

# **AUTOMATIC SAFETY BELT SYSTEMS OWNER USAGE AND ATTITUDES IN GM CHEVETTES AND VW RABBITS (1980 MODELS)**

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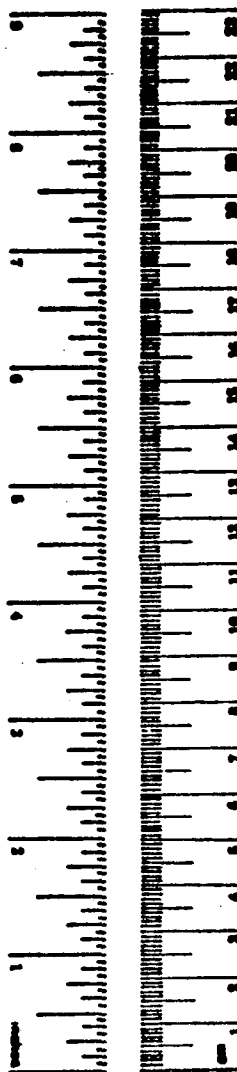
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16. Abstract This study was designed to: (1) evaluate the effectiveness of automatic restraint systems in increasing belt usage, and (2) determine owner attitudes toward the systems. The information gathered from owners of vehicles with automatic systems will assist the NHTSA in determining levels of acceptance, and problems or areas of resistance to these systems. Such information provides an "early warning" of critical problem areas that need to be resolved before automatic restraint systems become standard equipment in all cars. Data collected are derived from 2,015 telephone interviews with owners of 1980 Chevettes and Rabbits with automatic belt systems and 430 interviews with owners of Chevettes and Rabbits with manual belt systems. Findings indicate that the automatic restraint system is highly effective as a use-inducing device. Reported safety belt usage for models with the automatic systems is about twice the reported use for models with manual belts. There are, however, certain problems with the automatic belt systems that are having a negative impact on belt use. One such problem relates to ingress and egress, while the other might be described as "belt fit" or "positioning of the chest/shoulder belt." Also, it would be desirable to communicate to car dealers and their sales personnel the favorable attributes of the automatic belt system so that they, in turn, might become more active supporters of the system at the point of sale.					
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## METRIC CONVERSION FACTORS

### Approximate Conversions to Metric Measures

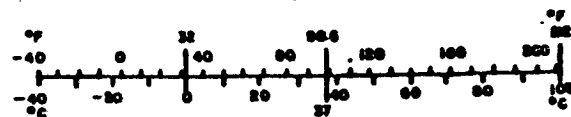
Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
<b>AREA</b>				
sq in	square inches	6.5	square centimeters	cm <sup>2</sup>
sq ft	square feet	0.93	square meters	m <sup>2</sup>
sq yd	square yards	0.8	square meters	m <sup>2</sup>
sq mi	square miles	2.6	square kilometers	km <sup>2</sup>
acre	acres	0.4	hectares	ha
<b>MASS (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
<b>VOLUME</b>				
teaspoon	teaspoons	5	milliliters	ml
tablespoon	tablespoons	15	milliliters	ml
fluid ounce	fluid ounces	30	milliliters	ml
cup	cups	0.24	liters	l
pint	pints	0.47	liters	l
quart	quarts	0.95	liters	l
gallon	gallons	3.8	liters	l
cubic foot	cubic feet	0.03	cubic meters	m <sup>3</sup>
cubic yard	cubic yards	0.76	cubic meters	m <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°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 Weight and Measure, Price \$2.25, SD Catalog No. C13.10-286.



### Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
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
<b>AREA</b>				
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
m <sup>2</sup>	square meters	0.4	square miles	mi <sup>2</sup>
ha	hectares (10,000 m <sup>2</sup> )	2.5	acres	acre
<b>MASS (weight)</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	ton
<b>VOLUME</b>				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	1.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	36	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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## INTRODUCTION

It has been proposed that Automatic Safety Belt Systems (also referred to as "passive restraint systems") will be installed in a large number of cars in the near future. Three automobile manufacturers -- General Motors, Volkswagen and Toyota offered automatic safety belts as an option or part of a luxury package in their 1980 model sub-compact cars. General Motors also introduced the automatic system in their 1978 and 1979 Chevettes while Volkswagen first equipped the Rabbit with this feature in the 1975 model year. General Motors' 1980 Chevette now incorporates an automatic lap-shoulder belt combination as opposed to an automatic shoulder belt and a manual lap belt in their 1979 Chevette. The automatic belt in 1980 Rabbits is a single diagonal shoulder belt.

The findings in this report which are based on interviews with owners of 1980 model Chevettes and Rabbits with automatic safety belt systems will assist the NHTSA in determining levels of acceptance, belt use, and any problems or areas of resistance to the automatic restraint system. In addition, the information gathered provides an "early warning" of critical problems that might be prevented before the installation of automatic safety belts in new cars becomes widespread. Further, information from the present study can be compared to an earlier study among owners of 1978-1979 Chevettes and 1978 Rabbits with automatic restraint systems.

Telephone interviews were conducted with random samples of owners/drivers of 1980 Chevettes and Rabbits with automatic restraint systems. Also, for purposes of comparison, interviews were conducted with random samples of owners/drivers of 1980 Chevettes and Rabbits with manual belts (also referred to as "regular belts"). Not included in this report are the results of 31 interviews with owners/drivers of Toyotas with automatic restraint systems. A sufficient number of Toyota owners were not available for sampling purposes during the data collection period.

## SAMPLE DESIGN

The research findings for this study were derived from 2,445 telephone interviews with owners/drivers of 1980 GM Chevettes and VW Rabbits. Four separate samples of owners were obtained:

	<u>Automatic Restraint Systems</u>		<u>Manual Restraint Systems</u>	
	<u>1980 Chevettes</u>	<u>1980 Rabbits</u>	<u>1980 Chevettes</u>	<u>1980 Rabbits</u>
Total interviews	1,002	1,013	208	222

All respondents interviewed for the study reported, in response to a screening question, that they currently drive the car and also visited the dealer to select their new Chevette or Rabbit at time of purchase.

Names, addresses and zip codes of owners of 1980 Chevettes and Rabbits were obtained through the NHTSA from General Motors Corporation and Volkswagen of America, Inc.

The contract stressed the importance of taking geographic location of owners into account in the sample design. To accomplish this, the four samples of owners selected from the lists provided ORC were matched geographically as close as possible by the five-digit zip codes.

As the first step, the ORC WATS department was provided with the complete list of owners of 1980 Chevettes with automatic restraint systems. Utilizing the full list, the WATS interviewers were able to contact households which contained an eligible respondent and to complete 1,002 interviews. Next, zip codes from the 1,002 completed interviews with owners of Chevettes with an automatic restraint system were matched with zip codes from the lists of owners of the other three samples. The sample universe for all four car owners covers geographic areas where General Motors sold 1980 Chevettes with automatic restraint systems. The list of 1980 Rabbit owners with automatic restraint systems did not contain a sufficient number of owners in the South to match precisely the number of Chevette owners interviewed in this region. Thus, a few more interviews with Rabbit owners living in the Northeast were made in order to obtain a minimum of 1000 respondents.

Although a fairly good geographic distribution of interviews was obtained, the four samples of owners are not, nor were they intended to be, nationwide probability samples of 1980 model year Chevette and Rabbit owners.



A distribution of completed interviews by the four census regions is shown below:

	<u>Automatic Restraint Systems</u>		<u>Manual Restraint Systems</u>	
	<u>Chevettes</u>	<u>Rabbits</u>	<u>Chevettes</u>	<u>Rabbits</u>
Total interviews	<u>1,002</u>	<u>1,013</u>	<u>208</u>	<u>222</u>
Northeast	3%	17%	8%	15%
North Central	29	26	28	27
South	41	32	39	33
West	27	25	25	25

A table showing completion rates for each of the four samples follows:

	<u>Automatic Restraint Systems</u>		<u>Manual Restraint Systems</u>	
	<u>Chevettes</u>	<u>Rabbits</u>	<u>Chevettes</u>	<u>Rabbits</u>
Total households contacted with eligible respondents	<u>1,431</u>	<u>1,590</u>	<u>314</u>	<u>367</u>
Completed interviews	70%	64%	66%	60%
Refusals	8	10	8	14
Owners not available after four calls	17	19	24	24
Business numbers	5	7	2	2

Unless otherwise noted, the percentages in this report are based on the total interviews completed among each of the four groups of car owners. These are:

Automatic Restraint Systems	<u>Base</u>
Chevettes	1,002
Rabbits	1,013
Manual Restraint Systems	
Chevettes	208
Rabbits	222

In the text and tables that follow, the following terms are used to describe cars with automatic restraint systems and cars with manual restraint systems: Automatic Chevette, Automatic Rabbit, Manual or Regular Chevette, and Manual or Regular Rabbit.

### Sample Tolerance

The primary body of data in this report is based in the following number of interviews with owners of:

Chevettes with automatic restraint system	1,002
Rabbits with automatic restraint system	1,013
Chevettes with manual restraint system	208
Rabbits with manual restraint system	222

Throughout the report, tests of statistical significance (at the 95-in-100 confidence level) have been applied. Thus, any statements to the effect that one group of owners is larger (or smaller) than another group may be taken as having met the test of statistical significance. In the tables and charts, the symbol (s) is used to identify a given percentage as being significantly larger or smaller than other percentages.

## SUMMARY AND CONCLUSIONS

### Safety Belt Usage

The findings of this research indicate that the automatic restraint system is highly effective as a use-inducing system in 1980 model year GM Chevettes and VW Rabbits. Models with the automatic belts had significantly higher use rates than did 1980 models with manual belts.

#### Say They Wore Safety Belt Last Time They Drove

Automatic Rabbit Owners	89%
Automatic Chevette Owners	70%
Manual Rabbit Owners	48%
Manual Chevette Owners	31%

The usage rates shown above compare closely to usage rates published in an earlier study conducted by ORC for NHTSA. In the earlier study, usage rates were based on the percentage of owners of 1978-1979 Chevettes and 1978 Rabbits who claimed that they wore the safety belt "always or almost always". The usage rates were: Automatic Rabbit (89%); Automatic Chevette (72%); Manual Rabbit (46%); and Manual Chevette (34%).

The effectiveness of the automatic belt as a use-inducing system was further demonstrated when owners were asked about their use of a manual belt in a second or previously owned car. Among Chevette owners, the usage rate for the manual belt was 26%, as compared with 70% for the automatic belt. Among Rabbit owners, the usage rate was 33% for the manual belt and 89% for the automatic belt.

Although belt use rates among owners of Chevettes and Rabbits with automatic systems are at high levels, a substantial number of owners, particularly Chevette owners, complained that the belt is inconvenient to use and uncomfortable to wear, and these unfavorable opinions have a negative impact on belt usage.

## Effect of Comfort/Convenience Problems on Usage

Owners of Chevettes and Rabbits with automatic restraint systems were asked to consider ten possible problems that they might have experienced when using the safety belt. Responses of both owner groups to these potential problems were similar, though proportionately more Chevette owners reported problems than did Rabbit owners.

A factor analysis shows that several of the frequently cited problems are interrelated and were related to an underlying factor that might be described as "positioning of the chest/shoulder belt". Only ingress and egress problems ranked higher than problems related to "positioning of the belt".

Chi-square tests were performed for Chevette and Rabbit owners to ascertain whether certain problems cited by each owner group were related to nonuse of the automatic belt system. For both owner groups, a high degree of correlation exists between whether the owner cited a particular problem and their reported use or nonuse of the automatic belt. Following are the most frequently cited problems that were most highly correlated with nonuse:

- The belt interferes with entry/exit
- The belt resting on or rubbing across face or neck
- The belt chafes or rubs across chest
- The way the belt crosses chest

## Role of Automatic Restraint System at Time of Purchase

Since the automatic restraint system is a fairly radical departure from the manual restraint system and in time will replace the manual system in most new cars, it is important to try to anticipate how new car buyers and dealers will react to the automatic system as more and more cars become equipped with this system. Thus, the current study was designed to ascertain the opinions of Chevette and Rabbit owners toward the automatic system and to learn what events took place in the dealer's showroom at the time of purchase.

Early in the interview, owners who purchased Chevetttes and Rabbits with automatic restraint systems were asked a series of questions to ascertain what proportions:

- Were aware of the automatic belt system before they entered the showroom;
- Specifically requested the automatic system;
- Inspected other models before deciding on the one they wanted;
- Saw models with the automatic belt system;
- Actually tried on the automatic belt.

It is quite evident from the data obtained that in the purchase of a new car, the type of restraint system, automatic or manual, is not an important consideration. About one-fourth of Chevette owners and one-third of Rabbit owners reported that they were aware of the automatic belt system prior to visiting the dealer, but only five percent of Chevette owners and 12% of Rabbit owners specifically requested the automatic belt at the time of purchase. This suggests that the restraint system plays a very minor role in the purchase of a new car.

Chevette and Rabbit owners who took delivery of models with automatic restraint systems were fairly evenly divided between those who inspected other models in the showroom prior to purchase and those who did not. Among those who looked at other models in the showroom, about onehalf of Rabbit owners and one-fourth of Chevette owners reported that they saw models with the automatic belt. Among each of these two groups, only one out of every two actually got in the car and tried on the automatic belt.

Sizable numbers of Chevette owners (37%) and Rabbit owners (25%) were not aware when they ordered their car that it had an automatic belt system. This is another indication that the restraint system is not an important consideration in the purchase of a new car.

Although majorities of Chevette and Rabbit sales personnel demonstrated or explained the automatic restraint system to people who had purchased models with this system, the data show that most of the sales personnel did not offer their own opinions about the automatic system. This neutral stance on the part of sales personnel may be due to their reluctance to voice an opinion of the automatic system so as not to conflict with any opinion their customers might have about the system. This situation suggests a need to communicate to car dealers and their sales people the positive attributes of the automatic belt system so that they, in turn, might become more active supporters of the system.

#### Owners' Attitudes Toward the Automatic Restraint System

As was evident in the previous study, there are marked differences in attitudes toward the automatic belt between Chevette owners and Rabbit owners. On most issues related to the automatic system, Rabbit owners were more satisfied with and more favorable in their opinions about the system than were Chevette owners.

When asked if their reaction was favorable or unfavorable when they first used the automatic belt, 39% of Chevette owners said "favorable", as compared with 61% of Rabbit owners. Asked for their impression after having owned the car for a while, Chevette owners were almost evenly divided between those who said "favorable" and those who said "unfavorable". By comparison, the favorable vote by Rabbit owners outscored the unfavorable vote by a margin of four to one.

Even more telling is the finding related to the type of restraint system owners said they would prefer if buying another new car. Rabbit owners -- by a margin of 74% to 20% -- said they would prefer the automatic belt. Chevette owners, by comparison, said they would prefer the manual belt over the automatic belt by a margin of 49% to 44%.

Rabbit and Chevette owners were asked to tell in their own words what they like and dislike about the automatic belt in their new car. On the favorable side, comments related to convenience and safety were mentioned most often. Many owners said that they liked the idea of an automatic system because of its convenience and that it provided protection to car occupants. On the negative side, owners complained mainly about difficulties encountered in getting into and out of the car and that the belt was either uncomfortable or did not fit properly.

## Status of Automatic Restraint System in 1980 Chevettes and Rabbits

More than four times as many Chevette owners (22%) as Rabbit owners (5%) reported that the automatic belt in their car had been removed or "fixed" so that it can't be used. As noted earlier, many more Chevette owners than Rabbit owners reported that the automatic belt was inconvenient to use and/or uncomfortable to wear, which probably accounts for the high removal rate among Chevette owners. It is also possible that the 3-point belt system used in the Chevette is less comfortable and convenient for users than is the 2-point belt system in the Rabbit.

## Potential Effect of Interlock System on Safety Belt Use

Survey data indicate that the automatic belt in combination with a starter interlock is more effective in increasing safety belt use than is the automatic belt without the interlock.

Removal of the interlock system in the Rabbit would, in the opinion of Rabbit owners, have a negative impact on belt usage. One-fourth of these owners said that they would probably not use the belt, and 7% said they would definitely not use it, if their car did not have a starter interlock.

## Implications

In conclusion, there is considerable evidence in both the current and previous studies that the automatic belt is superior to the manual belt as a use-inducing device. It can be expected that safety belt use among U.S. drivers will trend upward as more new cars come equipped with the automatic restraint system.

As noted earlier, there are two major problems with the automatic belt, particularly the Chevette's 3-point belt, that have a negative impact on usage. One such problem relates to ingress and egress, while the other might be described as "belt fit" or "positioning of the chest/shoulder belt".

Also, we believe it would be desirable to communicate to car dealers and their sales personnel the favorable attributes of the automatic belt system so that they, in turn, will become more active supporters of the system at the point of sale.

# DETAILED FINDINGS

## Chapter I

### Safety Belt Usage

Subject Areas Covered in This Chapter Include:

- Safety belt usage in Chevettes and Rabbits with automatic restraint systems versus models with regular restraint systems,
- Usage by driver characteristics,
- Usage in Chevettes and Rabbits with automatic belt systems versus other cars with regular belt systems,
- Use of automatic restraint systems by special owner sub-groups.

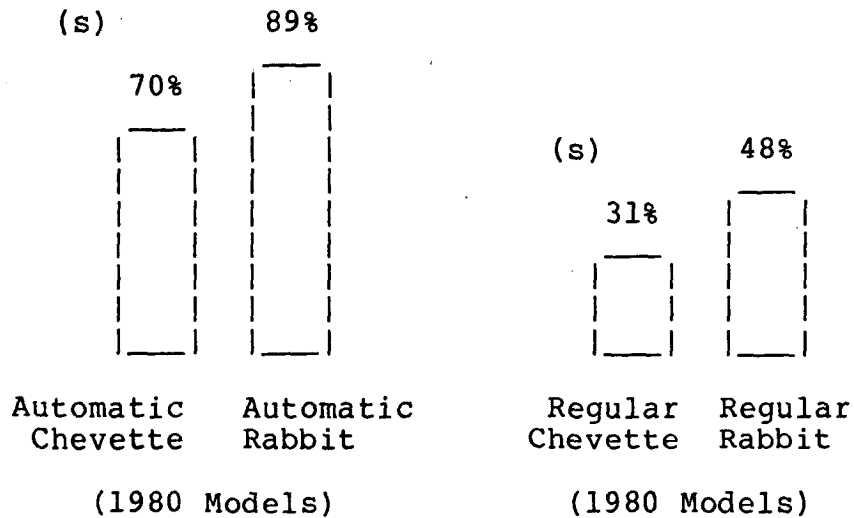


Belt Usage

Owners of 1980 model year Chevettes and Rabbits with automatic belt systems reported markedly greater belt usage than did owners of 1980 Chevettes and Rabbits with regular belt systems. As figure 1 shows, the reported usage rate for Automatic Chevettes was 39% higher than the usage rate for Chevettes with the regular belt system (70% vs. 31%). The reported usage rate for Automatic Rabbits exceeded the usage rate for Rabbits with the regular system by 41% (89% vs. 48%).

Figure 1

Percentage Who Said They Wore Safety Belts Last Time They Drove



(s) = Percentage differences are statistically significant

Usage rates in the current study are based on the percentage of owners who reported that they wore the safety belt in their Chevette or Rabbit. In an earlier study conducted by ORC for NHTSA, owners of 1978-1979 Chevettes and 1978 Rabbits reported the following usage rates: Automatic Chevettes (72%); Automatic Rabbits (89%); Regular Chevettes (34%); and Regular Rabbits (46%). In the earlier study, usage rates were based on the percentage of owners who reported that they wore the safety belt "always or almost always."

Usage by Driver Characteristics

Figure 2 shows usage rates by personal characteristics of the owners and for 2- vs. 4-door models. For both the Automatic Chevette and the Automatic Rabbit, the percentage difference within subgroups was small or only marginally significant. One exception was that the usage score for Automatic Chevette owners in the high school or less classification was significantly lower than the usage score for those who have gone beyond high school. In all of the subgroups below, safety belt usage was significantly higher among Rabbit owners than among Chevette owners.

Figure 2

	<u>Number of Cases</u>		<u>Percentage of Owners Who Say They Wore Safety Belts Last Time They Drove</u>	
	Automatic Chevette	Automatic Rabbit	Automatic Chevette	Automatic Rabbit
Total	(1,002)	(1,013)	70%	89%
Male	453	542	73% } (s)	87%
Female	539	452	68% }	91%
Under 30 years	288	188	73%	87%
30-49	451	515	68%	91%
50 or over	263	310	72%	87%
High school or less	444	276	62%	81%
Some college	405	503	76% } (s)	91% } (s)
Graduate school	114	197	83% }	94% }
Under 5'6"	404	312	68%	88%
5'6"-5'11"	439	472	71%	90%
6' or over	154	223	75%	87%
Under 140 lbs.	391	333	68%	89%
140-179	380	406	69%	87%
180-199	139	143	75% } (s)	90%
200 or over	77	123	75% }	91%
2-door	385	476	69%	85%
4-door	617	537	71%	91%
Deluxe	---	502	---	89%
Custom	---	511	---	89%

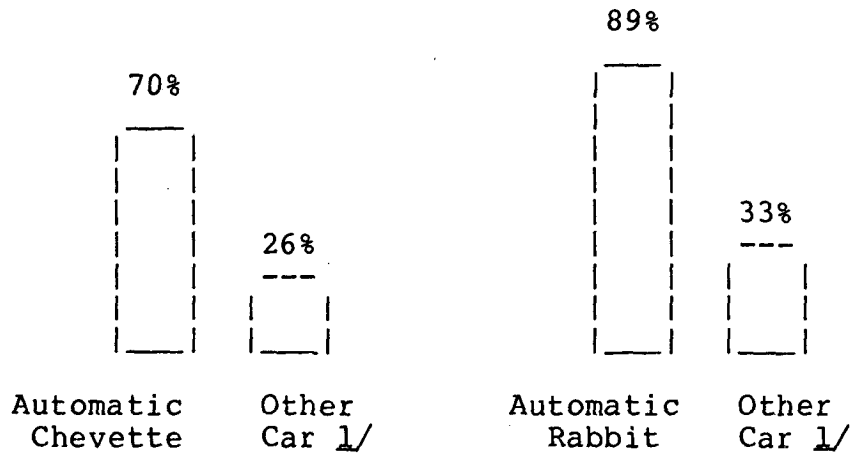
(s) = Percentage differences are statistically significant

Belt Usage for Automatic System Versus Other Car

Usage is further demonstrated in Figure 3. Among owners of Chevettes and Rabbits with the automatic system, more than twice as many reported that they wore the safety belt the last time they drove their new car as reported this about a second or previously owned car. Owners of Rabbits with the automatic systems reported slightly higher belt usage than owners of Chevettes with the automatic systems when driving a second or previously owned car.

Figure 3

Percentage Who Said They Wore Safety Belt Last Time They Drove

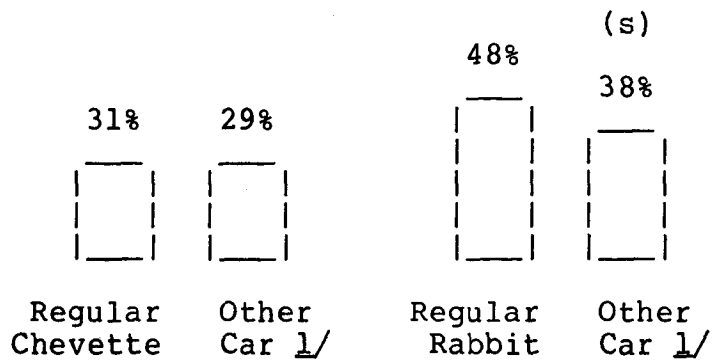


1/ Second or previously owned car with regular belt system

The findings in Figure 4 are reinforced by the findings in Figure 3. A comparison of reported belt usage among owners of Chevettes and Rabbits that have the regular systems with their usage in a second or previously owned car does not show the large gains in belt usage registered by the automatic systems in Figure 3.

Figure 4

Percentage Who Said They Wore Safety Belt Last Time They Drove



1/ Second or previously owned car with regular belt system

## Use of Automatic Restraint System by Special Owner Subgroups

Figure 5 opposite shows the results of six cross tabulations between reported belt usage by owners of Chevettes and Rabbits with automatic systems and how these owners responded to other questions in the survey. Results for each of the six tabulations are reported below:

- Item (1) Reported belt usage tends to be lower among owners of Chevettes and Rabbits who said that at the time of purchase they did not know they were buying a car with an automatic belt system than among owners who did not say this.
- Item (2) Reported belt usage does not differ significantly between those who said their last trip was a short one (less than 25 miles round trip) and those who said their last trip was longer (more than 25 miles round trip).
- Item (3) Reported belt usage was more than twice as great for Automatic Chevettes with an operative warning system than for Automatic Chevettes with an inoperative warning system.
- Item (4) In Automatic Rabbits with an operative interlock system, 92% of owners reported wearing the belt on their last trip. By comparison, only 60% of owners in Rabbits where the interlock has been disconnected said they wore the belt on their last trip.
- Item (5) Owners of Chevettes and Rabbits who said that the automatic belt is convenient to use had usage scores of 85% and 93% respectively. Those who found the belt not convenient to use had usage scores of 42%.
- Item (6) Owners of Chevettes and Rabbits who said that the automatic belt is comfortable to wear had usage scores of 80% and 94% respectively. Those who said the belt was not comfortable had usage scores of 40% and 49%.

Figure 5

Automatic Restraint System by Special Owner Subgroups

	<u>Number of Cases</u>		<u>% Who Wore Safety Belt Last Time They Drove</u>	
	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Total Owners	1,002	1,013	70%	89%
(1) Said they didn't know they were buying a car with automatic belt system	367	254	62% } (s)	85% } (s)
Did not say this	635	759	74% }	90% }
(2) Last round trip was:				
Short (less than 25 miles)	498	525	71%	89%
Longer (more than 25 miles)	504	488	69%	88%
(3) Warning system disconnected	101	---	35%	---
Not disconnected	883	---	74%	---
(4) Interlock disconnected	---	87	---	60% } (s)
Not disconnected	---	923	---	92% }
(5) Said automatic belt was convenient to use	665	915	85% } (s)	93% } (s)
Not convenient	332	94	42% }	42% }
(6) Comfortable to wear	776	888	80% } (s)	94% } (s)
Not comfortable	228	121	40% }	49% }

(s) = Percentage differences are statistically significant

## Chapter II

### Role of Automatic Restraint System at Time of Purchase

Subject Areas Covered in This Chapter Include:

- Exposure and reactions to automatic restraint system at time of purchase
- Owners who requested automatic system at time of purchase
- Role of restraint system in car-purchasing decision
- Demonstration of automatic restraint system by dealer/salesperson
- Attitude of dealer/salesperson toward automatic restraint system

Exposure and Reactions to Automatic Restraint System at Time of Purchase

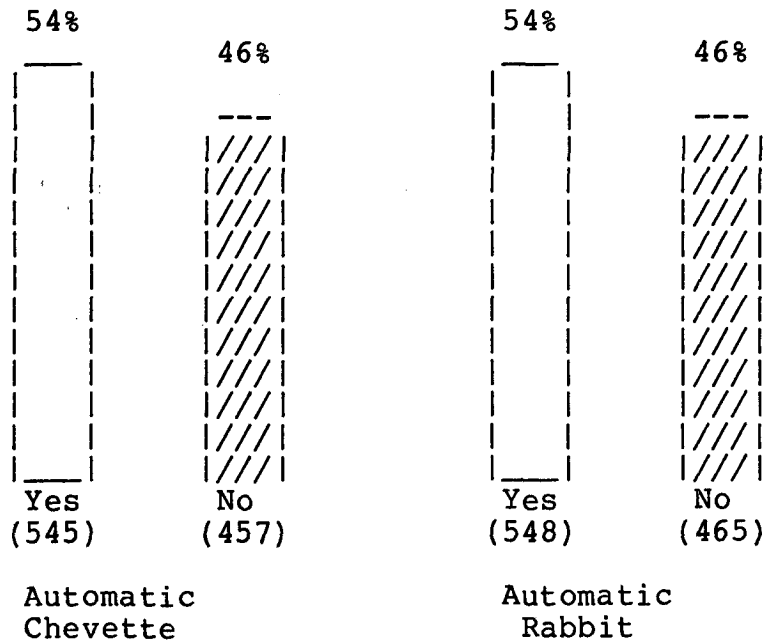
Chevette and Rabbit owners who bought models with automatic restraint systems were asked a series of questions to ascertain what proportion:

- (1) Inspected other models in the showrooms.
- (2) Actually saw the automatic belt.
- (3) Tried on the automatic belt.
- (4) Had a favorable impression of the automatic belt at that time.

Among both Chevette and Rabbit owners who purchased models with automatic seat belts, the proportions are about evenly divided between those who report that they inspected other models in the showroom before making up their minds to buy the model they now own, and the proportions who report that they didn't inspect other models while in the showroom.

Figure 6

"Did you inspect other models in showroom before you decided to buy the car you now have?"



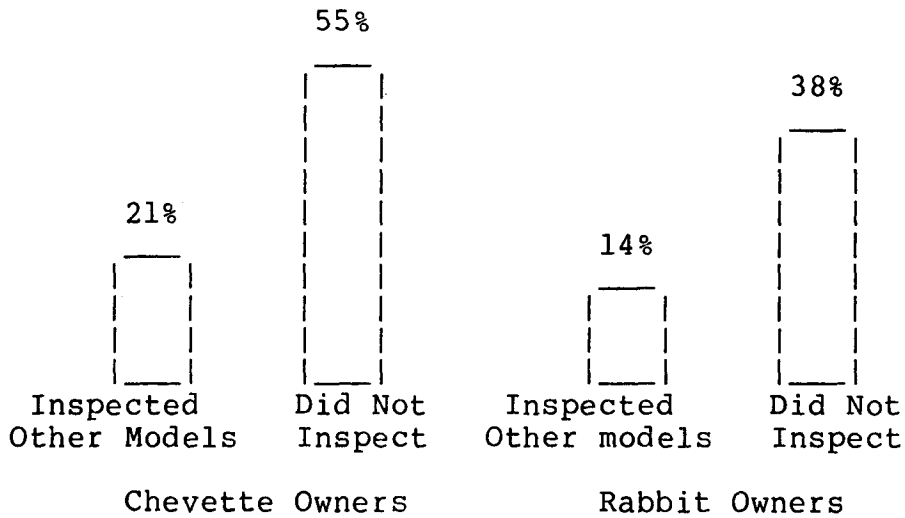
Virtually all Chevette and Rabbit owners who did not inspect other models while in the showroom reported that they knew what model they wanted and just ordered the car.



A substantial number of owners of Chevettes and Rabbits with automatic safety belt systems apparently were not aware at the time they were in the showroom that they were purchasing a car with the automatic system. The proportions who report that they did not know they were getting a model with the automatic system are shown below.

Figure 7

Owners Who Did Not Know They Had Ordered a Car  
With an Automatic Belt System



From the above findings, we can conclude that among all owners surveyed, 37% of Chevette owners and 25% of Rabbit owners were not aware that they were getting a model with the automatic system when they first entered the showroom.

Only minorities of Chevette and Rabbit owners looked at models with automatic belts on the showroom floor, other than the one they purchased. Among those who did see other models with the automatic system, very few actually got into the car to try out the belt system as is evident in Figure 8, below.

Figure 8

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Total Owners	<u>1,002</u>	<u>1,013</u>
Inspected other models in showroom	54%	54%
Saw models with automatic belts	13%	25%
Tried on automatic belt	<u>6%</u>	<u>16%</u>
Decribed their impression of belt as:		
Favorable	2%	9%
Unfavorable	3	4
Neutral	*	2
No Opinion	*	1

\* 1/2 of 1% or less

We can also conclude from the findings above that about one half of the VW dealers and about one fourth of the Chevette dealers had one or more models with automatic belt systems in stock, other than the one purchased.

### Awareness of Automatic Belt Systems at Time of Purchase

Most owners of Chevettes and Rabbits with automatic belt systems first became aware of the automatic system when they visited the dealer to purchase their new car. In response to the question below, 74% of Chevette owners and 65% of Rabbit owners said they first heard of or became aware of the automatic safety belt system at the dealer where they bought their car. Thus, 26% of Chevette owners and 35% of Rabbit owners indicated that they had any knowledge of the automatic belt system prior to visiting the dealer where they purchased their new car. Those who claimed prior knowledge of the automatic system cite sources such as: advertising, word-of-mouth, and seeing it in the same model car owned by another person.

Figure 9

"I'm going to read four different ways that you might have first heard of or become aware of the automatic safety belt system. After I've read the four statements, please tell me which way best describes how you first became aware of it."

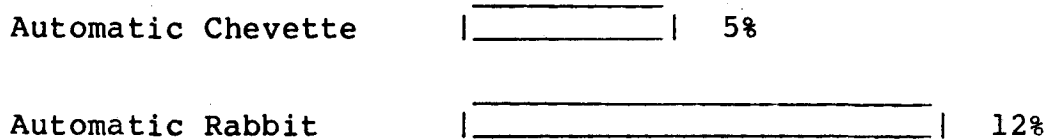
	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
At dealer where bought car	74%	65%
Through advertising:	<u>12</u>	<u>17</u>
Print	6	10
T.V.	6	4
Same model, owned by someone else	4	10
Word-of-mouth	7	5
Other answer	3	3

Asked for Automatic System at Time of Purchase

Relatively few owners of Chevettes and Rabbits with the automatic system said that they specifically requested this type of restraint system at time of purchase. In response to a direct question, only 5% of Chevette owners and 12% of Rabbit owners said that they asked for or requested a car with the automatic belt system.

Figure 10

Owners Who Asked for Automatic Belt System at Time of Purchase



Principal Reasons for Requesting the Automatic Belt

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Percentage who asked for automatic belt	<u>5%</u>	<u>12%</u>
General safety reasons	3%	7%
Convenience--no need to buckle up	2	6
To protect others in car	1	2

Role of Restraint System in Car Purchasing Decision

In the purchase of a new car, the type of restraint system plays a very minor role in the decision-making process. As previously noted, most Rabbit and Chevette owners were not aware of the automatic restraint system prior to visiting the dealer and among those who were aware, only a handful specifically requested a model with the automatic system. When asked why they decided to buy a car with an automatic safety belt system, most owners gave reasons that are not related to the type of restraint system.

Figure 11

"Which of these five statements that I'm going to read best describe why you decided to buy a car with an automatic safety belt system?"

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Only car available with all the other options I wanted	38%	39%
Only model available for immediate delivery	19	17
Liked the automatic belt	12	23
Gave discount because of the belt system	3	*

(Principal mentions)

Demonstration of Automatic Belt System by Dealer

In Figure 12, 57% of the owners of Chevettes with automatic systems and 72% of owners of Rabbits with these systems reported that a salesperson actually demonstrated the automatic system to them (before, during, or after time of purchase); whereas, 6% of regular Chevette owners and 19% of regular Rabbit owners who knew the automatic system was available cite this occurrence. Of greater significance, however, is the finding that a number of GM and VW dealers did not demonstrate the automatic belt system to purchasers of these models. A few owners of Chevettes (7%) and Rabbits (9%) with automatic systems reported that, while the salesperson did not demonstrate the system, he/she did try to explain the system to them (Figure 13).

Figure 12

Owners Who Reported That Salesperson Demonstrated  
Automatic Features of Safety Belt

Automatic Chevette	_____	57%	
Automatic Rabbit	_____	72%	(s)
Regular Chevette	_	6%	
Regular Rabbit	_____	19%	(s)

(s) = Percentage differences are statistically significant

Figure 13

Owners Who Reported That Salesperson Explained  
(But Did Not Demonstrate) Automatic Features of Safety Belt

Automatic Chevette	_	7%
Automatic Rabbit	_	9%
Regular Chevette	_	4%
Regular Rabbit	_	8%

Attitude of Salesperson Toward Automatic Restraint System

Most GM and VW dealers and their sales personnel do not actively support the concept of an automatic restraint system. 58% of owners of Chevettes with automatic systems and 48% of owners of Rabbits with these systems reported that the salesperson did not express an opinion of the automatic system. The neutral stance taken by many of the dealers/salespeople may be due to their reluctance to voice an opinion of the automatic system that might conflict with any opinions their potential customers might have about the system. Also, 9% of Chevette owners and 2% of Rabbit owners describe the salesperson as having an unfavorable opinion of the system.

The findings indicate a need to communicate to car dealers the virtues of the automatic belt system so that they in turn will become more active supporters of the system.

Figure 14

"When you bought your (Chevette) (Rabbit), would you describe the salesperson's opinion of the automatic safety belt as favorable or unfavorable, or didn't he express an opinion one way or the other?"

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Favorable	24%	40%
Unfavorable	9	2
Neutral	58	48
Don't recall	9	10

### Chapter III

#### Attitudes of Chevette and Rabbit Owners Toward Automatic Restraint Systems

Subject Areas Covered in This Chapter Include:

- Owners' impressions of automatic system at time of purchase compared with their current impressions of the system.
- Owners' preference for automatic versus regular system if purchasing another new car.
- Owners discuss the advantages and disadvantages of automatic restraint systems.



Owners' Impressions of Automatic Seat Belt at Two Points in Time

Asked to compare impressions of the automatic seat belt at two points in time (when first saw belt vs. after having owned the car for a while), owners of the Rabbit were more favorable to the automatic system when first exposed to it than owners of the Chevette (61% vs. 39%) and showed a significantly higher level of satisfaction after owning the car for a period of time. Over the two points in time the favorable vote for the Rabbit's automatic system increased 16 percentage points whereas the favorable vote for the Chevette's automatic system increased 10 percentage points.

Figure 15

"Would you say your reaction was favorable or unfavorable when you first used the automatic safety belt?"

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Favorable	39%	61%
Unfavorable	54	32
No opinion	7	7

Figure 16

"Would you describe your impression of the automatic safety belt as favorable or unfavorable now after having owned the car for a while?"

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Favorable	49%	77%
Unfavorable	44	18
No opinion	7	5

Note: The median length of ownership for both the Chevette and Rabbit with automatic restraint systems was 9 months.

Owners' Preferences for Type of Safety Belt if Purchasing Another New Car

The high level of favor toward automatic restraint systems among Rabbit owners who now have this system appears to carry over to their preference for this type of belt system if they were to purchase another new car. As shown in Figure 17, three out of four owners of automatic Rabbits indicated a preference for this type of restraint system. This figure contrasts with the low rating given to automatic restraint systems by automatic Chevette owners. Only 44% of this group said they would prefer the automatic system if purchasing another new car, while 49% said that they would prefer the manual belt system.

Figure 17

Owners' Preferences for Type of Belt System  
If Purchasing Another New Car

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Prefer automatic	44%	74%
Prefer regular	49	20
Other or no opinion	7	6

Advantages of Automatic Restraint System

Convenience is, by far, the principal advantage of the automatic restraint system in the opinion of users. Chevette and Rabbit owners alike cited this feature most often in response to the question, "What specifically do you like most about your automatic seat belt?" Overall, Rabbit owners had more favorable opinions about the automatic restraint system than did Chevette owners. Rabbit owners mentioned convenience factors (62%), safety aspects (36%), and comfort factors (15%) in response to the question. Only 12% said there is nothing they liked about the automatic seat belt. By comparison, 29% of Chevette owners said there was nothing they liked about their belt system. Those who did feel the automatic belt has advantages cited as reasons the following: convenience factors (45%), safety aspects (31%) and comfort factors (9%).

Figure 18

"What specifically do you like most about your automatic seat belt?"

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Convenience factors	<u>45%</u>	<u>62%</u>
It's automatic	37	50%
Easy to use	9	10
More convenient	3	6
Safety factors	<u>31%</u>	<u>36%</u>
Provides protection	21	23
Forces one to wear belt	13	16
Comfort factors	<u>9%</u>	<u>15%</u>
Comfortable to wear	5	6
Permits freedom of movement	4	9
Nothing	29	12

Disadvantages of Automatic Safety Belt

Asked what they like least about the automatic safety belt, Chevette and Rabbit owners most frequently cited the following: (1) the belt makes entering/exiting the car more difficult; (2) the belt is uncomfortable/fits poorly; (3) belt gets in way; and (4) have problems with the retractor. Chevette owners were much more inclined than Rabbit owners to mention the difficulties they encounter when entering/exiting the car and the fact that the belt gets in their way. A substantial number of Rabbit owners were critical of the interlock system which, of course, was not a problem for Chevette owners.

Figure 19

"What specifically do you like least about your automatic seat belt?"

	<u>Automatic Chevette</u>	<u>Automatic Rabbit</u>
Entering/exiting car	<u>41%</u>	<u>21%</u>
Difficult to get in	27	10
Difficult to get out	25	10
Difficult with packages	14	10
Belt fit poorly	<u>16%</u>	<u>21%</u>
Uncomfortable	7	8
Rubs or cuts neck/throat	5	5
Rubs against shoulder/chest	3	6
Retractor problems	<u>7%</u>	<u>11%</u>
Too much slack	3	3
Too much tension	1	2
Broken	1	4
Other	2	2
Belt gets in way	13%	8%
Problems opening/closing door	7	3
Dislike interlock or warning system	3	14
Restricts movement	5	4
Mounting on door	5	2

## Chapter IV

### Opinions Related to Warning System and Emergency Release Button in Chevettes and Emergency Release Button in Rabbits

Subject Areas Covered in This Chapter Include:

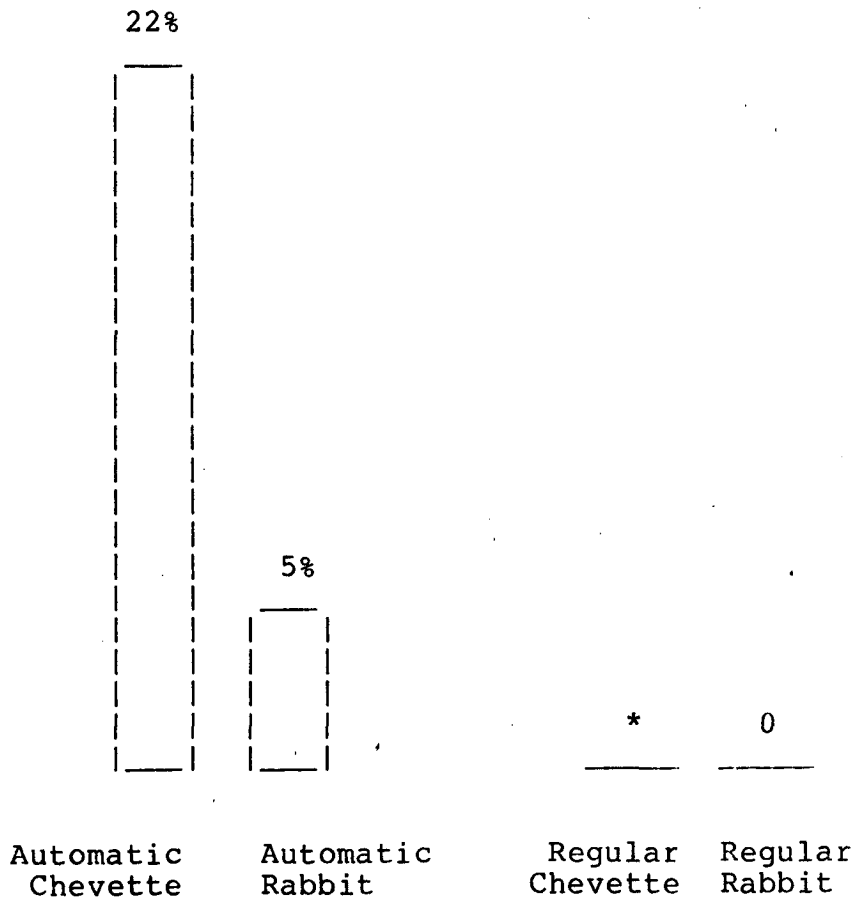
- Status of automatic restraint system at time of interview
- Method used and reasons for disconnecting safety belt
- Use of release button in Chevette
- Defeat of warning system in Chevette
- Preference for only one disconnect buckle in Chevette
- Status of interlock in Rabbit
- Effect on belt usage if Rabbit had no interlock
- Effect on belt usage if Rabbit had no release button

Status of Safety Belt in Automatic Chevettes and Rabbits

More than four times as many Chevette owners (22%) as Rabbit owners (5%) with automatic belt systems reported that the driver's or passenger's safety belt in their car has been cut off or removed, or in some way has been "fixed" so that it can't be used.

Figure 20

% of Cars with Belt Removed



\* Less than 1%.

How Safety Belt Was Disconnected in Automatic Chevetttes

When asked what was done to the belt system so that it can't be used, Chevette owners mentioned most often that the belt was disconnected from the door. Some also say that they cut the belt, stored it under the seat or had the system completely taken out of the car.

Figure 21

How Automatic Belt Was Made Inoperative

	Automatic Chevette
Number of owners	<u>222</u> (22% of owners) <u>100%</u>
Disconnected/unhooked belt from door	65%
Removed belt from car/cut off	19
Other	4
Don't know	12

How Safety Belt Was Disconnected in Automatic Chevetttes

Typical Verbatim Comments

"The belt was disconnected from the door."

"It was unhooked in the center of the car and on the door."

"Unclipped the button on the door."

"I disconnected the belt on the emergency release latch and ignition warning buzzer."

"It was unbolted from the door. It came out of one thing and that disconnected the whole system."

"We unhooked it from the door."

"Unhooked the part that attaches to door."

"Shoulder harness was removed from the door, but the lap belt is still being used."

"I took it to a mechanic and he just disconnected it from the door. We can still use the lap belt."

"I removed the screws from the top of the door and took the straps off."

"We cut the shoulder harness off on the passenger's side."

"Cut it off with scissors."

"I just took a razor blade and cut the stitching in the belt."

"I cut the belt off."

"I cut them off with a razor."

"Cut it off with a razor blade."

"I cut it off and made a regular lap belt."

"It's folded under the seat of our car."

"I buckled it and stored it under the seat."

"The straps were tucked around the seat and the buzzer was disconnected."



## How Safety Belt Was Disconnected in Automatic Rabbit

Rabbit owners who disconnected the automatic belt most often said this was accomplished by placing an object inside the door latch or the buckle to circumvent the interlock system.

Figure 22

### How Automatic Belt Was Made Inoperative

Number of owners	Automatic
	<u>Rabbit</u> 52 (5% of owners) <u>100%</u>
Placed object inside door latch	23%
Disconnected interlock system	17
Disconnected belt (nonspecific)	15
Removed belt from car	13
Dealer disconnected system	13
Don't know	19

### Typical Verbatim Comments

"I put a ball of aluminum foil in the door."

"I put a "thing" in there that I made and it lets me drive the car without wearing the safety belt."

"I put a little plastic thing in the door to override the system."

"A clip was placed inside the latch. It allows you to start the car without the belt in the latch."

"I put aluminum in the door to short out ignition to start the car and stored belt on floor of car."

"Cut the wires in the door."

"Put a wire in receptacle for buckle--now I can start the engine without using the belt."

## Reasons for Disconnecting Safety Belt in Automatic Chevetttes

Comments relating to convenience and comfort factors were cited most often when Chevette owners were asked why they disconnected the automatic safety belt. One of the major reasons given had to do with the difficulty owners have in entering or exiting the car when the belt is connected.

### Typical Verbatim Comments

"It was too hard getting into and out of the car."

"Just getting in and out of the car was more of a bother than it was worth."

"It was a pain to get in and out. You get strangled every time you jump in and out."

"My wife will not ride in the car with the safety belt on. She can hardly get in the car and it messes up her hair and clothes."

"I couldn't stand the trouble of getting in and out."

"I hated the thing--I could hardly get in and out of the car."

"I don't like the confinement and the bother when getting into the car. I think I have the right to decide whether I want a seat belt or not and personally I do not want one."

"When you open the door, there it is--you have to crawl under it."

"You can't get in and out of the car quickly."

"I didn't like climbing under it. You would mess up your clothes with it."

"I take my grandmother almost daily in the car and she cries with frustration because of the belts."

"The shoulder belt felt like it was strangling me."

"My wife drives the car and she said it was too uncomfortable."

"The belt rubs me in the wrong place--I find it very uncomfortable."

## Reasons for Disconnecting Safety Belt in Automatic Rabbits

Rabbit owners, like Chevette owners, who disconnected the automatic safety belt cited reasons that relate to comfort and convenience factors.

### Typical Verbatim Comments

"It was too inconvenient to be hooking and unhooking the belt all the time."

"It was very inconvenient to use--always had to plug in the belt before starting car."

"The belt gets in the way--it's cumbersome."

"Got rid of the belt because it was cutting into me."

"It was too much of a hassle. I just didn't want it on."

"Took it out because of the discomfort and inconvenience."

"The interlock system drives you crazy when you have to get in or out of the car with any frequency."

### Use of Release Button to Disconnect Belt in Chevette

Three out of ten owners (30%) reported that they have used the emergency release button in their Chevette to disconnect the belt (Figure 23, opposite).

Among Chevette owners who said that they have used the release button, a substantial majority (59%) reported that they rarely used the release device. About a fifth (19%) reported that they use it always or almost always; 5% said more than half the time; and 16% said less than half the time (Figure 18). Among nonusers, about 8% said that they use the buckle release to circumvent the system.

When asked to describe what they did with the shoulder harness after the belt had been disconnected, 40% said they kept it across their chest, which offers no protection at all, and 30% report that they place the shoulder harness behind them, which of course will offer very little protection in case of an accident. Fifteen percent of those who have used the release button say that they don't disconnect the belt when they are driving (Figure 23).

Figure 23

"On the lower part of the front door in your Chevette there is a release button which allows you to disconnect the belt in an emergency. Have you ever used this release button to disconnect the belt?"

	<u>Automatic Chevette</u>
Yes, have	30%
No, or don't recall	70

"How often do you use the release button to disconnect the belt, would you say?"

	<u>Automatic Chevette</u>
Total who have used release button	<u>100%</u>
Always or almost always	19%
More than half the time	5
Less than half the time	16
Almost never	59
Don't recall	1

"When you disconnect the belt, do you keep the shoulder belt across your chest or do you place it behind you?"

	<u>Automatic Chevette</u>
Total who have used release button	<u>100%</u>
Across chest	40%
Behind me	30
Don't disconnect when driving	15
Other or not reported	15

Defeat of Warning System in Automatic Chevettes

One out of every ten owners of Chevettes with automatic restraint systems said that the warning system in their car has been disconnected. Certain subgroups of owners were more likely than others in their subgroups to report that the warning system has been disconnected such as, female driver/owners, those who have not attended graduate school, and owners who said that the safety belt is not convenient to use or is uncomfortable to wear.

Figure 24

% Who Reported Warning System Disconnected

	<u>Automatic Chevette</u>	
	<u>Number</u>	<u>Percent</u>
Total Owners	1,002	10%
Male	453	7% (s)
Female	539	12%
High school or less	444	12%
Some college	405	10% (s)
Graduate school	114	3%
Say safety belt is:		
Comfortable	766	8% (s)
Not comfortable	228	17%
Convenient	665	6% (s)
Not convenient	332	18%

(s) = Percentage differences are statistically significant

Automatic Chevette--Preference for One Disconnect Buckle Versus Present System

Chevette owners were fairly evenly divided between those who said that they would have preferred a system that would allow them to disconnect both the lap and shoulder belts with just one buckle (46% ) and those who said that they prefer the present system (43%).

Figure 25

Chevette Owner Preference for Release of Automatic Shoulder and Lap Belt

Prefer Release of Both Belts		46%
Prefer Present System		43%

Owners who did not use the automatic belt on their last trip preferred the one buckle over the present system by a margin of two to one (56% vs. 25%). Among those who said the automatic belt is not comfortable or not convenient, preference for one buckle over the present system was more than three to one (61% vs. 18%) and (66% vs. 15%). These findings suggest that overall belt usage might have been lower than that previously reported, had a one buckle device been installed in 1980 model Chevetttes, the rationale being that it would have made it easier for those who say the belt is uncomfortable or inconvenient to disconnect the belt system.

Figure 26

Preference

	One Buckle	Present System
Total Chevette Owners	46%	43%
Used belt on last trip	41%	50%
Did not use belt	56%	25%
Said automatic belt is:		
Comfortable	41%	50%
Not comfortable	61%	18%
Convenient	35%	57%
Not convenient	66%	15%

(other and no opinion omitted)

Status of Interlock in Automatic Rabbit

About one out of every ten owners of Rabbits with automatic restraint systems said that the interlock system in their car has been disconnected. Owners who said that the automatic belt system in their Rabbit is uncomfortable to wear or who said it is not convenient to use were much more likely than any other subgroup to report that the interlock system has been disconnected.

Figure 27

Owners Who Say Interlock System has been Disconnected

	<u>Automatic Rabbit</u>		
	<u>Number</u>	<u>Percent</u>	
Total Owners	1,002	9%	
Say safety belt is:			
Comfortable	888	7%	(s)
Not comfortable	121	17%	
Convenient	915	8%	(s)
Not convenient	94	19%	

(s) = Percentage differences are statistically significant





Automatic Rabbit-Use of Safety Belt If Release Button Removed

As with the interlock system, removal of the emergency release button in Rabbits with automatic systems would have a negative impact on belt usage. About one in four owners (23%) say that if there was no release button for the safety belt, they would have it disconnected or removed from the car.

Figure 29

"What would you do if there was no release button for the safety belt in your Rabbit? Would you-

	<u>Automatic Rabbit</u>
Wear belt anyway	37%
Be concerned, but wear belt anyway	33
Have belt disconnected or removed from car	23
Not buy a Rabbit	1
Other or no opinion	6

### Malfunction/Failure with Automatic Belt System

Among Chevette owners, 18% reported that they experienced a malfunction or failure with the automatic belt system. Another 3% reported that they had a malfunction with the warning system --2% mentioned a defective warning light and 1% mentioned a defective warning buzzer.

Major problems with the automatic belt in the Chevette mentioned by owners who experienced a problem were:

- Belt does not retract properly or fast enough
- Defective parts
- Not enough tension on belt

Among Rabbit owners, 8% reported that they had experienced a malfunction or failure with the automatic belt system. Another 11% reported that they had either had a defective starter interlock or a defective warning light or buzzer.

Major problems with the automatic belt in the Rabbit mentioned by owners who experienced a problem were:

- Belt does not retract properly or fast enough
- Not enough tension on belt
- Belt tugs on door -- makes door difficult to open

## Chapter V

### Comfort and Convenience Ratings

Subject Areas Covered in This Chapter Include:

- Overall comfort and convenience ratings for Rabbits and Chevetttes with automatic safety belts and Rabbits and Chevetttes with regular safety belts
- Ten specific problem areas with automatic safety belts examined to identify various comfort and convenience issues
- Factor analysis of ten problem areas
- Chi-square tests applied to problem areas
- Problem areas that are highly correlated with use of automatic safety belts

Overall Comfort Ratings

Each respondent reported on the comfort of his/her seat belt system. Figure 30 shows the results for each type of owner surveyed. Rabbit owners reported higher comfort ratings, overall, than did Chevette owners. By grouping together both those owners who found their seat belt systems "comfortable to wear" and those who found their systems "reasonably comfortable," Rabbit owners with automatic systems (88%, in total) find their system significantly more comfortable than Rabbit owners with regular systems, or either of the two Chevette owner groups surveyed. Chi-square tests show Rabbit owners to be better satisfied with their system's comfort than other owners surveyed (at a 99% confidence level).

Figure 30

"How about the comfort of the safety belt system?  
Would you say it is . . .?"

	<u>Automatic</u>		<u>Regular</u>	
	<u>Chevette</u>	<u>Rabbit</u>	<u>Chevette</u>	<u>Rabbit</u>
1. Comfortable to wear	45%	52%	32%	42%
2. Reasonably comfortable	31	36	35	38
3. Not comfortable	23	12	24	17
4. Not reported	1	*	9	3

\*Less than 1%

Overall Convenience Rating

As with comfort, all owners surveyed were asked to rate their systems' convenience. Figure 31 presents summary results reported by owners to this question. When those owners who reported their seat belt system "convenient to use" are combined with those who reported their system to be "reasonably convenient," more Rabbit owners than Chevette owners described their seatbelt systems as convenient. While there was no significant difference between the convenience ratings given by Rabbit owners with automatic systems (91%) and Rabbit owners with regular systems (87%), their convenience ratings were significantly higher than either Chevette owners with automatic systems (66%) or Chevette owners with regular systems (75%). Significantly greater numbers of Chevette owners with automatic systems found their seat belt system "not convenient to use" than did other owners surveyed.

Figure 31

"In general, would you say that your seat belt system is . . .?"

	<u>Automatic</u>		<u>Regular</u>	
	<u>Chevette</u>	<u>Rabbit</u>	<u>Chevette</u>	<u>Rabbit</u>
1. Convenient to use	36%	64%	50%	48%
2. Reasonably convenient	30	27	25	39
3. Not convenient to use	33	9	19	11
4. Not reported	1	0	6	2

### Problems with Automatic Seat Belt Systems

Ten specific problems with seat belts were examined to identify specific comfort and convenience issues which might affect usage (Questions 45 through 54). Figure 32 presents summary findings for each problem area. In all cases but one (Q. 48), a higher proportion of Chevette owners reported their automatic system to cause them a problem than did Rabbit owners. In one specific instance (Q. 49), nearly twice as many Chevette owners with automatic systems (66%) found their system interfered with getting into or out of their car as did Rabbit owners with similar systems (37%). This problem was cited most frequently by both Chevette and Rabbit owners.

Also, many more Chevette owners than Rabbit owners complained about the belts resting on or rubbing across their face or neck (Q. 46) and that the upper mounting of the shoulder belt comes too close to their face or head (Q. 54).

### 2-Door Versus 4-Door

Owners of 2-door Rabbits were more likely than owners of 4-door Rabbits to mention the following problems:

- Interferes when reaching for glovebox/dashboard;
- Belt resting on or rubbing across face/neck;
- Exerting too much pressure on shoulder/chest; and
- Chafing or rubbing across chest.

In response to the ten specific problems, no significant differences were apparent between owners of 2-door and 4-door Chevettes.

Figure 32

	Automatic <u>Chevette</u>		Automatic <u>Rabbit</u>	
	Problem	No Problem	Problem	No Problem
<u>Q 45</u> The safety belt interferes when reaching for the glove compartment or any of the controls on the dashboard...	21%	76%	13%	86%
<u>Q 46</u> The belt resting on or rubbing across your face or neck...	40	58	24	75
<u>Q 47</u> The way the belt crosses your chest...	28	70	25	74
<u>Q 48</u> The belt exerting too much pressure on your shoulder or chest...	14	84	14	85
<u>Q 49</u> The belt system interfering with your getting <u>into</u> , or <u>out of</u> the car...	66	33	37	62
<u>Q 50</u> The dashboard or any part of it interfering with your getting <u>into</u> or <u>out of</u> the car...	7	90	5	93
<u>Q 51</u> The belt chafing or rubbing across your chest or some other part of the body...	32	66	25	74
<u>Q 52</u> The belt causing jewelry, clothing, or other items worn to be damaged, broken, or lost...	18	79	13	86
<u>Q 53</u> The upper mounting of the shoulder belt interferes with vision out the side of the car...	10	86	5	93
<u>Q 54</u> The upper mounting of the shoulder belt comes too close to your face or head..	21	76	8	90



### Factor Analysis of Problem Areas

The purpose of factor analysis is to "group" independent variables which appear to relate to an unknown independent variable. While the statistical model for factor analysis is rigorous, results must be used in a descriptive manner to assist in understanding study findings.

To determine whether there may have been some significant inter-relationship between the responses given to these questions regarding problems, a factor analysis was carried out for Rabbit and Chevette samples combined. The results of this analysis are presented in Figure 33. Among owners with these automatic seat belts, responses to questions 51, 46, and 47 all relate to problems with positioning of the chest belt (FACTOR 1). The phrase "positioning of the chest belt" is used to characterize this factor in the discussion. Whether or not the problem grouped under this rubric is precisely "positioning" would be open to interpretation. Yet among both Chevette and Rabbit owners, while the entry/exit problem was most frequently cited, the combined complaints of owners about chest belt positioning appear more significant. We will explore why this is the case on the next page.

A second, less focused underlying problem was identified in the factor analysis -- the location of the upper mounting (Questions 53 and 54). However, few owners reported this to be a problem.

FIGURE 33

FACTOR ANALYSIS FOR RABBIT AND CHEVETTE SAMPLES COMBINED

QUESTION	PROBLEM	FACTOR 1	FACTOR 2
45	BELT INTERFERES WITH REACH	0.272	0.372
46	BELT ON FACE OR NECK IS A PROBLEM	0.558	
47	BELT CROSSING CHEST IS A PROBLEM	0.536	
48	BELT EXERTS TOO MUCH PRESSURE	0.399	
49	BELT INTERFERES WITH ENTRY/EXIT		0.315
50	DASHBOARD INTERFERES WITH ENTRY/EXIT		0.295
51	BELT CHAFES OR RUBS ACROSS CHEST	0.800	
52	BELT DAMAGES CLOTHING/JEWELRY		
53	UPPER MOUNTING INTERFERES WITH VISION		0.590
54	UPPER MOUNTING TOO CLOSE TO FACE/HEAD	0.355	0.454

---

FACTOR 1

QUESTION	PROBLEM	LOADING
51	BELT CHAFES OR RUBS ACROSS CHEST	0.800
46	BELT ON FACE OR NECK IS A PROBLEM	0.558
47	BELT CROSSING CHEST IS A PROBLEM	0.536
48	BELT EXERTS TOO MUCH PRESSURE	0.399
53	UPPER MOUNTING TOO CLOSE TO FACE/HEAD	0.355
54	BELT INTERFERES WITH REACH	0.272

---

FACTOR 2

QUESTION	PROBLEM	LOADING
53	UPPER MOUNTING INTERFERES WITH VISION	0.590
54	UPPER MOUNTING TOO CLOSE TO FACE/HEAD	0.454
45	BELT INTERFERES WITH REACH	0.372
49	BELT INTERFERES WITH ENTRY/EXIT	0.315
50	DASHBOARD INTERFERES WITH ENTRY/EXIT	0.295

## Use Versus Problems

### -Chi-Square Tests-

In question 18 owners were asked to recall whether the safety belt in their car was used on their last trip. Responses to this question were taken to provide the best estimate of whether the owner was currently using the automatic system. Specific responses to this question are reported elsewhere, but here we will examine the results of a comparison made of responses to this question with those to questions 45 through 54. Chi-square tests were performed to make this comparison.

The purpose of chi-square tests is to determine whether, and the extent to which, two independent samples (in our case Chevette and Rabbit owners with automatic seat belts) correlate with respect to some characteristic (in our case responses to selected matched questions). If the chi-square value exceeds 3.84, there is a significant correlation between the samples. The higher the chi-square value, the greater the correlation, so that data between Chevette and Rabbit owners' responses to selected questions can be rank-ordered.

Figure 34 presents these results, and shows that four problems are highly correlated with use or nonuse of automatic seat belts among Chevette owners:

- o Belt interferes with reach (Q 45),
- o Belt crossing chest is a problem (Q 47),
- o Belt interferes with entry/exit (Q 49), and
- o Upper mounting too close to face/head (Q 54).

Two of these four, belt interferes with reach (Q 45) and belt crossing chest is a problem (Q 47), are also highly correlated with low belt use among Rabbit owners along with one other, Q 46, belt on face or neck.

Figure 34

Comparison of Chevette and Rabbit Owners'  
Reported Use to Problems Cited

<u>Q</u>	<u>Problem</u>	<u>Chevette</u> <u>Chi-Square</u>	<u>Rabbit</u> <u>Chi-Square</u>
45	Belt Interferes with Reach...	53	37
46	Belt on Face or Neck is a Problem...	21	40
47	Belt Crossing Chest is a Problem...	53	40
48	Belt Exerts Too Much Pressure...	33	22
49	Belt Interferes with Entry/Exit...	53	7
50	Dashboard Interferes with Entry/Exit...	26	0.6
51	Belt Chafes or Rubs Across Chest...	30	29
52	Belt Damages Clothing/Jewelry...	0.2	3
53	Upper Mounting Interferes with Vision...	41	23
54	Upper Mounting Too Close to Face/Head..	50	24

Figure 35 is drawn from Figures 32 and 34. It presents a combined summary of the results of chi-square tests along with the percent of owners who cited various problems. We see that three frequently cited problems for Chevette owners (Q46, Q47, and Q49) are also those which are most closely associated with not using the automatic system. For Rabbit owners, Q46 and Q47 are two frequently cited problems that are also associated with not using the system. This leads us to conclude that both Chevette and Rabbit owners are agreed regarding problems with the automatic seat belt systems. Entry/Exit (Q49) and problems with the positioning of the chest belt (Q51, Q46, and Q47), rank highest among complaints; and lead most frequently to nonuse of the system.

Figure 35

Comparisons of Chevette and Rabbit Owners'  
Responses to Key Problem Areas

Q	Problem	Chevette		Rabbit	
		Chi-Square	% Citing Problem	Chi-Square	% Citing Problem
45	Belt Interferes with Reach...	53	21	37	13
46	Belt on Face or Neck...	21	40	40	24
47	Belt Crossing Chest...	53	28	41	25
49	Belt Interferes with Entry/Exit...	53	66	7	37
54	Upper Mounting Too Close to Face/Head...	50	21	24	8

VI

Owner Characteristics

Comparisons are made between owners of Chevettes with automatic restraint systems and owners of Rabbits with these systems on responses to questions pertaining to major demographic factors and seat belt use.

### Owner Characteristics

As in the previous study, our analysis includes owner demographics which allow us to determine if the owners of Rabbits with automatic restraint systems had different characteristics from Chevette owners with these systems and which of these differences, if any, account for belt usage within each group of owners. We sought specifically to document a relationship between belt usage and factors of age, education, and family income. If age, education, or income was found to influence automatic safety belt acceptance and usage, these factors could be used to "the best advantage" in any media or public educational efforts to gain acceptance of these systems.

For each factor, there is a chart showing a specific demographic breakdown of Rabbit and Chevette owners. In turn, we measured age, education, and income against safety belt usage as determined by the percentage of respondents who reported that they wore the safety belt the last time they drove their Chevette or Rabbit. The objective is to determine if a particular demographic pattern correlates to a high or low response of belt usage.

### Age

Figure 36 indicates a fairly comparable age pattern between Rabbit and Chevette owners of cars with automatic belt systems. There are, however, ten percent more Chevette owners than Rabbit owners in the under 30 years age group.

When we move from age patterns to an age breakdown of belt usage, as shown in Figure 37, we see that Rabbit owners in all age categories, who claimed to use their automatic safety belts the last time they drove, rank close to or above the 90 percentile. These responses exceed those of Chevette owners in the same categories by 14% in the under 30 age group to 23% in the 30 - 49 age group.

For both Chevette and Rabbit owners the percentages in each age group who reported belt usage are quite similar, which suggests that age is not a good predictor of belt usage.



Figure 36

"In which of these age groups are you?"

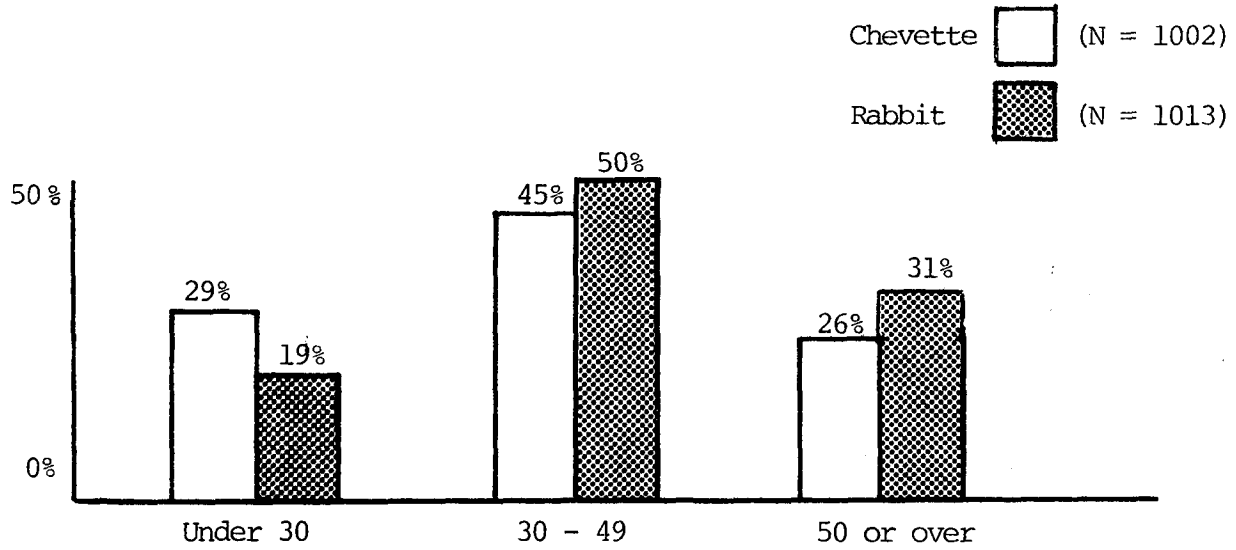
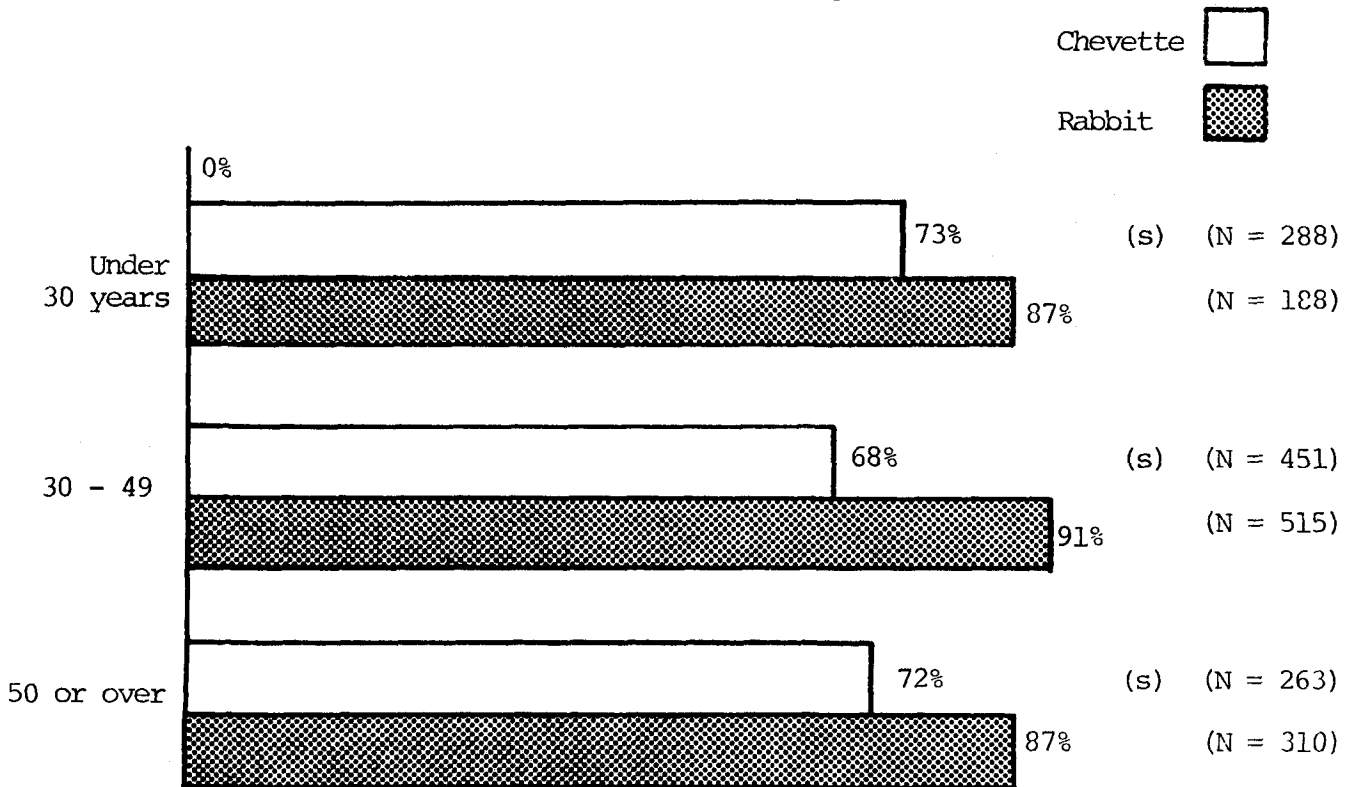


Figure 37

Reported Belt Usage



### Education

Rabbit owners, percentage-wise, have higher levels of educational attainment than their counterparts with Chevettes.

As shown in Figure 38, 44% of Chevette owners as compared with only 27% of Rabbit owners reported that they had not gone beyond high school. Also, almost twice the number of Rabbit as Chevette owners (19% vs. 11%) reported that they had attended a graduate school.

Figure 39 shows the correlation between education and belt use. Note that reported belt use increases as one progresses to higher levels of schooling. Even among Rabbit owners there is a ten percent increase in reported belt use for those who have attended college, as compared to those who have not gone beyond high school.

Among the three major demographic groups reported in this chapter, the respondents' education level is the best predictor of safety belt use.

Figure 38

Last Year of Regular Schooling

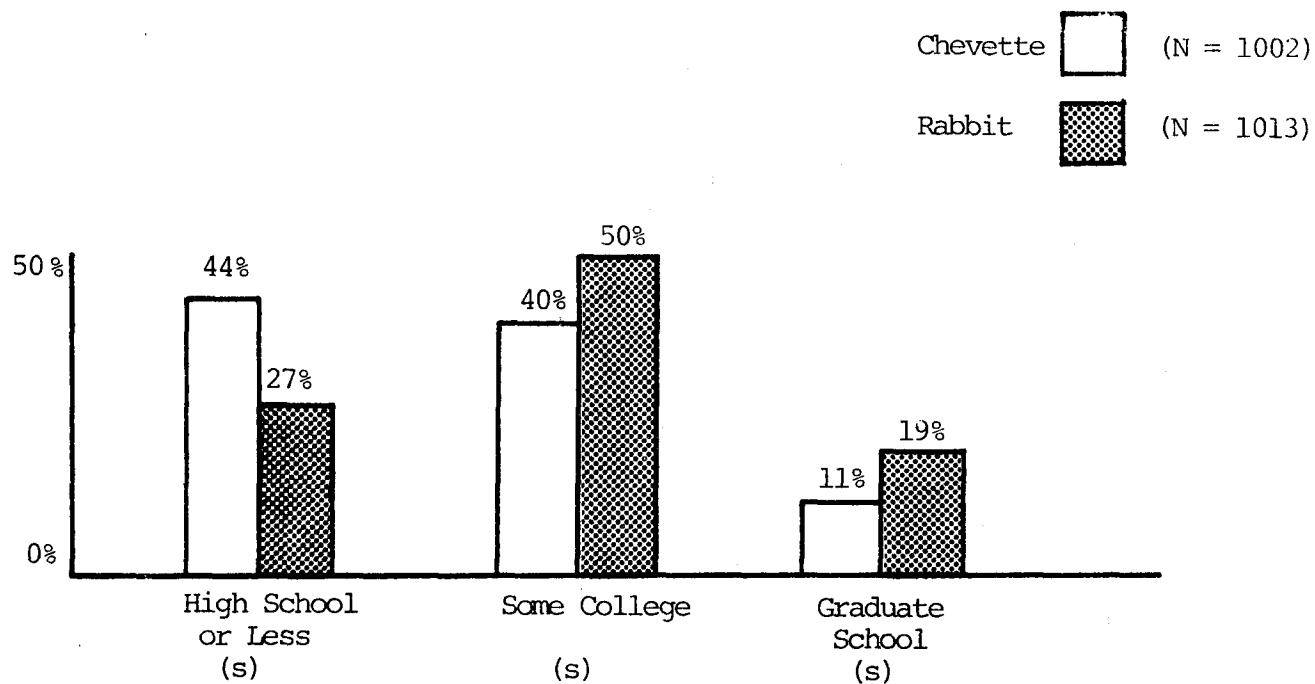
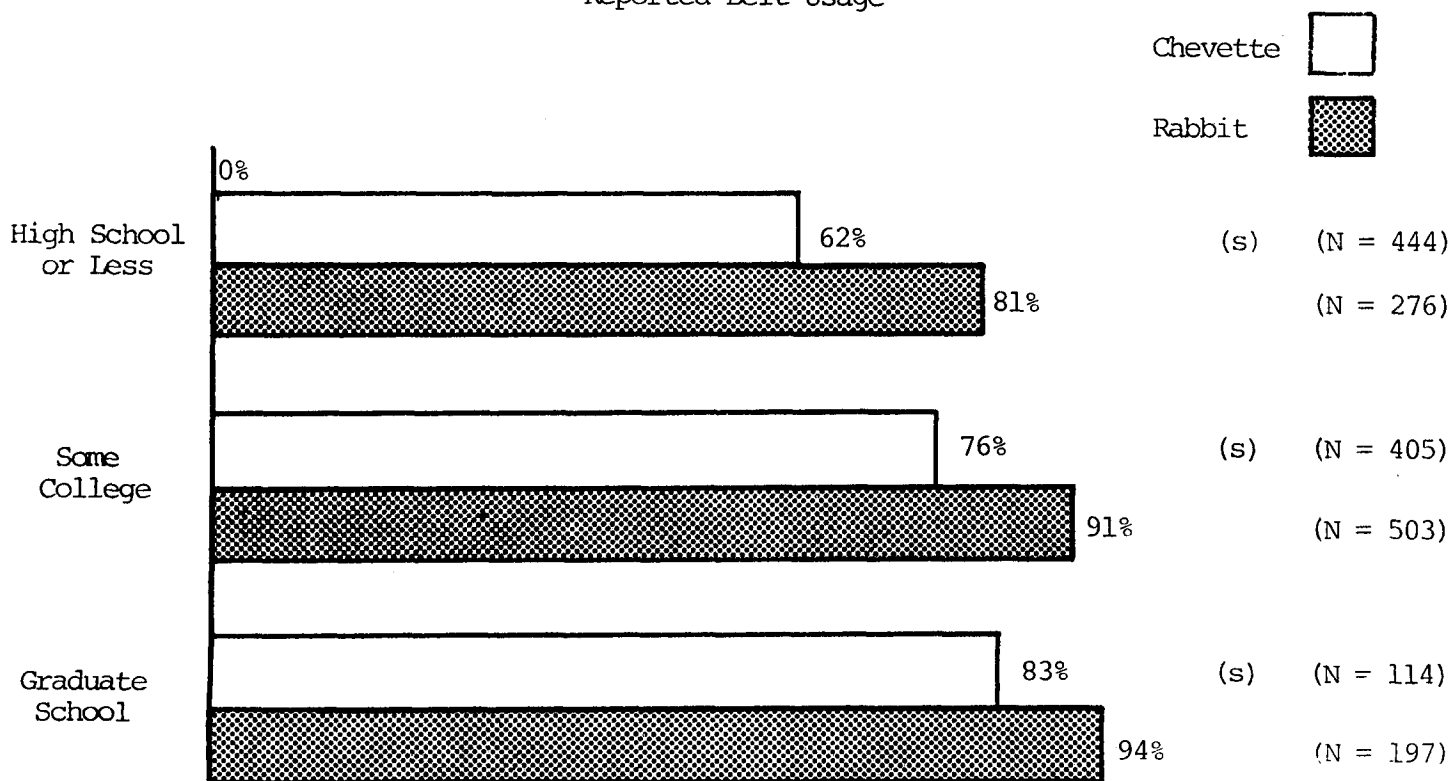


Figure 39

Reported Belt Usage



### Income

Income supports a similar pattern to schooling. Figure 40 shows that Rabbit owners as a group have higher annual incomes than do Chevette owners. Thirty-nine percent of Rabbit owners reported an annual family income, before taxes, of \$30,000 or more, compared to twenty-one percent of Chevette owners who reported this level of income. Chevette owners show higher percentages than Rabbit owners at the lower end of the income scale. Twenty-four percent of Chevette owners, as compared with nine percent of Rabbit owners, reported an income of under \$15,000.

Like education, more income tends to support greater safety belt use, although the pattern is not as clear-cut as with education. Among both Chevette and Rabbit owners, the major difference in reported belt use occurred between those with incomes of \$30,000 or more and those with incomes of \$30,000 or less. This indicates that while there is a correlation between education and income, the education factor is a better predictor of belt use than is income factor.

Figure 40

Family Income Before Taxes for the Last Year

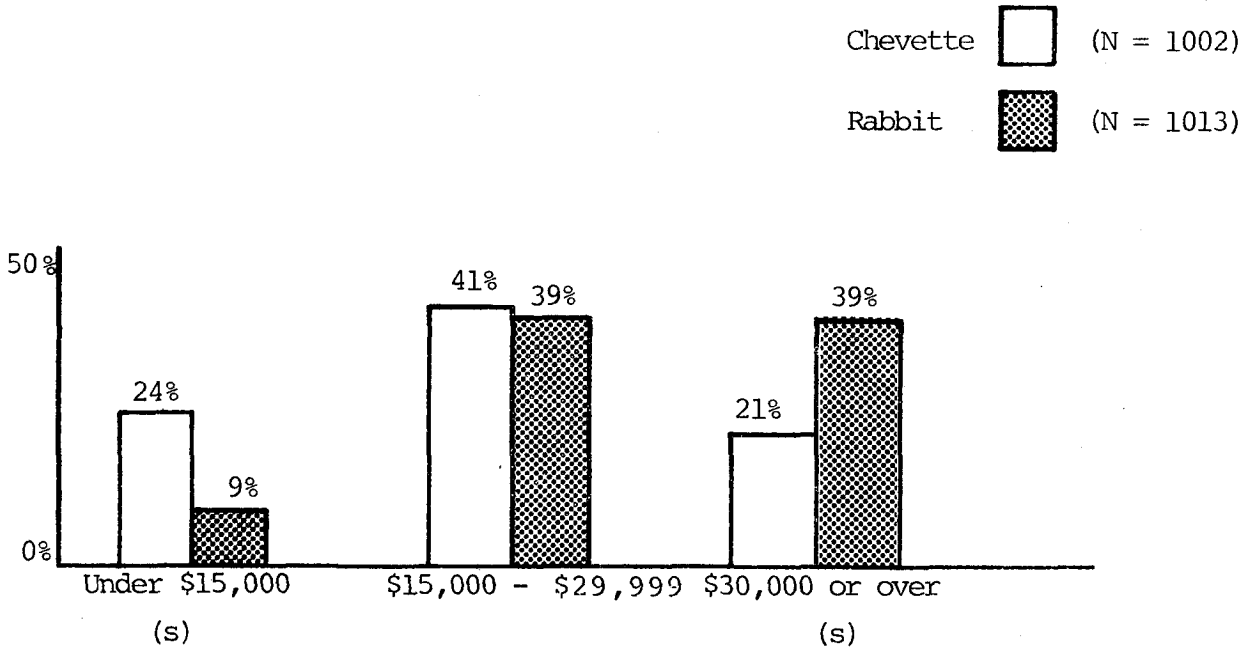
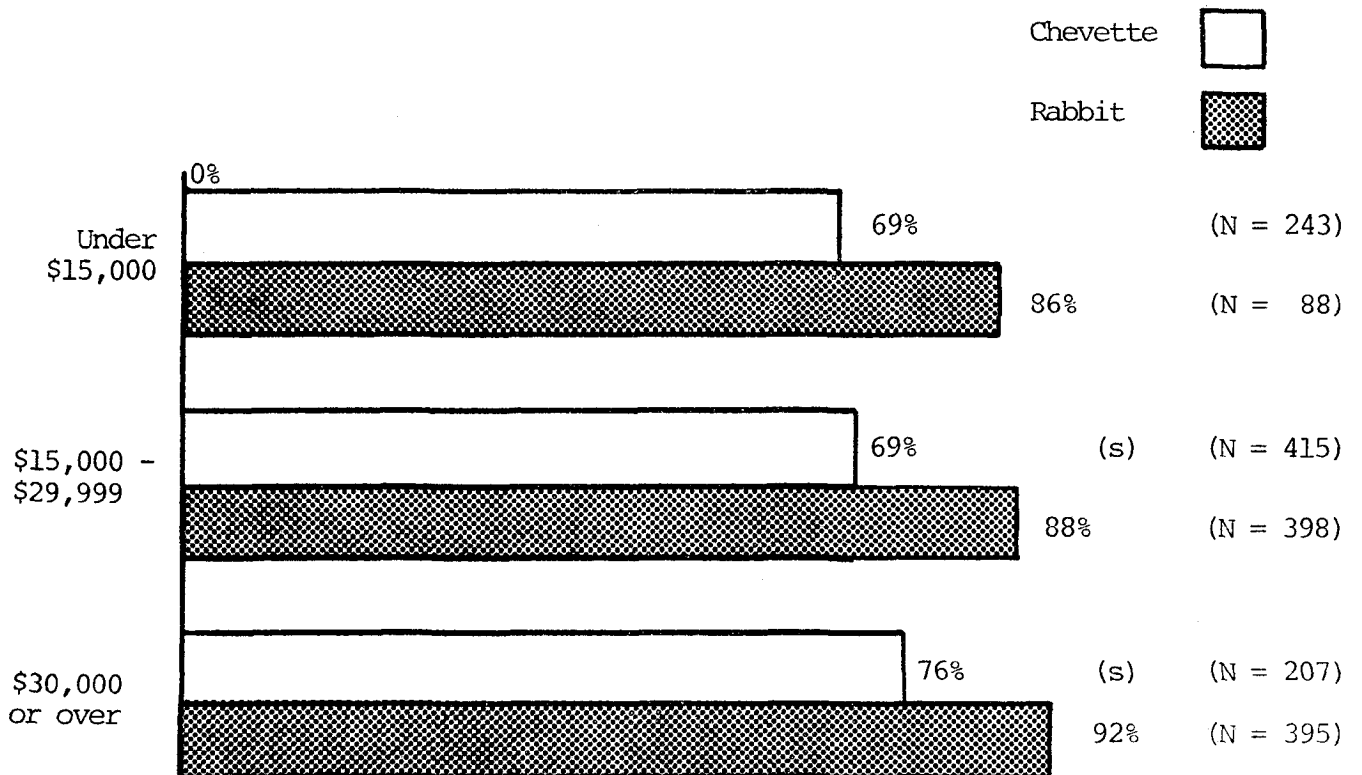


Figure 41

Reported Belt Usage



## Conclusions

### Use of Automatic Restraint Systems versus Owner Demographics

This study shows a significant difference in reported belt use by Rabbit owners (89%) and Chevette owners (70%). Is any part of the 19% difference in belt use due to the fact that Rabbit owners as a group are better educated and have higher family incomes than do Chevette owners? The answer is negative. We conclude that the difference in reported belt use must be accounted for by factors other than the ones related to education, income or any other demographic.

An analysis of covariance was conducted to determine the extent to which the owner characteristics of age, sex, education, and income affected reported usage in addition to type of car (Chevette or Rabbit). Reported usage was modeled as the dependent variable, and age, sex, income, and education (as well as the interactions between these variables) were modeled as independent variables.

Results of this analysis demonstrated that the only independent variable in addition to type of car with any significant predictive power is education. None of the other independent variables, nor their interactions (even when interacting with education), contributed significantly to explaining usage differences between Chevette and Rabbit owners.

Furthermore, within education groups, usage levels of Rabbit owners is consistently higher than among Chevette owners. That is, the proportion of Rabbit owners using seatbelts as compared to Chevette owners at each educational level remains constant. Therefore, the analysis shows that education only affects the level of usage, not the difference between Rabbit and Chevette owner usage.

OPINION RESEARCH CORPORATION  
CHEVETTE, RABBIT, TOYOTA AUTOMATIC BELT SYSTEM

TELEPHONE: ( ) \_\_\_\_\_  
Area Code

TIME ENDED: \_\_\_\_\_

ZIP CODE: \_\_\_\_\_

TIME STARTED: \_\_\_\_\_

- SAMPLE: 1 CHEVETTE  
2 RABBIT (DELUXE)  
3 RABBIT (CUSTOM)  
4 TOYOTA

LENGTH OF INTERVIEW: \_\_\_\_\_ (MINUTES)

DATE: \_\_\_\_\_

INTERVIEWER: \_\_\_\_\_ ID#: \_\_\_\_\_

Hello, I from Opinion Research Corporation, in Princeton, New Jersey. We are conducting a survey for the U.S. Department of Transportation. This study is authorized by Public Law 89-563, Section 106. While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate and timely. In addition, your responses will be kept completely confidential and will never be identified with you.

According to our records, you or someone else in your family bought a new \_\_\_\_\_ within the last year or so. Is that correct?

- 1 YES → CONTINUE  
2 NO → TERMINATE

1. I would like to talk to someone who drives this car and also went to visit the dealer to pick out the \_\_\_\_\_.

Do you now drive this car and were you at the dealer's when the car was purchased, or should I talk to someone else in your household?

1 RESPONDENT QUALIFIES → CONTINUE

2 OTHER PERSON → ASK TO SPEAK TO OTHER PERSON  
OR ARRANGE FOR CALLBACK

NAME OF OTHER PERSON \_\_\_\_\_

INTERVIEWER: Reintroduce yourself if necessary, and explain that you're aware the person recently purchased a new (MAKE OF CAR).

2. We are interested in your reactions to the safety belt in your \_\_\_\_\_. Does it have a regular type seat belt that you need to buckle yourself or do you have one where the belt is attached to the door and automatically operates so that you do not have to buckle it.
- 1 Have regular belt (TERMINATE)  
2 Have automatic belt

3. I'd like you to think back to when you visited the dealer's showroom and purchased your \_\_\_\_\_. Did you inspect any other models in the showroom before you made up your mind to buy the model you now have?
- 1 Inspected others → (GO TO Q. 6)  
2 No, did not

(IF "NO, DID NOT" ON Q. 3, ASK:)

4. Did you know pretty much what you wanted and just ordered the car?
- 1 Yes, just ordered  
2 Other \_\_\_\_\_

5. At that time did you know that you were ordering a car with an automatic safety belt system?
- 1 Yes, I knew  GO  
2 No, didn't know  TO  
0 Don't recall  Q. 9

(IF "INSPECTED OTHER MODELS" ON Q. 3, ASK:)

6. When you looked at the other models did you see any with automatic safety belts?
- 1 Yes  
2 No, did not  GO TO  
0 Don't recall  Q. 9

7. Did you get into any of the other models and try on the automatic safety belt or sit in the seat with the belt across you?
- 1 Yes, tried belt  
2 No, did not  GO TO  
0 Don't recall  Q. 9

8. What was your impression of the automatic safety belt at that time, would you say it was favorable, unfavorable, or didn't you have much impression one way or the other?
- 1 Favorable  
2 Unfavorable  
3 Neutral  
0 No opinion



9. When you bought your \_\_\_\_\_ would you describe the salesperson's opinion of the automatic safety belt as favorable or unfavorable or didn't he express an opinion one way or the other?
- 1 Favorable  
2 Unfavorable  
3 Neutral  
0 Don't recall
10. Did the salesperson actually demonstrate how to use the automatic belt, that is, did he get in the car to show you how it operates or have you or someone with you get in the car with the belt on?
- 1 Yes, demonstrated  
2 No, did not  
0 Don't recall

(IF "NO, DID NOT" OR "DON'T RECALL" ON Q. 10, ASK:)

11. Did the salesperson discuss or explain the automatic safety belt system to you?
- 1 Yes, did  
2 No, did not  
0 Don't recall
12. I'm going to read four different ways that you might have first heard of or became aware of the automatic safety belt system. After I've read the four statements, please tell me which way best describes how you first became aware of it?
- 1 At the dealer where you bought the car
- 2 In the same model car, owned by someone else
- 3 Through advertising (Would that be:  
1 TV 2 Radio 3 Print)
- 4 Word of mouth--someone told you about it
- 5 Some other way (Specify: \_\_\_\_\_)

13. Now, which of these five statements that I'm going to read best describe why you decided to buy a car with an automatic safety belt system. Please don't answer until I've read all five statements.

- 1 I liked the automatic belt
- 2 I got a discount on the price of the car because of the belt system
- 3 It was the only car the dealer had available with all the other options I wanted
- 4 It was the only model dealer had for immediate purchase or delivery
- 5 I didn't know I was buying a car with an automatic belt
- 6 Some other reason (Specify: \_\_\_\_\_)

14. Did you specifically ask for or request an automatic belt system when you bought your \_\_\_\_\_? 1 Yes  
2 No

("IF "YES" ON Q. 14, ASK Q. 15)

15. Why did you want an automatic belt system?

- 1 General safety reasons
- 2 Convenience--no need to buckle-up
- 3 To protect others in car
- 4 Other (Specify: \_\_\_\_\_)

16. About how many months have you owned your \_\_\_\_\_? \_\_\_\_\_ months

17. What kind of trip did you take the last time you drove your \_\_\_\_\_, was it a short drive, less than 25 miles round trip or was it a longer drive, more than 25 miles round trip?
- 1 Short trip  
2 Longer trip  
0 Don't recall
18. Try to recall that last trip and tell me as accurately as you can if you did or did not wear the safety belt in your \_\_\_\_\_.
- 1 Did wear belt  
2 Did not  
3 Other \_\_\_\_\_  
0 Don't recall
19. Now, think back to the last trip you drove a car that did not have an automatic safety belt. Was that round trip shorter or longer than 25 miles?
- 1 Shorter  
2 Longer  
0 Don't recall
20. For that specific trip, tell me as accurately as you can if you did or did not wear the safety belt-- that is, one that you have to buckle yourself.
- 1 Did wear belt  
2 Did not  
3 Other \_\_\_\_\_  
0 Don't recall
21. Thinking back to the first time you used the automatic safety belt in your \_\_\_\_\_, would you say your impression of it was favorable or unfavorable?
- 1 Favorable  
2 Unfavorable  
3 Neutral  
0 No opinion
22. Would you describe your impression of the automatic seat belt as favorable or unfavorable now after having owned the car for awhile?
- 1 Favorable  
2 Unfavorable  
3 Neutral  
0 No opinion
23. What specifically do you like most about your automatic seat belt?

24. What specifically do you like least about your automatic seat belt?

25. If you were to purchase another new car and the model you wanted was available either with the automatic seat belt or the regular type of seat belt, which belt system would you choose? (Assume no difference in cost)
- 1 Automatic  
2 Regular  
3 Other: \_\_\_\_\_  
0 No opinion

26. Has either the driver's or passenger's safety belt in your \_\_\_\_\_ been cut off or removed or in some way been fixed so that it can't be used?
- 1 Yes, has  
2 No, has not

(IF "YES, HAS" ON Q. 26, ASK:)

27. What specifically was done to the belt system so that it can't be used?

28. Can you tell me why this was done?

ASK OF CHEVETTE OWNERS ONLY

29. As you know, the automatic belt system in your Chevette is connected to a warning system that turns on a buzzer and a light to remind you to wear the belt if the belt is not buckled. Has this warning system in your Chevette been disconnected, or not?
- 1 Yes, disconnected  
2 No, not disconnected

30. On the lower part of the front door in your Chevette there is a release button which allows you to disconnect the belt in an emergency. Have ever used this release button to disconnect the belt?
- 1 Yes, have  
2 No, have not  
0 Don't recall

(IF "YES, HAVE" ON Q. 30, ASK:)

31. How often do you use the release button to disconnect the belt, would you say:
- 1 Always or almost always  
2 More than half the time  
3 Less than half the time  
4 Almost never or never

32. When you disconnect the belt, do you keep the shoulder belt across your chest or do you place it behind you?
- 1 Across chest  
2 Behind me  
3 Other \_\_\_\_\_

33. In your Chevette, would you have preferred an automatic belt system that would allow you to disconnect both the lap and shoulder belts with just one buckle, or do you prefer the system the way it is now?
- 1 Prefer one buckle  
2 Prefer present system  
3 Other \_\_\_\_\_

(NOW GO TO Q. 39)

ASK OF RABBIT OWNERS ONLY

34. As you know, the automatic belt system in your Rabbit is connected to an interlock which is designed to prevent starting of the engine if the belt is not buckled. Has the interlock in your Rabbit been disconnected?
- 1 Yes, has  
2 No, has not
35. In your Rabbit, if there was no interlock connected to the buckle, would you use the safety belt, probably not use the belt, or never use the belt?
- 1 Use belt  
2 Probably not use belt  
3 Never use belt  
4 Don't use now
36. What would you do if there was no release button for the safety belt in your Rabbit. Would you--
- 1 Wear the belt anyway and not be concerned about it  
2 Be somewhat upset or concerned, but wear the belt anyway  
3 Have the safety belt disconnected or removed from the car  
4 Other \_\_\_\_\_

(NOW GO TO Q. 39)

ASK OF TOYOTA OWNERS ONLY

37. As you know, the automatic belt system in your Toyota is connected to an interlock which is designed to prevent starting of the engine if the belt is not buckled. Has the interlock in your Toyota been disconnected?
- 1 Yes, has  
2 No, has not
38. In your Toyota, would you have preferred an automatic safety belt system that came with a buckle release so that you could disconnect the belt system from the door?
- 1 Yes, would prefer  
2 No, would not  
3 Other \_\_\_\_\_

(NOW GO TO Q. 39)

ASK EVERYONE

39. If you don't want to use the automatic lap/shoulder belt in your new car, what do you do to the belt so that you don't have to use it? PROBE FOR SPECIFICS

40. Have you had any problems, that is, malfunctions or mechanical failures with any part of the automatic safety belt system?

- 1 Yes  
2 No

(IF "YES" ON Q. 40, ASK:)

41. Has the problem been with the belt system or has it been with the warning or interlock system?

- 1 Belt system  
2 Warning/interlock

42. Please describe this problem?

43. In general, would you say that your automatic belt system is:

- 1 Convenient to use  
2 Reasonably convenient  
3 Not convenient to use

44. How about the comfort of the automatic belt system. Would you say it is:

- 1 Comfortable to wear  
2 Reasonably comfortable  
3 Not comfortable

We would like your opinion on some specific points related to the comfort and convenience aspects of the safety belt in your \_\_\_\_\_ when you are wearing the belt. For each one I mention, please tell me if you consider it a problem, or not a problem.

45. The safety belt interferes when reaching for the glove compartment or any of the controls on the dashboard, would you say that is a problem for you, or not?

- 1 Problem  
2 No problem  
0 No opinion

46. The belt resting on or rubbing across your face or neck--is that a problem for you, or not?

- 1 Problem  
2 No problem  
0 No opinion

47. The way the belt crosses your chest--is that a problem for you, or not?

- 1 Problem  
2 No problem  
0 No opinion

- 48. The belt exerting too much pressure on your shoulder or chest--is that a problem, or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 49. The belt system interfering with your getting into, or out of the car--is that a problem, or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 50. The dashboard or any part of it interfering with you getting into or out of the car--is that a problem, or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 51. The belt chafing or rubbing across your chest or some other part of the body--is that a problem, or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 52. The belt causing jewelry, clothing, or other items worn to be damaged, broken, or lost--is that a problem, or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 53. The upper mounting of the shoulder belt interferes with vision out the side of the car--is that a problem, or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 54. The upper mounting of the shoulder belt comes too close to your face or head--is that a problem or not?
  - 1 Problem
  - 2 No problem
  - 0 No opinion

ASK Q. 55 AND Q. 56 OF TOYOTA OWNERS ONLY

- 55. The belt moving close to your head or face as it moves back and forth when you open the door.
  - 1 Problem
  - 2 No problem
  - 0 No opinion
- 56. The speed at which the belt moves whenever the door is opened or closed.
  - 1 Problem
  - 2 No problem
  - 0 No opinion

ASK EVERYONE

57. Please describe any particular problems you have with the belt system that are particularly bothersome for you.

None: \_\_\_\_\_

Problem: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Now, just a few questions for background purposes.

58. As you know, a person's height, weight, and other measurements have a bearing on the comfort aspects of safety belts. For statistical purposes, would you please tell me your--

Height: \_\_\_\_\_ Ft. \_\_\_\_\_ In.

Weight: \_\_\_\_\_ Lbs.

59. In which of these age groups are you? (READ CATEGORIES.)
- |            |              |
|------------|--------------|
| 1 Under 20 | 5 40-49      |
| 2 20-24    | 6 50-59      |
| 3 25-29    | 7 60 or over |
| 4 30-39    | 0 REFUSED    |
60. What was the last year of regular schooling you completed?
- |                                    |
|------------------------------------|
| 1 GRADE SCHOOL GRADUATE OR LESS    |
| 2 SOME HIGH SCHOOL                 |
| 3 HIGH SCHOOL GRADUATE, NO COLLEGE |
| 4 SOME COLLEGE                     |
| 5 COLLEGE GRADUATE                 |
| 6 GRADUATE SCHOOL                  |
| 7 OTHER (TRADE SCHOOL, ETC.)       |
| 0 DON'T KNOW, REFUSED              |
61. Which one of these statements comes closest to your total family income before taxes for the last year? (READ CATEGORIES.)
- |                               |
|-------------------------------|
| 1 Under \$7,000               |
| 2 \$7,000 but under \$10,000  |
| 3 \$10,000 but under \$15,000 |
| 4 \$15,000 but under \$20,000 |
| 5 \$20,000 but under \$30,000 |
| 6 \$30,000 and over           |
| 0 REFUSED                     |
62. What is the model year of your \_\_\_\_\_?
- |              |
|--------------|
| 1 1980       |
| 0 Don't know |
63. Is it a 2-door or 4-door model?
- |          |
|----------|
| 1 2-door |
| 2 4-door |
64. RESPONDENT IS: 1 MALE 2 FEMALE

Thank you very much.



OPINION RESEARCH CORPORATION  
CHEVETTE, RABBIT, TOYOTA REGULAR BELT SYSTEM

TELEPHONE: ( ) \_\_\_\_\_  
Area Code

TIME ENDED: \_\_\_\_\_

ZIP CODE: \_\_\_\_\_

TIME STARTED: \_\_\_\_\_

SAMPLE: 1 CHEVETTE  
2 RABBIT  
3 TOYOTA

LENGTH OF INTERVIEW: \_\_\_\_\_ (MINUTES)

DATE: \_\_\_\_\_

INTERVIEWER: \_\_\_\_\_ ID#: \_\_\_\_\_

Hello, I'm from Opinion Research Corporation, in Princeton, New Jersey. We are conducting a survey for the U.S. Department of Transportation. This study is authorized by Public Law 89-563, Section 106. While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate and timely. In addition, your responses will be kept completely confidential and will never be identified with you.

According to our records, you or someone else in your family bought a new \_\_\_\_\_ within the last year or so. Is that correct?

- 1 YES → CONTINUE  
2 NO → TERMINATE

1. I would like to talk to someone who drives this car and also went to visit the dealer to pick out the \_\_\_\_\_.

Do you now drive this car and were you at the dealer's when the car was purchased, or should I talk to someone else in your household?

1 RESPONDENT QUALIFIES → CONTINUE

2 OTHER PERSON → ASK TO SPEAK TO OTHER PERSON  
OR ARRANGE FOR CALLBACK

NAME OF OTHER PERSON \_\_\_\_\_

INTERVIEWER: Reintroduce yourself if necessary, and explain that you're aware the person recently purchased a new (MAKE OF CAR).

2. We are interested in your reactions to the safety belt in your \_\_\_\_\_. Does it have a regular type seat belt that you need to buckle yourself or do you have one where the belt is attached to the door and automatically operates so that you do not have to buckle it.
- 1 Have regular belt  
2 Have automatic belt  
(TERMINATE)
3. I'd like you to think back to when you visited the dealer's showroom and purchased your \_\_\_\_\_. At that time, did you know that some models came with the automatic safety belt system, that is, where the belt is attached to the door and automatically operates so that you do not have to buckle it?
- 1 Yes, knew  
2 No, did not (GO TO Q. 14)
4. Did you inspect any other models in the showroom before you made up your mind to buy the model you now have?
- 1 Inspected, others (GO TO Q. 14)  
2 No, did not
- (IF "NO, DID NOT" ON Q. 4, ASK:)
5. Did you know pretty much what you wanted and just ordered the car?
- 1 Yes, just ordered  
2 Other \_\_\_\_\_
- (IF "INSPECTED OTHER MODELS" ON Q. 4, ASK:)
6. When you looked at the other models did you see any with automatic safety belts?
- 1 Yes  
2 No, did not  
0 Don't recall → GO TO Q. 9
7. Did you get into any of the other models and try on the automatic safety belt or sit in the seat with the belt across you?
- 1 Yes, tried belt  
2 No, did not  
0 Don't recall → GO TO Q. 9
8. What was your impression of the automatic safety belt at that time, would you say it was favorable, unfavorable, or didn't you have much impression one way or the other?
- 1 Favorable  
2 Unfavorable  
3 Neutral  
0 No opinion

9. Even though you bought a \_\_\_\_\_ with a regular safety belt, did the salesperson discuss or explain the automatic safety belt to you?
- 1 Yes, did  
2 No, did not  
0 Don't recall → GO TO Q. 14
10. Would you describe the salesperson's opinion of the automatic safety belt as favorable or unfavorable or didn't he express an opinion one way or the other?
- 1 Favorable  
2 Unfavorable  
3 Neutral  
0 Don't recall
11. Did the salesperson actually demonstrate how to use the automatic belt, that is, did he get in the car to show you how it operates or have you or someone with you get in the car with the belt on?
- 1 Yes, demonstrated  
2 No, did not  
0 Don't recall
13. I'm going to read four different ways that you might have first heard of or became aware of the automatic safety belt system. After I've read the four statements, please tell me which way best describes how you first became aware of it?
- 1 At the dealer where you bought the car
- 2 In the same model car, owned by someone else
- 3 Through advertising (Would that be:  
1 TV 2 Radio 3 Print)
- 4 Word of mouth--someone told you about it
- 5 Some other way (Specify: \_\_\_\_\_)
14. About how many months have you owned your \_\_\_\_\_? \_\_\_\_\_ months

15. What kind of trip did you take the last time you drove your \_\_\_\_\_, was it a short drive, less than 25 miles round trip or was it a longer drive, more than 25 miles round trip?

- 1 Short trip
- 2 Longer trip
- 0 Don't recall

16. Try to recall that last trip and tell me as accurately as you can if you did or did not wear the safety belt in your \_\_\_\_\_.

- 1 Did wear belt
- 2 Did not
- 3 Other \_\_\_\_\_
- 0 Don't recall

17. Now, think back to the last trip you drove another car. Was that round trip shorter or longer than 25 miles?

- 1 Shorter
- 2 Longer
- 0 Don't recall

18. For that specific trip, tell me as accurately as you can if you did or did not wear the safety belt?

- 1 Did wear belt
- 2 Did not
- 3 Other \_\_\_\_\_
- 0 Don't recall

19. If you were to purchase another new car and the model you wanted was available either with the automatic seat belt or the regular type of seat belt, which belt system would you choose? (Assume no difference in cost)

- 1 Automatic
- 2 Regular
- 3 Other \_\_\_\_\_
- 0 No opinion

20. Has either the driver's or passenger's safety belt in your \_\_\_\_\_ been cut off or removed or in some way been fixed so that it can't be used?

- 1 Yes, has
- 2 No, has not

(IF "YES, HAS" ON Q. 20, ASK:)

21. What specifically was done to the belt system so that it can't be used?

22. Can you tell me why this was done?

23. In general, would you say that your safety belt system is:

- 1 Convenient to use
- 2 Reasonably convenient
- 3 Not convenient to use

24. How about the comfort of the safety belt system. Would you say it is:

- 1 Comfortable to wear
- 2 Reasonably comfortable
- 3 Not comfortable

We would like your opinion on some specific points related to the comfort and convenience aspects of the safety belt in your \_\_\_\_\_ when you are wearing the belt. For each I mention, please tell me if you consider it a problem, or not a problem.

- |  |   |
|--|---|
| 25. The safety belt interferes when reaching for the glove compartment or any of the controls on the dashboard, would you say that is a problem for you, or not? | 1 Problem<br>2 No problem<br>0 No opinion |
| 26. The belt resting on or rubbing across your face or neck-- is that a problem for you, or not?   | 1 Problem<br>2 No problem<br>0 No opinion |
| 27. The way the belt crosses your chest--is that a problem for you, or not?  | 1 Problem<br>2 No problem<br>0 No opinion |
| 28. The belt exerting too much pressure on your shoulder or chest--is that a problem, or not?  | 1 Problem<br>2 No problem<br>0 No opinion |
| 29. The belt chafing or rubbing across your chest or some other part of the body--is that a problem, or not?   | 1 Problem<br>2 No problem<br>0 No opinion |
| 30. The belt causing jewelry, clothing, or other items worn to be damaged, broken, or lost--is that a problem, or not?   | 1 Problem<br>2 No problem<br>0 No opinion |

ASK EVERYONE

31. Please describe any particular problems you have with the belt system that are particularly bothersome to you.

None: \_\_\_\_\_

Problem: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Now, just a few questions for background purposes.

32. As you know, a person's height, weight, and other measurements have a bearing on the comfort aspects of safety belts. For statistical purposes, would you please tell me your--

Height: \_\_\_\_\_ Ft. \_\_\_\_\_ In.

Weight: \_\_\_\_\_ Lbs.

33. In which of these age groups are you? (READ CATEGORIES.)
- |            |              |
|------------|--------------|
| 1 Under 20 | 5 40-49      |
| 2 20-24    | 6 50-59      |
| 3 25-29    | 7 60 or over |
| 4 30-39    | 0 REFUSED    |
34. What was your last year of regular schooling you completed?
- |                                    |
|------------------------------------|
| 1 GRADE SCHOOL GRADUATE OR LESS    |
| 2 SOME HIGH SCHOOL                 |
| 3 HIGH SCHOOL GRADUATE, NO COLLEGE |
| 4 SOME COLLEGE                     |
| 5 COLLEGE GRADUATE                 |
| 6 GRADUATE SCHOOL                  |
| 7 OTHER (TRADE SCHOOL, ETC.)       |
| 0 DON'T KNOW, REFUSED              |
35. Which one of these statements comes closest to your total family income before taxes for the last year? (READ CATEGORIES.)
- |                               |
|-------------------------------|
| 1 Under \$7,000               |
| 2 \$7,000 but under \$10,000  |
| 3 \$10,000 but under \$15,000 |
| 4 \$15,000 but under \$20,000 |
| 5 \$20,000 but under \$30,000 |
| 6 \$30,000 and over           |
| 0 REFUSED                     |
36. What is the model year of your \_\_\_\_\_.
- |              |
|--------------|
| 1 1980       |
| 0 Don't know |
37. Is it a 2-door or 4-door model?
- |          |
|----------|
| 1 2-door |
| 2 4-door |
38. RESPONDENT IS: 1 MALE 2 FEMALE

Thank you very much.