Participants were asked to describe their "fantasy car" that would have all the ideal features they could imagine. Moderators listened carefully for spontaneous comments about safety as a reason for a car purchase in order to determine the priority of safety in the purchase decision. Then the moderator led the group into a discussion on safety features and the importance of safety in automobiles. Panelists were educated on the purpose and attributes of any safety features with which they were not familiar (e.g., air bags and automatic safety belts.) Participants were shown film footage of test accidents between large and small cars and they further discussed safety based on this audio-visual information.

Finally, the panels were shown the RSV commercial with actor Lorne Green advocating the safety of the research vehicle. Photographs of the RSV, both interior and exterior shots, were provided along with a margin summary of RSV attributes for participants to review at leisure during the remainder of the session. (See Appendix C for copy of photograph with performance attributes.) Comments on the RSV and its features were solicited after approximately one hour of preparatory discussion on automobiles and safety. Participants were asked what they thought the cost of

the RSV would be and the cost of the "safety package" if it were added to traditional cars. In addition, they were encouraged to ask questions about the RSV. They were asked how they would market the RSV to the American public.

The panels closed with a discussion of government regulation in the automobile industry and the pros and cons of government involvement in automobile safety issues.

## IV. STATISTICAL INFORMATION

The source of data for the statistical information presented is the Background Information form completed by participants prior to the start of each group discussion. (See Appendix A for a sample copy.)

One hundred twelve men and 110 women participated in the 23 focus groups. One hundred eighty eight were White, 20 Black, 11 Hispanic, two Oriental and one American Indian. The age range was 22 to 60.

Two questions were asked of each panelist regarding his or her driving experience. When asked at what age they had received their first driving license, the vast majority answered between 15 and 18. A small number said 19-25 and there was the rare instance of 14 (for farm equipment) and some new middle age drivers. When asked whether they had learned to drive on a stick shift or automatic, 135 said stick and 67 said automatic. One respondent learned on a model T which had pedals.

FIGURE 1

FAMILY INCOMES

| | Up to $14,999 | $15-24,999 | $25-34,000 | $35,000 or more |
|---|---|---|---|---|
| BOISE | 11 | 12 | 8 | 11 |
| MILWAUKEE | 2 | 17 | 12 | 10 |
| SAN DIEGO | 9 | 16 | 9 | 6 |
| NEW ORLEANS | 5 | 13 | 14 | 5 |
| AUSTIN | 6 | 4 | 2 | 4 |
| HARTFORD | 8 | 12 | 16 | 6 |
| | 41 | 74 | 61 | 42 |

Family income levels were spread fairly evenly among the panelists. The ability of the panelists to purchase a car like the RSV was representative of the general population's ability to do so. No particular city had panelists with an unusually high or low income level but Boise had the widest spread of incomes.

FIGURE 2

YEAR OF MOST RECENT

AUTO PURCHASE

| | 1979-80 | 1977-78 | Prior to 1977 |
|---|---|---|---|
| BOISE | 20 | 11 | 11 |
| MILWAUKEE | 19 | 12 | 11 |
| SAN DIEGO | 15 | 13 | 11 |
| NEW ORLEANS | 16 | 11 | 10 |
| AUSTIN | 10 | 5 | 1 |
| HARTFORD | 13 | 16 | 14 |
| | 93 | 68 | 58 |

Seventy percent* of the panelists had purchased a car within the past 3-4 years. Therefore they were relatively aware of current automobile costs, features and other characteristics.

*ie., 161 of 219 people responding to this question.

FIGURE 3

TOTAL NUMBER OF CARS IN IMMEDIATE FAMILY

| | 1 | 2 | 3 | 4 or more |
|---|---|---|---|---|
| BOISE | 7 | 18 | 3 | 9 |
| MILWAUKEE | 9 | 24 | 7 | 2 |
| SAN DIEGO | 4 | 18 | 12 | 6 |
| NEW ORLEANS | 12 | 19 | 4 | 1 |
| AUSTIN | 6 | 4 | 1 | 5 |
| HARTFORD | 6 | 21 | 12 | 5 |
| | 44 | 104 | 44 | 28 |

The majority of panelists had two cars in the immediate family and our discussions revealed that these cars often did not fit into the same size category. Many families had one larger and one smaller car. Also, many households included light trucks as a second or third vehicle. In the "four or more" category, a number o respondents included trailers, recreational vehicles and off-road vel cles.

FIGURE 4

RELATIVE SIZE OF NEW CAR

| | SMALL CAR PANELS (12) | MEDIUM CAR PANELS (6) | LARGE CAR PANELS (5) |
|---|---|---|---|
| NEWEST CAR IS SMALLER | 76 (67%) | 21 (43%) | 13 (25%) |
| NEWEST CAR IS LARGER | 15 (13%) | 17 (35%) | 16 (30%) |
| NEWEST CAR IS SAME SIZE | 22 (20%) | 11 (22%) | 24 (45%) |
| | 113 | 49 | 53 |

Each panelist was asked whether his or her last car purchased was smaller, larger, or the same size as the car purchased prior to that. A few answered that it was their first car or they did not know, therefore the total responses fall slightly short of the total number of panelists. Small car owners were most likely (67%) to have "downsized" in their most recent car purchase. The statistics on medium and large car owners do not show as significant a disparity although large car buyers were most likely to have purchased cars of the same size (45%) and 43% of medium car drivers had a larger car prior to their present one. Only 48 of 215 respondents (22%) had purchased a car that was larger than their previous car.

FIGURE 5

SAFETY BELT USAGE

| | SMALL CAR DRIVERS | MEDIUM CAR DRIVERS | LARGE CAR DRIVERS |
|---|---|---|---|
| "almost all the time" | 28 (25%) | 6 (12%) | 11 (21.5%) |
| "a lot of the time" | 16 (14%) | 7 (14%) | 4 (8%) |
| "not too often" | 47 (42%) | 25 (51%) | 11 (21.5) |
| "none of the time" | 22 (19%) | 11 (23%) | 25 (49%) |
| | 113 | 49 | 51 |

Two hundred thirteen people responded to this question. 66% fell into the categories of "not often" or "never" users. Only 21% used their belts "all the time." The remaining panelists were sometime users.

This data on seat belt usage may differ from that extracted from large statistical surveys and it should be viewed as applicable only to this particular population of focus group participants.

## V. QUALITATIVE FINDINGS

The qualitative findings are based on the results of 12 focus panels of small car owners, six of mid size car owners and five of large car owners. For ease of comparison, we have grouped the mid size and large car owners together and will contrast their comments against the small car owners.

At one time it seemed feasible to separate the comments of men and women with respect to their answers about automobile features in general, and RSV features in particular. In reviewing the audio tapes, we did not find significant differences in the responses. Men tended to know a bit more about the operation and mechanics of cars, but in terms of purchase decisions or attitudes toward safety, the differences were minimal. Women spontaneously mentioned safety of children more than men, but men commented more on the comfort of the families for automobile travel. Reactions to aesthetic characteristics of the RSV varied slightly. For example, more men responded favorably to the look of the gull wing doors than did women. But the sexes reacted similarly in their like or dislike of the sporty appearance of the car.

For each of the eight areas of qualitative findings, we will discuss the general findings first, then present representative quotes that reflect the differences between small car owners and medium size/large car owners, if any.

A. REASONS FOR MOST RECENT CAR PURCHASE

The moderators asked questions in this area both to build rapport with group participants and to establish the priorities individuals assigned to reasons for car purchases. Of the 222 respondents, only two individuals mentioned safety as a primary reason for buying a particular car. The most often stated reasons for buying the last new family car were:

- Fuel economy (this was usually the first reason mentioned and agreed upon by all respondents, except in large car panels where size and comfort were mentioned first)
- Needed more room for family (primarily mentioned by medium and large car owners)
- Styling features (options, color, etc.)
- Performance features (low maintenance, reliable, dependable, acceleration capability for access to freeways)
- Previous good experience with specific manufacturers
- Monetary concerns (rebate available, price was right, good deal)
- Car's use of regular gas

Small Car Owners

Almost to a person, small car owners indicated that the primary reasons for buying a small car were fuel economy and price. Some sample comments:

- "I like a small car that can take any kind of gas."
- "A small car is easy for me to maintain--I can do most of the work myself."
- "I wanted an affordable sports car."
- "The Pinto was still inexpensive enough."
- "I bought a small car for the mileage but if I had it to do over, I would buy a big car for the comfort."
- "For price, economy and dependability--Toyota is great."
- "I bought our second Honda for fuel economy."
- "I had this kind of car before and I wanted another small car with good gas mileage."
- "The price was right for a car that was meant for in-town driving."
- "We bought a smaller car for my husband's trip to the office--26 miles each way--and saved on gas."
- "My old car was dying so we looked around for a car with good gas mileage--a small car fit the bill."

Mid/Large Car Owners

There was some defensiveness on the part of this group of drivers. They felt that their cars did not get as good gas mileage as a small car and it was somehow "not all right" to want a car for comfort first. However when asked the major reasons they purchased their most recent car they cited size and comfort as primary. Some representative comments:

- "It's my ninth Cadillac--I like the elegance of Cadillacs."
- "The Buick is comfortable and it looks fine."
- "I need room for the children."
- "I wanted a smooth, comfortable, elegant car."
- "My husband is a large man--we wanted a small car but he just did not fit into one--so we got a good deal on a mid size car."
- "I have had good luck with Oldsmobiles and the price was right."
- "We needed a big car to pull a trailer."
- "We needed more room for trips and for the children."
- "My wife did not feel safe in a little car--she wanted something big and dressy."
- "We needed a car that could carry four adults in comfort."

- "I wanted a Kingswood because it's bigger but I went for price and style and took a Malibu."
- "I need a car with lots of trunk room since I am on the road a lot--I feel like a yo-yo in a small car."
- "I had been in an accident with a similar car and liked the way it handled."

B. POSITIVE ATTRIBUTES OF MOST RECENT CAR PURCHASED

Again, moderators were looking for a spontaneous mention of safety features when they asked participants what quality, feature or attribute was most positive about their car. Positive aspects of new cars usually centered around comfort, styling, size, ease of maintenance, fuel economy and styling characteristics. Participants discussed the degree to which they had made "trade-offs" or compromises with respect to new car purchases. For example, participants frequently stated that in order to get a car quickly from a dealer they would buy a model on the lot even though it did not have options they wanted, or more options than they wanted. A number of women stated that they acquiesed to husbands' decisions to buy cars that did not fully meet their expectations or desires. The most frequent trade off was the luxury and comfort of a big car for gas savings and the lower sticker price of a smaller car. Older and taller men were less likely to sacrifice comfort and leg room for gas economy than any other demographic group.

Small Car Owners

Some of the points that small car owners found positive about their cars are summarized here:

- Gas mileage
- Easy turning radius
- Easy access hatch back
- Takes regular gas
- Easy, low maintenance
- Dependable
- Front wheel drive
- Stick shift
- Affordable price

Mid/Large Car Owners

Mid/large car owners had similar positive comments about their cars:

- Comfort
- Holds entire family easily
- No blind spots
- Luxurious
- Easy to handle
- Has the power to tow a trailer
- Quiet
- Cruise Control
- Trunk space for sales samples
- Head and leg room

- Tilt steering wheel
- Styling features

C. NEGATIVE ATTRIBUTES OF MOST RECENT CAR PURCHASED

Prior to the panels the moderators had held the opinion that the lack of safety features would be mentioned spontaneously when participants were asked what characteristics, qualities or attributes were least appealing in their newest car. This opinion was not supported by the panels. Respondents were concerned about poor gas mileage, catalytic converters, and performance and styling characteristics primarily. They were also concerned about the low quality of dealer service.

Small Car Owners

- Uncomfortable on long trips
- Lack of head room
- Noisy
- Poor gas mileage
- High cost of foreign parts
- Bumper guards too low
- Difficult to steer front wheel drive in the rain
- Not much pick up
- Vibrates at 50 miles per hour
- Back windows don't open
- No side vent windows
- Difficult to enter back seat because of safety belt interference

Mid/Large Car Owners

- Doors too heavy
- Car large outside but small and cramped inside
- Poor mileage
- Rear seat too small for adults
- Trunk space too small
- Uncomfortable seat belt
- Disliked mini spare tires
- Can't seat four in comfort
- Difficult to enter rear seat because of seat belt
- High repair rates

Participants were generally concerned that gas prices were beginning to dictate the types of car they could buy, considering the amount of money they were able to spend on cars. Many participants indicated that they did not have much latitude with regard to car purchase because the decision centered around size, price, and gas mileage.

## D. ATTRIBUTES AND QUALITIES OF AN IDEAL CAR

Moderators asked participants to construct a fantasy car or a dream car. The caveats were that the car had to be in the price range of their next car purchase, had to meet the current needs of the family lifestyle, had to be gasoline or diesel powered, and have features within reason. Most participants found

it difficult at first to project their desires for a new car that was ideal for them. It appeared that participants usually survey what is available in cars, match price against what is wanted, and settle for the car that most closely fits their needs and budget. Many stated that they got their first choice in a car, but those who did not said they gave up qualities such as "extras" and options and made trade-offs of:

- room for a cheaper price
- price for more room
- size for price and style

In discussing their ideal car, participants did not mention safety spontaneously. Figure 6 shows those features that panelists mentioned without special probing by the moderator.

FIGURE 6: ATTRIBUTES AND QUALITIES OF AN IDEAL CAR

This chart summarizes the spontaneous comments made by participants when asked what they would want in an ideal car.

| KEY AREAS | SMALL CAR OWNERS | MID SIZE CAR OWNERS | LARGE CAR OWNERS |
|---|---|---|---|
| Desired Gas Mileage | 30-40 mpg | 25-30 mpg | 20-30 mpg |
| Desired Styling Features | • Rear defroster<br>• Size of Citation, Volare, Pinto<br>• Folding rear seats<br>• Split bench seats<br>• Front wheel drive<br>• Digital equipment<br>• Adequate leg/head room<br>• Good brakes<br>• Less plastic<br>• Aerodynamic design<br>• Sleek look | • Size of Catalina, Cutlass, Mustang<br>• Power seats<br>• Four doors<br>• Bucket seats<br>• Rear window defogger<br>• Holds 4-5 in comfort<br>• Sporty<br>• Cloth seats | • Anti-rust paint<br>• Tilt wheel<br>• Power seats<br>• Four doors<br>• Size of Seville, Buick Regal, Deville, 98 Olds Diesel<br>• Eye appeal<br>• Seats three in front and back |
| Desired Performance Features | • Cruise control<br>• Diesel engine<br>• Easy enough to do own repairs<br>• Tinted windshield to reduce glare<br>• Heavier weight to improve ride<br>• Fast acceleration | • Economical engine with "pick-up"<br>• Front wheel drive<br>• Strong frame construction<br>• Easy repairs<br>• Good handling<br>• Minimal air pollution tendencies | • Cruise control<br>• Diesel engine<br>• Easy handling<br>• Heavier frame<br>• Dealer service |
| Safety Features Mentioned Spontaneously (Before the Moderator's Prompting) | • Heavier doors<br>• Comfortable safety belts<br>• Air bags (2 persons) | • A car that goes no more than 70 mph<br>• Gas tank that won't blow up on impact<br>• Circular frame to prevent crushing | • Safety of a large car |

Comfort, price, styling, performance characteristics, and certain "extras" came up most frequently.

Two persons said spontaneously that they would like to have air bags in their fantasy car. One person stated: "I want a safe car that gets me there, and I don't care how it looks."

Figure 7 presents information developed from the panelists only after the moderator asked two probing questions about price and safety features.

Several unsolicited comments were made about the desire for an ideal car made by an American manufacturer:

- "I can't understand why U.S. manufacturers cannot build a large fuel-efficient car. Only the foreign manufacturers can do it. Why?"
- The American industry is far behind the foreign manufacturers in quality and engineering."

E. SAFETY ISSUES

After the discussion on safety features of an ideal car, moderators talked about five specific areas of safety and elicited comments on each:

1. Safety Belts - usagé and reasons for non-usage
2. Air Bags
3. Automatic Safety Belts
4. Relationship between size of car and safety of passengers
5. Perceptions of safest car on the highways

FIGURE 7: SAFETY ATTRIBUTES AND QUALITIES OF AN IDEAL CAR

This chart summarizes the comments made by participants after the moderator asked the probing questions: "What would you pay for your ideal car?" "What safety features would you add to your ideal car?"

| | SMALL CAR OWNERS | MID SIZE CAR OWNERS | LARGE CAR OWNERS |
|---|---|---|---|
| Desired Price Tag Range | $5,000-14,000. | $5,000-10,000. | $6,000-15,000 |
| Safety Features Added | • Manual override for power windows<br>• Comfortable safety belts<br>• Safety belts that allow easy access to rear seats<br>• Air bags<br>• Better quality materials and construction<br>• "Anti gear jumping" device<br>• Roll bars<br>• Tinted windows<br>• Bigger bumpers<br>• Heavily padded dashboard<br>• Automatic safety belts | • Comfortable safety belts<br>• Air bags<br>• Collapsible fenders<br>• Safety glass<br>• Whatever it takes to reduce chances of a fire<br>• Safer child restraints<br>• More padding in dash board<br>• Shock absorbers in bumpers<br>• Reinforced doors<br>• Hydraulic bumpers<br>• Rear window defogger | • Steering wheel lock<br>• Automatic door locks<br>• Comfortable safety belts<br>• Warning light for low gas<br>• Manual override for power windows<br>• Air bags<br>• Shock absorbing bumper<br>• Radar brakes (1 person)<br>• Less plastic in construction |

1. Safety Belts - Usage and Non-Usage

Generally speaking, participants were representative of the general public. With respect to safety belt usage, 21 percent wore belts most of the time. Over 66 percent were "seldom" or "never" users and the remaining percent were "sometime" users. While participants gave a variety of reasons for non-usage of belts, the primary justifications seemed to be:

a. They are uncomfortable (especially for very short or very tall persons)

b. They are inconvenient to use or a "hassle" to use

c. Individuals have not established a habit or pattern of usage

d. They interfere with access to the back seat of a two-door car

A smaller but vocal segment feels that it is more dangerous to wear one than not (e.g., "You cannot get out of a trapped or burning car.") Occasionally we found a staunch supporter of belts: "I've totalled two full sized cars and never been injured and it is only because I wore my belt."

Some other comments made by participants about usage and non-usage of belts are:

Small Car Owners

- "I wear a belt out of habit."
- "I wear the belt because the buzzer drives me crazy."

- "I only wear one as the passenger in someone else's car."
- "I only use it in the city--not on the highway."
- "When the kids are in the car I wear my belts as an example, otherwise I don't wear them."
- "I don't buckle up because I don't usually drive too far from home."
- "It's a hassle--I'm in and out of the car 30 - 40 times a day."
- "I don't like being restrained--I have claustrophobia."
- "I don't wear them because they are uncomfortable."
- "When belts are more comfortable, I'll be more apt to wear them."
- "I don't like the harness. In our old car we just had the lap belts and,to tell the truth, I've never tried the harness in our new car."
- "Once you've been in an accident you are more likely to wear your belts in the future."
- "My boyfriend disconnected my belts."
- "I wear them all the time in my company car because I have to, but I never use them in my own car."
- "Belts are better than bags, since you know they will work because you know they are on you."

- "Safety belts hang you when you try to get into the back seat of the car."
- "Child safety seats do not always fit well into cars. The automobiles need to have adapters in them to allow the child seats to be snapped into the car without special modification to the seat or car."

Mid/Large Car Owners

- "My family never used them so I don't either--I think it is instilled in you from your family."
- "I feel like I'm planning for an accident if I put my seat belt on--it's psychological."
- "I'm afraid of being trapped--and I don't like having my clothes wrinkled."
- "I think there should be a law like the one in Germany that requires children to sit in the back seat and wear seat belts."
- "I don't feel safe--I can't get it tight enough to suit me. I feel that I'll go through the windshield if I hit something. I feel like it's useless."
- "I only wear the lap belt--I'm so short (5'0") I can't breathe when I have on the shoulder harness."
- "I don't wear it in my own car but when I'm in the State car I buckle up."

- "I read this article that says belts are not as valuable as they are thought to be--because of what we've read, we've changed our attitude toward seat belts and now don't wear them. They are uncomfortable too."
- "Psychologically I remember that someone I know died because of a seat belt and I don't wear mine because of that."
- "I buckle up on the highway, if I plan to take a nap and my husband is driving."
- "Depends on how I'm dressed. If I have on furs I won't wear a belt."
- "I drive defensively--I don't need belts."
- "The belts are broken."
- "It's negligence on my part--I just don't bother."
- "I like to feel free when I drive."
- "With only a lap belt on it looks like you would jackknife over and hurt yourself worse than if you didn't wear one at all."

2. Air Bags

In almost every panel, participants generally were unfamiliar with air bags and their intended use. Those participants who were familiar with them (and a number of them indicated they thought favorably of air bags) usually had information from

a television program or an article that detailed usage and performance qualities. It was apparent that prior to consumer acceptance, a strong educational program on air bags is essential. Participants were unclear on the following points:

1. What are the chances of accidental triggering?
2. Will they pop in a rear-end collision?
3. Is the "air" in the bags toxic?
4. What's the cost to repack the bag?
5. What if the bag is not used for 5 years--will it go off when needed or will the plastic deteriorate?
6. Will they deflate quickly?
7. How big are they?
8. Will they suffocate a small child sitting in the front seat when inflated?
9. What about secondary impact accidents?
10. Can a car be steered while the bag is inflated?

The advocates of air bags and their possible usage by manufacturers cited the following reasons for their positive attitudes:

1. They are better than safety belts.
2. If the idea works it will save lives.
3. The responsibility for safety is not left up to driver.

4. There is no need for safety belts with air bags.

5. Insurance rates should go down and justify the expense of the air bags.

Some representative comments on air bags:

Small Car Owners

- "If they were perfected, they would be more effective than safety belts."
- "Belts get twisted and dirty--you won't have that problem with air bags."
- "If people used their seat belts we wouldn't need air bags."
- "They're not worth a $500.00 price tag on new cars."
- "I think it's a gimmick to increase service costs."
- "The reason I don't wear a belt is because it's not part of my habit pattern--air bags would relieve me."
- "I'm for air bags--I think that a life is well worth it--if it would save a life."
- "I think they can pad the dashboard to protect passengers without using air bags."

- "They are better than seat belts--they keep you from going through the windshield."
- "When it's for your own safety the cost of air bags doesn't really matter."
- "I wouldn't trust them."
- "I need more information about them and a performance record before I would have them in my car."
- "If air bags were an option most of us would take an alternative, like wire wheel hub caps--as an option it would never fly."

Mid/Large Car Owners

- "There is no safety feature I would say 'no' to."
- "Look what you pay for in a car--plastic, no vent windows, etc. We might as well pay a little more and get some safety. What I resent is paying for a car without quality control and no safety!"
- "For the average person, safety features add to the price of the car and we just can't afford it."
- "If they were any good they'd be in cars right now."

- "I've heard they cause fires."
- "They would be good for people who don't like to to wear seat belts."
- "With all the cars on the road and the number of accidents, 'they' have to come up with something to save lives."
- "Air bags are a necessary evil."
- "I think automatic safety belts make more sense than air bags."
- "In this part of the country (Idaho) I don't think they are necessary--the head-on collision rate is low in this region of the country."
- "Air bags do no good for whiplash."

3. Automatic Safety Belts

Most panelists had unclear information about automatic safety belts. Many had no idea what they were and guessed incorrectly how they would be used. After seeing photos of them, several remembered that they had heard about them. Moderators asked whether mandatory installation of automatic belts in the next few years would encourage use of safety belts by non-users. They asked whether individuals would be likely to disconnect them. The reaction to the belts was more positive then negative. Many people said that if the automatic belts were comfortable,

they would accept them. One remarked, "automatic belts would be guaranteed insurance for my kids." Some non-users indicated that it would relieve them of the "hassle" of remembering to buckle up and they would be inclined to use them. Others remarked that the belts would make it difficult to load groceries, children, car seats or packages. A small number of people indicated they would be inclined to disconnect the belts.

Small Car Owners

- "The automatic belts would encourage some people to use belts even if they are uncomfortable."
- "There's no buzzer."
- "They restrict your movement inside the car."
- "I don't like anything that's mandatory."
- "I don't like the idea of being constrained."
- "I'm not impressed by them."
- "Belts just are not comfortable, period."
- "Automatic belts would make it difficult to work on the car."

Mid/Large Car Owners

- "I like air bags better than seat belts because even with belts you hit the dash or steering wheel some."
- "Great idea! Less restrictive and I don't have to remember to put them on."

- "I would cut them out because I do not believe in belts--a lot of people are thrown clear in accidents, and if they had on their belts they would have been killed."
- "If they were hassle free it would encourage people to use them."
- "One nice thing about automatic belts is that they are passive--there is nothing for you to do--you close the door and you're strapped in."
- "Car manufacturers will have to back these safety gadgets for me to take a chance on them."
- "I'm worried about not being able to release it in time to get out of the car."
- "They have some appeal because you don't have to dig in the seat for parts of the belt and there's nothing to remember."
- "I like the whole idea!"
- "I'm worried. How does this type of belt adjust to a small child?"
- "The government is telling me I have to wear my belts and I don't like that."

- "In a small car they would be important."
- "This idea is lots better than what we have now."
- "I used one in a VW and it hit me at the wrong place on my body."
- "It would force me to use belts--that's for sure."

4. Size of Car and Relationship to Safety of Passengers

Most participants agreed that in an accident, they would be safer in a large car rather than a small car. Some participants remarked that smaller cars avoid accidents more easily because of maneuverability, but that generally speaking at the time of impact, the larger cars have the advantage. Panelists presented the following reasons:

- Large cars have more metal to absorb impact
- Longer hoods in front mean that the point of impact is farther from the passenger
- Large cars are less likely to tip over or roll in an accident
- Large cars have room for passengers to slide or roll before they come in contact with car parts

Most panels thought that as more cars on the road become smaller, their odds of being in an accident with a large vehicle would decrease. They said they would feel safer despite the continuing danger from trucks and fixed objects.

Small Car Owners

- "Standardized bumper heights would help so that small cars wouldn't go right under other bumpers."
- "On highways, truck wheels above your window make you feel defenseless."
- "I think the difference is a myth; manuverability of small car makes up for the difference in size. You can avoid an accident more easily in a small car because you are a smaller target."
- "I'll take my chances with a small car."
- "I need to be a better driver because I own a small car."
- "In any car today you take a chance--small or big, the quality of the materials isn't too great. In a small car you have less chance of walking away safely."
- "Heavier cars make me feel safer."
- "Big cars are just made of fiberglass so the material and construction don't help much--just the size."
- "Large cars crumple just like small ones these days."

Mid/Large Car Owners

- "Between large and small cars you have an equal chance at low speeds."
- "Big cars crush metal, not bones."
- "There is less room in a small car to be thrown around before you hit the dash."
- "If everyone rode in small cars I'd feel safer in small cars."
- "I have better control over my big car because of power steering."
- "A big car is better on a snowy highway."
- "Big cars take accidents better."
- "Here (in Texas) people drive more dangerously than up north so we wouldn't go to a real small car."
- "One reason we bought the Regal was because they had big chrome bumpers."
- "Based on driving a small car in Europe for ten years I think small cars are just as safe as big cars."
- "There are a lot of people who are forced to buy small cars because of fuel costs or car costs, and they are sacrificing safety. They would rather have larger, safer cars, but can not afford them."

## 5. PERCEPTIONS OF SAFEST CAR ON THE HIGHWAY

When asked, "what is the safest car on the highway?" more than three quarters of the participants said they did not know and would be unwilling to guess. Volvo was mentioned frequently by those who did guess. The following statements are examples:

- "Any car made by GM"
- "Luxury cars--Cadillac, Mercedes-Benz, Rolls-Royce"
- "Foreign cars--BMW, SAAB, Volvo"
- "Vans, or off-road vehicles"
- "I read where in a recent test the Citation and the Mustang got high ratings on safety and all the Japanese cars failed."

The reasons given for high safety in the Volvo included:

- "Those cars are engineered for safety first"
- "More and heavier metal is used in construction"
- "Frame of car is substantial and can withstand damage better"
- Those foreign manufacturers do not change their basic vehicles very often. Thus, they have been making their same cars for a long time and have learned how to make them better."

Some general comments about car safety are included below:

Small Car Owners

- "Cars like Volvo and SAAB have more evasive capability. It is just as important to

avoid a crash as it is to reduce bodily harm in the event of a crash."

- "Hatchbacks are suicide cars--there is no protection."
- "Regardless of what car you are driving when your time is up, it's up."
- "I bought a bright yellow car so people could see me."
- "The safe or unsafe aspect of smaller cars do not bother me--it would not persuade me to buy a larger car."
- "I took it for granted that the car I bought would be safe."

Mid/Large Car Owners

- "I feel safe in my van--I am up high and can see better."
- "I did not give safety any consideration when I bought my car--I just assumed it had reasonable safety features."
- "I do not give safety a high priority when I buy a car--status is more important."
- "No car is safe."
- "I depend on my skills as a driver and I drive fast when the conditions allow."
- "Aggressive drivers are safer--they are alert."

## F. ATTITUDES TOWARD ATTRIBUTES AND QUALITIES OF THE RSV

Participants were shown 1.5 minutes of crash test film footage showing large cars hitting smaller cars. They were asked whether a small car could be made to withstand the damage shown in the film in such a way as to protect the participants. Most thought the technology existed, but that it would take a heavier car and gas mileage would be reduced. Others concurred and added that a heavy frame and roll bars, or other race car type features, could protect passengers from the serious injury and withstand more damage. Some comments about the crash test film included:

- "I am sorry I drive a Honda."
- "I am glad I have a gas hog--I stand a better chance."

Younger participants remarked that similar test footage had been shown in driver's education classes but that such footage usually involved similar size cars.

Participants then saw a one minute commercial with Lorne Green as spokesman. He showed test footage of the RSV rolling over, running into a wall at 50 miles per hour, and bouncing back from a ten mile per hour impact. Spontaneous comments directly after the film included:

- "It looks like a rubber car!"
- "Now I know how air bags work."
- "Did you see it roll?"
- "Why didn't they show the damage after the rolling?"

- "Those are some funny shaped doors!"
- "That is not a family car."
- "How could you open those doors in a crowded parking lot?"
- "It is a space age - looking car."
- "My teenager would like it."

When asked who they thought made the car, participants most often indicated that it was AMC ("It looks so much like the Pacer.") If AMC was not mentioned early after the film, the other manufacturer most often cited was GM, followed by foreign car manufacturers and lastly, independent car makers. In 23 panels only five persons guessed that the federal government was responsible for development of the car.

The qualities or attributes of most positive interest to participants (after the photos and attribute lists were passed out) included:

- Style of door*
- Sporty styling of car
- Rear bucket seats
- The way the car rolled in the RSV commercial
- Air bags
- Good visibility of car

*Male participants tended to react favorably and female participants usually were not as enthusiastic about the doors.

- 50 miles per hour impact data
- Use of clear headrests
- Recessed lights
- Fire extinguisher in front
- Instrument panel
- Heavily padded dash
- Fuel economy rating
- Amount of glass in car
- Futuristic look

Negative comments about the RSV included:

- "You could never open those doors in a crowded parking lot."
- "The extra $2,000 cost for safety features is not worth it when I only have a limited amount to spend."
- "It would cost just as much as any other car to repair after damaged."
- "Kids will buy this car and see who can roll it the most."
- "I am not sure all the things on this car have been adequately tested."
- "I would never buy a car with windows that do not roll down."
- "I want a car to be on the road a few years and tested out before I'd buy it."
- "I'd wait until there were parts available and the mechanics of it had been tested."

- "Small car owners buy small to save money, so they can't focus on an additional price they'd pay for safety."

Most small car owners were able to compare the RSV to their own automobiles and form opinions based upon style, price, and features including safety. But mid/large car owners had the additional consideration of size because the RSV obviously did not have the interior space of their own cars. Comments on the RSV by mid/large car owners reflected this important difference.

Small Car Owners

- "It looks safe. I'd feel secure in this car."
- "We need this car, we have death traps now."
- "I realize I'm driving a coffin on wheels and I would pay extra for these safety features."
- "It will be ten years before a car like this is mass produced."
- "Adjust the doors (to standard type) and I'll take it."
- "If Lorne Green likes it, I like it."
- "I would buy it for my son--it is too sporty for me."
- "The design seems to show a foreign influence. For example, the little pictures on the turn signals are like

the Toyota."

Mid/Large Car Owners

- "It's not big enough for my family.
- "If everything said was proven true and if the car had been out two years and had good reports, I'd consider it--but only as a car for two people."
- "It looks too much like a sports car to suit my purposes."
- "I'd be interested a little after my kids got older."
- "The doors are the only thing I don't like, it looks like they were put on just to make the car look unique."
- "This type of car looks unsafe to me."
- "I think older people would like a more conservative kind of car."
- "It is nice for my teenage son--they are more accident prone anyway."
- "If it is as safe as it appears to be, I'd buy it."
- "It is a safe utility car for a small family but it has limited use."
- "You could build this car for safety and make it larger."

- "When will it be coming out--I like it."

G. PURCHASE INTENT

Prior to commenting on their purchase intent, the panelists saw accident film footage, had preparatory discussion on safety issues and car features and saw the Lorne Green commercial advocating the RSV. It is important to recognize that safety was seldom brought up by panel participants--it most often had to be interjected by the moderator. This provides an indication of the relative importance of safety in these consumers' minds. After the safety discussion began and the moderator showed the crash test film, a different mood developed in the groups. The mood placed a heavy emphasis on auto accidents, injuries and death. The participants' discussion was channeled solely into this area. Considering this concentration on auto safety, there were a limited number of participants who were enthusiastically interested in the RSV. Those who did express a sincere interest in buying the RSV made positive comments such as:

- "I need a safe car like this to get me from point A to B and I don't care what it looks like."
- "I want my teenage son to have a safe car and I would buy it for him."
- "This is my dream car! If I can get it with the options I want, I'd buy it tomorrow."
- "I'd swap all four of my cars for this one--I just love it."

- "This sounds like my dream car--sporty, good mileage, stick shift, and if it has the right price tag, I'll buy it."
- "I'd buy it--what kind of price can you put on your life?"
- "We need this type of car--it looks safe."
- "I think it will appeal to the under 25 age group."
- "Plastic (body composition) may cost more but the car is lighter so you'll save on fuel."
- "With children you really think about safety."

An issue explored in the panel was "what do you need to know about this car to come to a purchase decision?" Many questions about the RSV were asked by the panelists.

- "What is the expected price of the car?"
- "Will the government require car manufacturers to build this car?"
- "How heavy is the door? Does it have a hydraulic system?"
- "What's the repair data on this car?"
- "How is the motor installed?"
- "How much gas will the tank hold?"
- "What's the resale value?"
- "How easy will it be to get parts?"
- "How do the windows open?"

- "Are small children safe in the front seat of the RSV?"
- "How long will the plastic last? Does it peel? Can it be painted? Will dents or scratches show?"
- "What about seat belts (lap belts in front seats)--in addition to air bags?"
- "What is the cost to replace special parts?"

When asked whether panelists would buy the safety "package" of features to be included on another style of car rather than the RSV, most said "yes." However, when asked what they would be willing to pay for the package, most said only between $300 and $1,500. They thought the safety package price actually charged by a manufacturer could be as much as $3,000 over the normal sticker price of a car.

An unanswered question remains: how real was the purchase intent and enthusiam towards the RSV manifested by certain participants, considering the forced environment of the focus panel situation? This study has indicated that in order for a vehicle with superior safety capabilities to gain market demand, the potential buyers must first get upset about deaths and injuries on the highways. As long as consumers are complacent and have a "It won't happen to me" attitude, safety will not be a big seller in the marketplace. Consumer behavioral changes are needed, and might be accomplished through educational programs that provide consumers with facts. Presently, many consumers

form opinions based upon "old wives' tales," rumors, and misinformation. If means are developed to encourage consumers to think voluntarily about auto safety and to evaluate its importance to them, they are more likely to consider auto safety in their purchase decisions.

## H. ATTITUDES TOWARD GOVERNMENT REGULATION

Moderators asked several questions of participants regarding the role of government regulation and involvement in the automobile industry:

> "Do you think the government should regulate safety features in cars? Fuel economy in cars?"
>
> "Do you think the government should be involved in (i.e., spend tax dollars on) the development of automobile features, or should private industry handle it?"
>
> "If the government developed a safety rating system for cars would you use it as an aid in your next car purchase decision?"

Reaction was mixed on these three questions. Respondents were rarely neutral on the issue of government regulation. A number of participants felt that the automotive industry would not have independently developed specific fuel consumption guidelines or installed safety belts in all cars, had the government not required it. Other participants felt that private industry (in this case, auto makers) gives the public what it wants and when the public demands changes then private industry produces.

This group also felt that maintaining the "free enterprise system" should be the primary concern of government and that too much government regulation weakens the economy.

Comments about government regulation have been divided into two categories below: those for government regulation, and those against it. The size of car owned by the panelist commenting is not relative to this particular subject area.

Pro-Government Regulation

- "The public will not cry out for more safety in their cars, and it is a serious social problem; the government has to get into regulation. But everytime the government regulates, it makes the product cost more."
- "I think it's time somebody did something about safety."
- "Why did the government build this car--are they the only ones concerned about our safety?"
- "We have to be realistic--we are going to be forced to smaller cars; this car (RSV) is the answer."
- "The government has to step in because people will not look out for themselves."
- "If the government does not regulate car safety, nobody will."
- "This is government being constructive and

it is a good use of tax dollars."

- "When you look at our environment, who cares about air pollution or poison in the food? The only people who care are in government--some public body has to say what's good and what's not--the problem comes when they infringe upon my individual rights."
- "I think the government should be in the safety business. They backed Chrysler--they should back someone to build a safe car."
- "The auto industry never put in any safety devices on their own--they were always forced to by the government."
- "It's a good thing that the government did this research--but they should let competition in the marketplace keep the price down."
- "Government should say--'you must make cars that get 80 miles per gallon, if you don't you can't sell cars.'"
- "With our energy problem, government regulation is a must. Look at Brazil--all their cars run on gasohol."

Anti-Government Regulation

- "Why does 'big brother' have to regulate our lives--we are adults--I've reached the point where I'm tired of the government telling me what I can do in my car or anywhere else."
- "I want free choice--if I want to be safe it's my business. I don't want the government telling me I have to be safe."
- "The government is increasingly telling people what to do--in cars it's better left up to the car manufacturers."
- "I'd rather make up my mind than be forced into it by a government decision."
- "I don't want the government to tell me what's safe--I want to decide for myself."
- "Government regulations add to the price of cars."
- "More and more decisions are being made in Washington, not by the people."
- "It's OK to regulate the manufacturers, but not the consumer."
- "Air bags should come from Detroit's response to the market, rather than Congress' response to the people."

- "Government regulation has caused more problems--catalytic converters cut down on pollution but drive fuel economy down."
- "Anytime the government gets involved, it does more harm than good."

NHTSA wanted to garner some information from consumers regarding their perceptions and attitudes toward a government safety rating system.

Once again no one was neutral on the topic. Supporters felt that it would be useful and some indicated that the ratings would have to be very specific to be of maximum use. Those opposing the system felt that the government had lost credibility in rating systems since the EPA fuel economy ratings are inaccruate. Some comments to illustrate the dichotomy follow:

- "I would use a system if it told me the following information: Type of glass, blowout potential, skidding potential, degree of fire hazard and amount of impact that side, front, and rear could sustain without injury to me."
- "If I thought there was one small car that was safer on the freeway than another--I would buy the one with the better safety features."
- "Even if a rating system were available,

price would still be the primary factor in car purchases."

- "If they had never forced Detroit to deal with fuel economy, they would have never made smaller cars--that could work with safety too."
- "If the safety rating system is as inaccurate as the EPA fuel economy rating, I would ignore it. The government does not put out any reliable statistics."
- "The government would be objective with a rating system--like meat inspections."
- "Safety has never been promoted as a factor in the decision-making process of buying a car."
- "Right now we don't have the option to choose safety when buying cars."
- "Government ratings for cars would be suspect from day one."
- "I would not use a rating system--I would go on buying exactly what I wanted in a car."
- "In a particular size category there is not going to be much safety difference between cars and I cannot see where a rating system would do any good."

- "It is a waste of tax dollars to develop another system--federal people are unqualified to make these ratings."
- Consumer Reports already runs this kind of data for consumers--there is no need for the federal government to become involved."
- "If it were posted in the window of every car, I would look at it when car shopping."

## VI. CHARACTERISTICS OF POTENTIAL RSV BUYERS

This section takes a closer look at the people who expressed a sincere interest in purchasing the RSV. The purchase interest of this small group of individuals cannot be projected to the universe of car buyers. The data is presented here to describe how this group differs from all the individuals who participated in the group discussions.

The category "RSV Buyer" is defined as those persons who expressed a spontaneous interest in the car after seeing the commercial and viewing the photographs of the car.

Out of 222 persons who participated, 57 expressed a sincere interest in buying the RSV if it were on the market in the next 30 days. Of this group, 46 were married, nine were single and two were divorced. A majority of the married buyers (36 persons) had children under 18, and 15 persons had no children at all. The remainder had children over 18.

Figure 8 presents some of the key characteristics of RSV buyers. Figure 9 presents the number of children of the RSV buyers and the children's age category.

In Figure 8 the data shows that 15 persons (or 26 percent) of the buyers use their safety belts almost all the time. This figure can be contrasted with the 21 percent of the total sample who use their belts most of the time. Also, a relatively large percentage of persons whose incomes exceed $35,000 expressed an interest in the car.

FIGURE 8

KEY CHARACTERISTICS OF RSV BUYERS

| CHARACTERISTICS | NO. OF PERSONS |
|---|---|
| Income | |
| $ 0 - 14,999 | 9 |
| $15 - 24,999 | 21 |
| $25 - 34,999 | 16 |
| $35,000 plus | 11 |
| Number of Cars Owned | |
| Own one car | 9 |
| Own two cars | 31 |
| Own three cars | 10 |
| Own four or more cars | 7 |
| Seat Belts Used | |
| Almost all the time | 15 |
| A lot of the time | 5 |
| Not too often | 25 |
| None of the time | 12 |

FIGURE 9

RSV BUYERS-

NUMBER OF CHILDREN AND AGE CATEGORY

| | Total No. of Children | No. of Children Under 18 Years | No. of Children Over 18 Years |
|---|---|---|---|
| Small Car Owners | 39 | 31 | 8 |
| Large Car Owners | 36 | 20 | 16 |
| Midsize Car Owners | 38 | 27 | 11 |

Using the categories with the largest number of persons represented, we can draw a rough profile of the RSV buyer:

- Married
- Between the ages of 25-45
- At least two children under 18
- Earns between $15,000 and $25,000
- Has two family cars
- Doesn't wear a safety belt too often.

A sample of comments from those who would buy this car are provided here:

- "If it's as safe as it appears I'd buy it."
- "If it seats five I'll take it."
- "Looks like a safe, sporty car."
- "I think this car is a beauty."
- "If they show a car like that on TV, I guarantee they won't be able to keep up with the demand--especially when they see how safe it is--there are a lot of parents who would buy this for their children."
- "The body of this car is like a young tree that bends with the wind but doesn't break."
- "Just watching this commercial--I'm ready to buy this car."
- "When will it be coming out? I like it."

- "People who come to focus panels should get first priority to buy this car."
- "I'd be glad to test drive this car for a year--I really like it."
- "My fantasy car looks just like this--a sporty car that I can afford, like a Mustang--it's ideal for me and it's beautiful."
- "My teenager would love to get his hands on this car but he'd have to fight me for it."
- "I'd buy this car for my son so he could have a safe, sporty car."

Some panelists were asked about the best way to market the RSV to the American consumer. To stimulate comments they were asked to pretend they were on the Board of Directors of the car manufacturer who produced the RSV. Some of their comments:

- "Stress safety capabilities--people need more information in order to be convinced that high levels of safety can be achieved in small cars."
- "Don't limit the car to only those who have the money to afford it. Make it for poor people also."
- "Use a headline like: 'What kind of price do you put on your life?'"

- "People basically think that it (death) will never happen to them, thus the advertising should push style, damage resistance, maintainability, and at the end say, 'By the way, it will also save your family's lives.'"
- "Our perceptions of cars have been created by the Big Three--no one has designed a car for safety before--we have no frame of reference."
- "Say, 'Safety for only $X.'"
- "Use the car in some popular TV show (reminiscent of the Corvette in Route 66)."
- "Put an RSV in every car dealership as a demo for two years."
- "Why can't American car manufacturers build a car that's safe and has good mileage? The technology is there."
- "The American public is ready for anything reasonable."
- "I feel frustrated about car safety--looks like I can't do much to get a safe car--I'm concerned but helpless--the RSV looks promising."
- "Use key words like: 'live', 'survive', 'safe' and 'stylish.'"

- "Stress good gas mileage."
- "People will take these features and say, 'I'm invincible' and it will cause them to be more reckless drivers."
- "Drive safely with class."
- "Create some interest--let it snowball--tell people it's a year before they can get it (like the Honda or Mazda) and then in one year have 1,000,000 ready to sell."
- "Let Civil Service workers buy this car at discount since DOT built it."
- "Show accidents where actual people get out safely."
- "Have a test group of everyday Americans drive this car for a year, then do focus panels on their perceptions and have them fill out survey forms on all aspects of the car."
- "Stress that insurance rates will be lower with this car."
- "Until recently there wasn't any market for fuel efficient cars. Now that cars are getting more fuel efficient (smaller and lighter), there should be a new interest in safety."

## VII. CLOSING STATEMENT

This qualitative market research study investigated consumer attitudes toward RSV performance attributes with emphasis on the enhanced safety of the RSV. It also evaluated consumer acceptance of the Minicars four seater 2500 lb. design RSV. This report presents the attitudes and most significant responses of the 222 people interviewed about the RSV. It provides insight into the wide variety of concerns, interests and levels of knowledge of these average consumers that ultimately manifest themselves in purchase decisions in the marketplace. Qualitative research of this type is used extensively in the decision-making process by executives and leaders in private industry and government. Although the data collected cannot be projected to the car buying public in a statistical sense, the group discussion technique for this evaluation revealed numerous positive and negative attitudes within the framework of a very focused discussion.

The focus group received a certain amount of "education" prior to providing a final assessment of the RSV--including the very positive and persuasive commercially-produced television advertisement starring Lorne Green. Spontaneous consumer reaction in the marketplace will not necessarily parallel that of the focus group participants without similar background information on passenger safety, injury prevention features, and accident statistics.

This research indicated that a consumer education program on automotive safety may heighten acceptance of the RSV by the

automobile purchaser. One panelist made a particularly cogent response to the question of the desirability of safety features. He noted that "until now, car manufacturers haven't been building cars to be safe and advertising it. So consumers are naive about auto safety compared to fuel economy, styling, and comfort. Once safety is introduced and consumers get involved, then the marketplace will dictate the level of safety consumers want." Presently, however, the characteristics of price and fuel economy have the strongest lead in the field of priorities that includes performance, styling, space, and ease of maintenance.

# APPENDIX A

## BACKGROUND INFORMATION FORM

BACKGROUND INFORMATION

CITY_____ DATE OF PANEL_____

TIME OF PANEL_____

1. Name_____ Sex: M___ F___

2. Marital Status: Married___ Single___ Divorced___ Separated___
Widowed___

3. No. of Children_____ their ages:___ ___ ___ ___ ___
___ ___ ___ ___ ___

4. Total Family Income: ____0-14,999
____15,000-24,999
____25,000-29,999
____30,000-34,999
____35,000+

5. Race: Black___ Hipanic___ Oriental___ White___

6. What was the last year in which you purchased a new car?
____1980 ____1978 Prior to 1977____
____1979 ____1977

7. What kind of car did you buy? Model:_____

8. With respect to the last car purchase, which one of these statements is true?
____My new car was smaller then my last car purchase
____" " " " larger " " " " "
____" " " " about the same size as my last car

9. How many cars in total are owned by your immediate household? ____1 ____2 ____3 ____4 or more

10. Do you wear your safety belt:

____Almost all the time
____A lot of the time
____Not too often
____None of the time

11. Thinking of the car you personally drive most often, indicate your typical gas mileage:

____8-19 mpg
____20-24 mpg
____25-29 mpg
____30-34 mpg
____35-39 mpg
____40 or more mpg

12. How old were you when you got your first permanent driving license? _____

13. When you first learned how to drive did you have:

____ a. Stick shift
____ b. Automatic

# APPENDIX B

# MODERATORS' GUIDE

MODERATOR'S GUIDE

AUTOMOBILE PANELS

APRIL 1980

I. INTRODUCTION

A. Introduce self -- state role of moderator

B. The purpose of tonight's session is to get your views and opinions regarding automobiles. We'll be talking about what you like and don't like about cars in general. We'll also have you look at some audio-visual material about cars and give your reactions.

C. 24 panels are being conducted on this topic and the results will be used as part of a study to determine consumer reactions to a variety of car features.

D. Ground rules for session:

- Audio taping
- Stipends
- No right or wrong answers
- One way mirror
- Associates - note taking
- Everybody needs to talk - one at a time

Let's go around the room and meet everyone. Introduce yourself to the group and tell us a bit about yourself. (Name, age, job title, etc.)

II. VEHICLE OWNERSHIP AND USAGE (NOW AND FUTURE)

A. What kind of cars do you now drive? (All cars driven by family.)

B. When you bought your most recent car--

1. What were you looking for in a car?

- Price
- Performance
- Fuel economy
- Styling, etc.
- Safety

--What was most important?

2. Is the car you bought your first, second or third choice? What was the major reason you bought the car you did? (Price, comfort, safety, etc.)

3. If you had to sacrifice one feature quality for another, what would you be most willing to give up or compromise on when buying a new car? (Price, fuel economy, safety, styling, etc.)

C. 1. What do you like most about your newest car?

2. What do you like least about your newest car?

3. What features or qualities would you like to have on your newest car that are not currently part of your car?

III. VEHICLE FEATURES

I'm interested now in hearing some of your attitudes towards specific characteristics that can go into making up an automobile. To do this let's create a car in our minds, a

fantasy car, that you would like to own and then let's talk about the features of that car.

1. Let's start with performance. What performance characteristics are important to you in an automobile?

2. What would be the size of your fantasy car?

3. What characteristics of maintenance do you look for in a car?

4. How about styling? Is it important? What looks good to you?

5. How important is comfort and what makes a car comfortable?

6. What safety features would be included in your fantasy car?

7. How do you characterize the fuel economy of your fantasy car?

8. Now what are you willing to pay for the car?

IV. SAFETY

Let's talk a moment specifically about safety options that exist now and may come in the future. How do you feel about:

- Safety belts (Use them? Like them?)
- Air bags (Know what they do? Would you use them?)
- Automatic safety belts (Know how they work?)

- Safety in small cars vs. larger cars

What makes or model of autos do you think are safe? What makes them safe?

V. PRESENTATION OF MINICARS RSV

I'm going to show you a variety of audio visual materials.

- (SHOW VIDEO) Stock footage material

1. Have any of you ever seen film footage like this before?

2. Do you think cars can be made to withstand accidents like this with less damage?

3. How do you feel about the car you're now driving after seeing this film?

- (SHOW RSV FOOTAGE)

1. Who do you think made the car?

2. Is there any thing about the car that you found unusual or interesting?

Now I'm passing around a photo to each of you that shows this Research Safety Vehicle and next to it are some points explaining the car's characteristics.

(PASS OUT TO THEM, TIME TO READ)

1. Do you think the RSV appears to be significantly safer than the car you now drive?

2. Are the safety features important to you?

All of them?

3. What would you be willing to pay if the safety package were added to your new car?

4. How much more would manufacturers add to the price if they added the safety package to new cars?

5. In any given year, what would you guess your chances are of being involved in an accident? One in What? (1 in 8)

6. Which types of accidents do you think are most common and that you are most concerned about--frontal, rear or side impacts?

7. If the government provided a safety rating system similar to the EPA rating system, would you use it to select your next car?

8. What do you think the sticker price would be on this car?

9. What additional information about this car do you need to make a purchase decision?

10. If I told you the expected price tag for this car is $6,500 to $7,000, what would you think?

11. If you were on the Board of Directors for the car company that makes the RSV, how would you market the car to the American public?

VI. GOVERNMENT REGULATIONS/INVOLVEMENT IN VEHICLE DESIGN

1. Do you think the government should regulate safety features in cars? Fuel economy in cars?

2. Do you think the government should be involved i.e., spend tax dollars in the development of automobile characteristics/features or should private industry handle it? Why?

3. If the government developed a safety rating system for cars would you use it as an aid in your next car purchase decision?

# APPENDIX C

# PERFORMANCE ATTRIBUTES OF RSV


## PERFORMANCE ATTRIBUTES

## OF RESEARCH SAFETY VEHICLE

- occupant survival in frontal crashes into fixed objects at speeds up to 50 mph
- large improvement in occupant protection in side crashes
- fuel economy in the range of 30-35mpg
- good ride, comfort and handling characteristics
- high technology design and construction
- optional radar-assist cruise control to reduce the chance of accident