DOT HS-801 957

SAFETY BELT INTERLOCK SYSTEM USUAGE SURVEY

Contract No. DOT-HS-5-01039
August 1976
Final Report

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Washington ,D.C. 20590

Prepared for the Department of Transportation,
National Highway Traffic Safety Administration,
under Contract No. DOT-HS-5-01039.

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DOT HS-801 957		

4. Title and Subtitle	5. Report Date
Safety Belt Interlock System Usage Survey	August 1976
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
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9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Opinion Research Corporation North Harrison Street Princeton, New Jersey 08540	11. Contract or Grant No. DOT-HS-5-01039
	13. Type of Report and Period Covered Final Report Sept. 1974 - May 1976
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Office of Driver and Pedestrian Research Washington, D. C. 20590	14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

This research is intended to measure the effectiveness of various use-inducing systems in increasing safety belt usage. Specifically, the objectives are: (1) to determine if the 1975 warning system issued in response to P.L. 93-492 is effective in increasing usage; (2) to ascertain drivers' reactions to this and other systems on 1975 model cars; and (3) to continue to monitor safety belt usage in the general traffic population. Methods used to carry out the research include: (1) an observation study to record safety belt usage among drivers and front outboard passengers in 1975, 1974, and 1973 private passenger cars; (2) a telephone interview among owners/drivers of 1975 model cars from the observation study; and (3) telephone interviews with a sample of Spring/Summer registered owners of 1975 model cars. The latter sample was required in order to obtain a sufficient number of interviews with owners of cars having the 1975 warning system. Results show that the 1975 warning system is not very effective as a use-inducing system. Most effective is a system that includes (1) a reminder light that goes on and stays on until the belt is fastened, and (2) a sequential logic circuit that requires to first be seated and second to buckle the belt. Drivers' attitudes toward the use of safety belts, and perceived comfort of both the lap belt and shoulder harness are also key factors which are correlated with usage.

17. Key Words	18. Distribution Statement
Safety belts, seat belts, shoulder harness, interlock system, interlock circumvention, interlock defeat	Document is available to the public through the National Technical Information Service, Springfield, Va. 22151

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unlimited	Unlimited	75	

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

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INTRODUCTION: BACKGROUND AND OBJECTIVES

It is generally recognized that the utilization of the safety belts already in passenger cars would constitute the most cost-effective single measure to reduce fatalities and injuries in motor vehicle crashes.

Although seat belts were required in passenger vehicles as early as 1964, the rate of safety belt usage was discouragingly low. As a first step directed to increase wearing rates, NHTSA initiated a broad spectrum of research activities designed to explore all reasonable means of achieving this goal. One of these initial projects explored the motivations and circumstances surrounding both the use and nonuse of safety belts. One important finding of this research was that safety belts at that time were needlessly complex, uncomfortable, and inconvenient. Another finding indicated a significant proportion of people didn't wear belts because they needed to be reminded.

These results contributed to NHTSA's establishing a requirement for light-and-buzzer reminder systems for "1972½" and 1973 automobiles. These "use-inducing" reminder systems significantly increased belt wearing rates, as shown by a number of independent studies, from on the order of 20% to approximately 40%. Unfortunately, these wearing rates tended to decline with time and as the cars got older.

The simple sensor system used to activate the belt-use reminder in 1972-73 cars could be bypassed easily; and, furthermore, once the belt was left in an extended position or left buckled, the reminder system would never be activated again. To deal with this problem, the 1974 models incorporated a "sequential logic system." This system essentially required that the belt be fastened only after the appropriate seat had been occupied, in order to be "satisfied" that the belt was being used. The starter-interlock feature prevented the engine from starting unless the logic system was "satisfied" that the front belts were fastened when the corresponding seat positions were occupied. Except for the sequential logic, the warning light and buzzer used in 1974 cars were the same as in the 1972-73 models.

Usage rates in 1973 and 1974 model cars have been measured in 19 U.S. cities over a time period covering February through December of 1974. The starter-interlock system more than doubled belt usage from about 28% in 1973 cars to about 67% in 1974 cars. However, the usage rates in 1974 cars show a decrease over time.

Despite its effectiveness as a use-inducing system, the starter-interlock feature was not well accepted by the public, with many individuals resenting the system because they felt they were being forced to fasten their safety belts. Some of the more active of this group sent letters of complaint to their Congressmen and, in the 1974 Motor Vehicle and School Bus Amendment passed by Congress, NHTSA was prohibited from having a standard which required an interlock system or a continuous buzzer (defined as one which sounded for more than 8 seconds after the ignition was turned to the "on" or "start" position).

In response, NHTSA changed the standard so that cars produced after February of 1975 had a warning system that consisted of: (1) a 4-8 second warning light that is activated whenever the ignition is turned on, regardless of whether or not the belt has been fastened, and (2) a buzzer that will sound for 4-8 seconds unless the driver's belt is fastened.

The model year 1975 offered a unique opportunity to study safety belt usage in U.S. passenger cars. Early in the model year, cars were made available to the public with the starter-interlock and sequential-logic systems. With the passage of P.L. 93-492, cars manufactured after February 1975 included the 1975 warning system previously described. Also, for a short period, cars were being sold with the starter-interlock disconnected, but with the continuous light and buzzer and sequential logic still intact.

Thus, the major objectives of this study are:

1. To continue to monitor safety belt usage rates in 1973 and 1974 model cars

2. To track usage rates in cars with the 1975 warning system; and in 1975 models in which the starter-interlock had been disconnected, and the continuous light and buzzer and sequential logic left intact.

3. To interview drivers/owners of 1975 cars to determine their reaction to the various warning systems described above.

METHODOLOGY

This study on safety belt usage is a follow-up to a study conducted for the U.S. Department of Transportation by Opinion Research Corporation during 1974-1975. The final report for the earlier study was filed with DOT in May 1975 and is identified as DOT-HS-801-594 (Safety Belt Interlock System: Usage Survey). This study, like the earlier one, represents a 19-city survey of private passenger cars in the traffic population. Both studies were divided into two phases: (1) observation of drivers and front outboard passengers to determine their usage of safety belts; and (2) a follow-up telephone survey among a subsample of observed drivers to obtain additional information relating to attitudes and practices regarding safety belt usage. The current study also includes interviews with a special sample of owners/drivers of 1975 model cars who were not observed in the traffic population study. The purpose of this special sample was to obtain a sufficient number of interviews with owners/drivers of late model 1975 cars which included the 1975 warning system. The earlier 1975 models either had the starter-interlock system or a modification of the interlock system.

To meet the study objectives previously mentioned, the research design called for a number of tasks. The major tasks were:

- Select sample cities
- Sample within cities
- Supervise and train observers
- Observe safety belt usage in private passenger cars over an eight month period (January - August 1975)
- Verify model year through DMV search
- Conduct follow-up telephone interviews

Selection of Sample Cities

This study was conducted in the same 19 cities as the 1974 study. The cities were selected on the basis of the following criteria:

Geographical location -- section of the country

Population size

Climate conditions

Availability of good observer/interviewer staffs

Where possible, preference was given to states which provide that the license of a car that is sold stays with the car, and not with its former owner. This was to maximize the probability that a telephone follow-up interview would be with the owner or driver originally observed, not someone in the family of the car's new owner (if the car was sold between the times of observation and interview).

Following are the 19 metropolitan areas in the sample for the general population of vehicles:

Atlanta, Ga.	Minneapolis-St. Paul, Minn.
Baltimore, Md.	New Orleans, La.
Birmingham, Ala.	New York, N. Y.
Boston-Cambridge, Mass.	Phoenix, Ariz.
Chicago, Ill.	Pittsburgh, Pa.
Fargo-Moorhead, N. D.	Providence, R. I.
Dallas, Tex.	San Diego, Calif.
Houston, Tex.	San Francisco, Calif.
Los Angeles, Calif.	Seattle, Wash.
Miami, Fla.	

Sampling Within Cities

In each metropolitan area, the objective was to select representative observation sites on the basis of:

Roadway types

Traffic volume

Downtown vs. outlying locations

To achieve this objective, maps were obtained which showed both the city and its outlying areas. The sample area extended approximately five miles beyond the city limits. The maps were then laid out in grid patterns, usually one-inch squares, and a random selection of squares was made.

Within each sample square, the supervisor was given a series of eight street intersections which, as far as could be ascertained from the map, provided suitable observation posts.

The supervisor was given some discretion for selecting the actual observation sties within the squares. The preference was for primary street intersections, where there would be a sufficient flow of traffic to make for efficient utilization of the observer's time, but where the traffic would stop from time to time (as at a traffic light) to permit accurate observation of seat belt usage and the car itself. Another consideration was that the observation sites provide maximum safety for the observers, from the viewpoint of both traffic and crime hazards.

In each city, the assignment of interviews was balanced by day of week and time of day.

Training

In each of the 19 cities, observers worked under the direction of a local supervisor who reported to the ORC Project Director in Princeton, New Jersey. All observers received personal training either from an ORC research staff member or from the local supervisor along with the observer that he or she replaced. In addition to personal on-site training, each observer was provided with a detailed instruction booklet which covered the following topics: (1) Introduction and purpose of study; (2) How to identify 1973, 1974, and 1975 model cars; (3) Positioning yourself at the observation site; (4) Observing and recording the required information; and (5) How to properly record safety belt usage.

Observation Techniques

Eligible observation hours were 8:30 - 6:30, with a cutoff somewhat earlier in winter months to avoid darkness. Eligible cars were 1975, 1974, and 1973 model passenger vehicles registered in the state where the observations were being obtained.

As previously noted, observers were carefully trained in the techniques to follow, particularly the methods of distinguishing model year and the importance of determining accurately the three categories of safety belt usage we were reporting. The extended bumpers and unique design of the safety belt were aids in the identification of 1974 and 1975 models. It was stressed that accurate observations required a reasonably close position to the car, so that it was easy to see in -- but all this within the context of safeguarding the observer's security.

The approved technique was to observe the car and its occupants closely from the curb, while the car was stopped. A sign, "Traffic Survey," pasted on the back of the observer's clipboard, and a DOT booklet on road signs to be used as a handout when needed, facilitated the process.

The observer recorded the sex and safety belt usage of the driver and the front outboard passenger; the make, model year, and seat type of the car; the total number of occupants in both the front and back seats of the car; the weather conditions at the time; and the license number of the car. The license number was needed to permit a DMV verification of the model year of the car and to provide the name and address of the owner for the telephone interview. Observers were instructed to give priority to 1975 models.

Verification of Model Year Through DMV Search

At intervals, when a sufficient number of observations had been obtained, they were put on punch cards for submission to the states by DOT. When the verified data came back to ORC (usually on magnetic tape, but occasionally in the form of computer print-outs), they were converted to punch card form to permit computer matching with the cards for the original observations; the purpose of this step was to provide a set of usage observations verified as to model year.

Telephone Interview Follow-Up

Cars verified through the DMV search as 1975 models from the observation study were eligible for the follow-up telephone interview study. In addition, telephone interviews were conducted with a special sample of Spring/Summer registered owners of 1975 cars in order to obtain a sufficient number of cars with the 1975 warning system for analysis.

At this point we prepared a computer print-out of names and addresses of users and nonusers for assignment to the field for telephone follow-up. In preparing the listing, we were able to screen out passenger cars owned by car rental and other business firms.

The next step was for the ORC Interviewing Department to look up, or try to obtain through Directory Assistance, the telephone numbers of the people whose names and addresses we had given them. Naturally, there was some attrition at this point because of unlisted numbers, discontinued numbers, etc.

Finally, from the list of telephone numbers obtained, telephone interviews were conducted. The listing sheet noted the sex of the person observed, and the interviewer was instructed to ask for a male/female

respondent, accordingly, in the household being contacted. No doubt there were times when this rule did not produce an interview with the person observed, but rather with another person of the same sex in that household. The extent of this problem cannot be ascertained.

It should also be pointed out that the behavior of the respondent in the observation situation may have been atypical compared with his/her more generalized behavior reported in the interview.

Following are the main subjects covered in the telephone interview:

Attitudes toward safety belt warning system

Type of warning system in 1975 car:
(a) at time of interview
(b) at time of delivery

Behavior and practices: reported usage, defeating or circumventing the system

Reliability of the system

Instruction on wearing safety belt

Ratings of the safety belt on comfort and accessibility

Background data

The telephone interview study is based on a total of 3,153 interviews of owners/drivers of 1975 model cars (1,115 from the observation study and 2,038 from the special sample). An analysis of the number of completed interviews in relation to the number of names and addresses made available from the DMV's files is included in the Appendix.

SUMMARY OF FINDINGS

This Summary of Findings is based on data derived from a research program to determine the effectiveness of various safety belt warning systems in increasing belt usage. The research consisted of two phases:

(1) Curbside observations of safety belt usage in private passenger cars in 19 U.S. cities.

(2) Telephone interviews in the same 19 cities with owners/drivers of 1975 model cars. This phase covered practices and attitudes with regard to safety belt usage and various types of warning systems.

In this summary, highlights from the observation phase are presented first, followed by highlights from the interview phase.

Observation Study

1. Observed Safety Belt Usage

The most recent data on safety belt usage by outboard front-seat occupants in U.S. private passenger cars, obtained during the month of June 1975, is as follows:

	1975 Models	1974 Models	1973 Models
Both shoulder and lap belt on	33% } 40%	35% } 43%	3% } 20%
Lap belt only	7	8	17
Both off	60	57	80
	N = 2,464	5,165	1,350

The rate of usage in terms of full protection (both shoulder and lap belt on) in 1975 and 1974 models is over ten times as high as in 1973 models. The combination lap belt and shoulder harness along with more sophisticated warning systems have significantly increased use of safety belts despite the fact that many of the improved use-inducing systems have been rendered inoperative by vehicle owners.

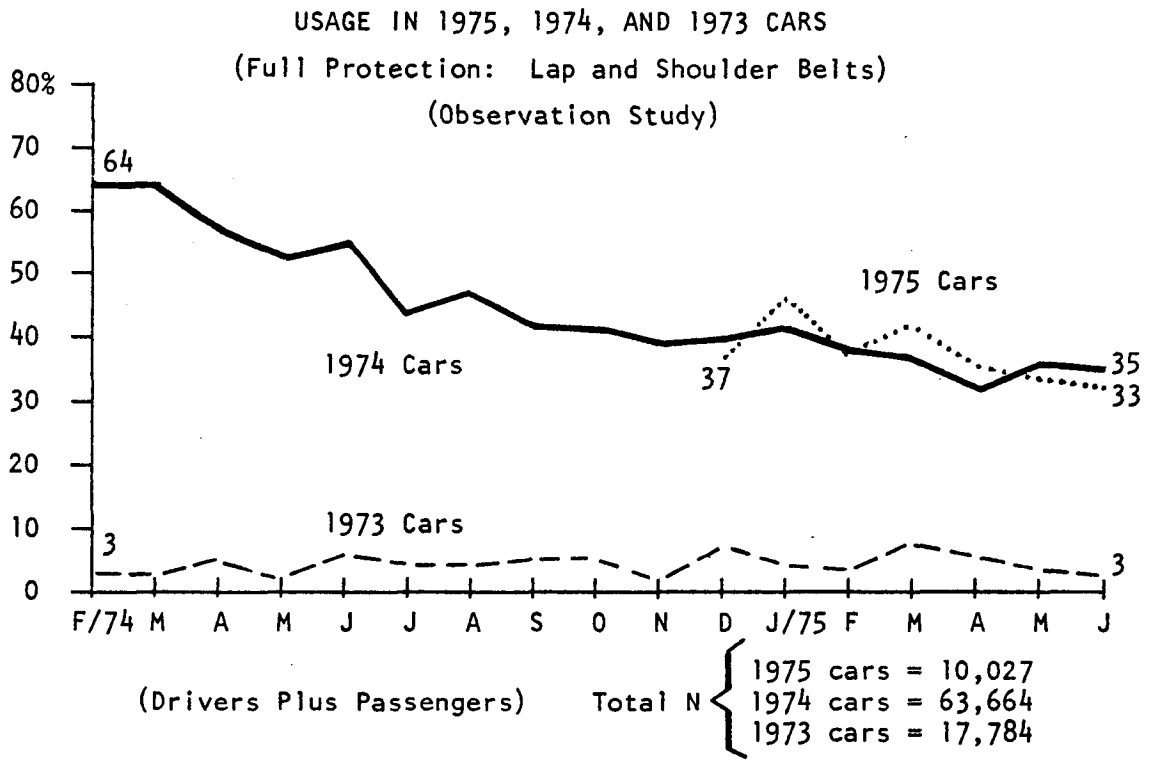
> Note: In the observation phase it was not possible to identify the type of warning system. Thus, usage data from the observation study cannot be related to a specific type of warning system.

2. Trends in Usage -- Full Protection

Safety belt usage in 1975 and 1974 model cars during the seven-month period, December 1974 - June 1975, is remarkably similar. Starting at the 37% level in December, the usage rate for 1975 models declined to 33% by June. During the same period, the usage rate for 1974 models went from 40% to 35%.

Over a period of seventeen months (February 1974 - June 1975), safety belt usage in 1974 models shows a twenty-nine percentage point decline, from 64% to 35%.

Usage data for 1973 models have remained relatively steady over the seventeen month period, with only minor fluctuation above or below the 3% level.



3. Similarities and Differences in Usage Patterns

Findings from the observation phase show little or no difference in safety belt usage between male and female drivers or between drivers and front outboard passengers in 1975 and 1974 models.

Significant differences in safety belt usage, however, are evident when the data are examined by certain vehicle characteristics. The lighter and smaller the car, the more likely its front seat occupants are to wear safety belts. On the other hand, usage is observed to be lowest in the heavy, luxury-type cars.

The data show a somewhat higher rate of safety belt usage in two-door cars than in four-door cars and in vehicles with bucket seats than in those with bench seats.

Differences in usage are also evident according to manufacturers. Usage is higher for the foreign makes -- Toyota, Volkswagen, and Datsun -- than for any of the domestic models. Safety belt usage in foreign cars, however, is not significantly higher than usage in U.S. sub-compact models, indicating that usage is more related to size and weight than to make of car.

Attitudinal Study

In addition to certain vehicle characteristics previously noted, findings from the attitudinal study reveal three key factors which strongly influence safety belt usage. These are:

(1) The type of use-inducing system in the car at time of delivery.

(2) Driver attitudes toward the restraint system in general.

(3) Perceived comfort of both the lap belt and the shoulder harness.

Other factors such as a person's sex, age, education, family income, place of residence, and miles driven per year appear to have little or no effect on safety belt usage.

4. Reported Usage by Type of System

In order to ascertain safety belt usage by type of system, the attitudinal phase of the study included a series of questions to determine the type of warning system, if any, that was in the 1975 model car when it was purchased.

The incidence of safety belt usage is highest for 1975 model cars which include a warning system with the following characteristics:

(1) A reminder light that goes on and stays on until the belt is fastened.

(2) A sequential logic system that requires the driver to first be seated and second to buckle the belt.

The warning system on late model 1975 cars, which consists of a reminder light and buzzer that goes off automatically after 4-8 seconds regardless of whether or not the belts are fastened (the so-called 1975 warning system), does not appear to be very effective in increasing safety belt usage. The reported usage rate for this system is barely above the usage rate for cars with no operating warning system.

REPORTED USAGE IN 1975 CARS

(December 1975)

Delivered System	Lap and Shoulder	Lap Only		N
Cont. lt. & buz., seq.	60	10	70%	326
Interlock	43	7	50%	818
4-8 sec. lt. & buz.	28	5	33%	1,061
No W.S.	22	2	24%	311

5. Warning System Defeat and Circumvention

In general, the more complex and sophisticated the warning system, the more likely is the system to be defeated or circumvented.

Percentages of drivers who report either that the warning system in their 1975 car has been defeated or say they circumvent the system:

Delivered System:	Defeat	Circumvent
Interlock	36%	12%
Cont. lt. & buz., seq.	20%	16%
1975 W.S. (4-8 sec. lt. & buz.)	4%	4%

Although the 1975 warning system is not subject to widespread defeat or circumvention, it is by far, as previously noted, the least effective as a use-inducing system.

Drivers who report that they circumvent the various warning system most commonly say that they buckle the belt behind their back, buckle it once and leave it that way, or hook the belt on the door handle. These are the main methods mentioned by drivers of 1975 cars.

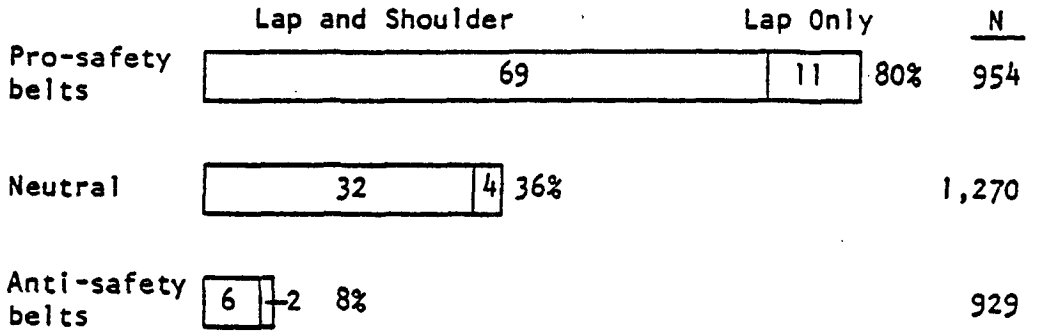
6. Attitude Index

In addition to the relationship between type of warning system and usage, there is close correspondence between a person's attitude toward safety belts and his/her use of safety belts.

Among owners/drivers of 1975 model cars, 30% are classified as "pro-safety belts," 40% as "neutral," and 30% as "anti-safety belts."

Drivers classified as "pro-safety belts" are ten times more likely to wear a safety belt than are drivers classified as "anti-safety belts."

REPORTED USAGE IN 1975 CARS



Note: The method used to classify drivers on the Attitude Index is described on page 21.

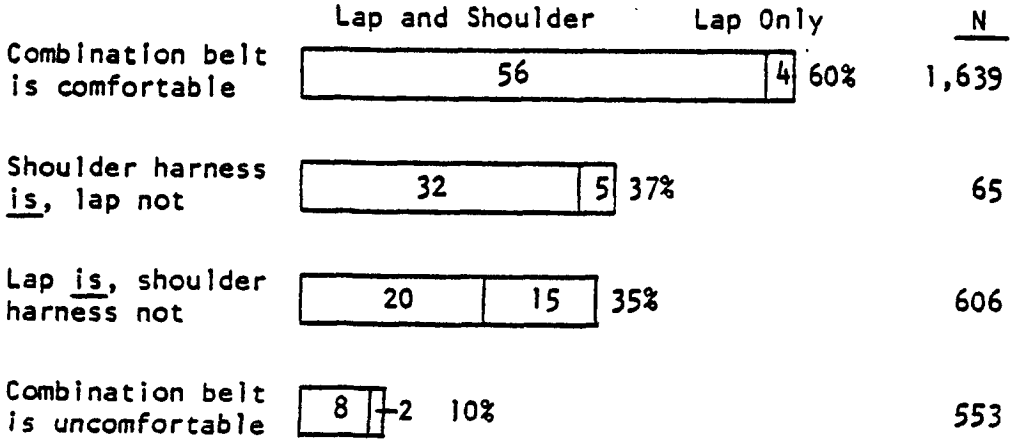
7. Comfort of Safety Belts

A third factor which is highly correlated with usage is how comfortable or uncomfortable drivers perceive the lap belt and shoulder harness to be.

Among drivers as a whole, 73% rate the lap belt either "comfortable" or "fairly comfortable." In contrast, only a little more than half (54%) rate the shoulder harness "comfortable" or "fairly comfortable."

The relationship between attitude, in terms of perceived comfort of safety belts, and usage is quite evident in the following chart.

REPORTED USAGE BY COMFORT FACTOR



8. Accessibility of Safety Belt

About half (55%) of the drivers interviewed say the accessibility of the safety belt in their 1975 car (that is, being able to take hold of the buckle, pull it out of the reel, and fasten it) presents no problem.

Overall, 27% of the drivers say that accessibility is a minor problem; 9% say it is a moderate one; and 5% say it is a serious problem.

9. Instructions for Use of Safety Belt

Among owners of 1975 model cars, a substantial proportion (46%) report that they did not receive any personal instructions on how the combination lap and shoulder harness should be worn.

About three in ten (29%) say they received instructions on use of the belt from the dealer or salesman, and 23% cite the owner's manual as a source of instruction.

10. Malfunction/Failure of Warning System

Among owners/drivers of 1975 cars delivered with either a starter-interlock or a continuous light and buzzer, about one in ten (11%) reports a malfunction or mechanical failure in the system. The incidence of reported problems is considerably less for the 1975 warning system, with only 6% reporting a malfunction or mechanical failure.

Drivers who report a malfunction or mechanical failure more often characterize the problem as "minor" or "bothersome" than as "serious."

DETAILED QUANTITATIVE FINDINGS

PHASE I OBSERVATION STUDY

The primary body of data reported in this section is based on the following numbers of cases:

10,027 verified observations of 1975 model cars

63,664 verified observations of 1974 model cars

17,784 verified observations of 1973 model cars

Except where otherwise noted, all observational data are based on observations which were verified as to model year by the DMV's (Department/Division of Motor Vehicles) in each state where the study was conducted.

Throughout the report, tests of statistical significance (at the 95-in-100 confidence level) have been applied. Thus, any statements to the effect that A is larger (or smaller) than B may be taken as having met the test of statistical significance. The symbol (S) is used to identify a given percentage as being significantly larger or smaller than other percentages in a chart or table.

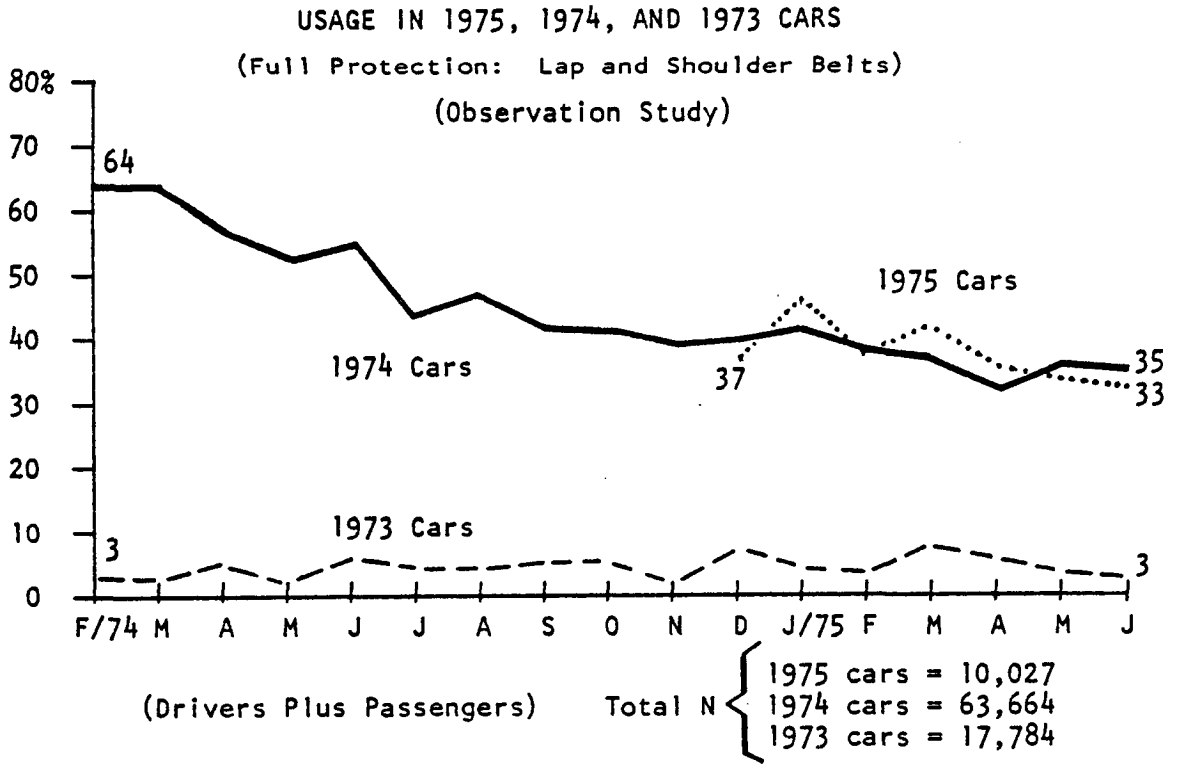
Monthly Trends in Usage

The monthly usage data for 1975 and 1974 model cars in the general population of vehicles during the period December 1974 - June 1975 are remarkably similar. Starting at the 37% level (for drivers and passengers wearing both the lap and shoulder belt correctly), the usage figure for 1975 vehicles declined to 33%, or four percentage points, over the 7-month period. The corresponding decline in usage for 1974 cars during the period is five percentage points. Over a period of 17 months (February 1974 - June 1975), belt usage in 1974 cars shows a twenty-nine percentage point decline from 64% to 35%.

Usage data for 1973 cars have remained relatively steady over the 17-month period, with only minor fluctuation above or below the 3% level.

It is significant to note that despite declining usage figures for 1975 and 1974 model cars, usage in these models as of June 1975 is over ten times that for 1973 cars. Obviously, the combination lap and shoulder harness along with more sophisticated warning systems is having a positive impact on safety belt usage.

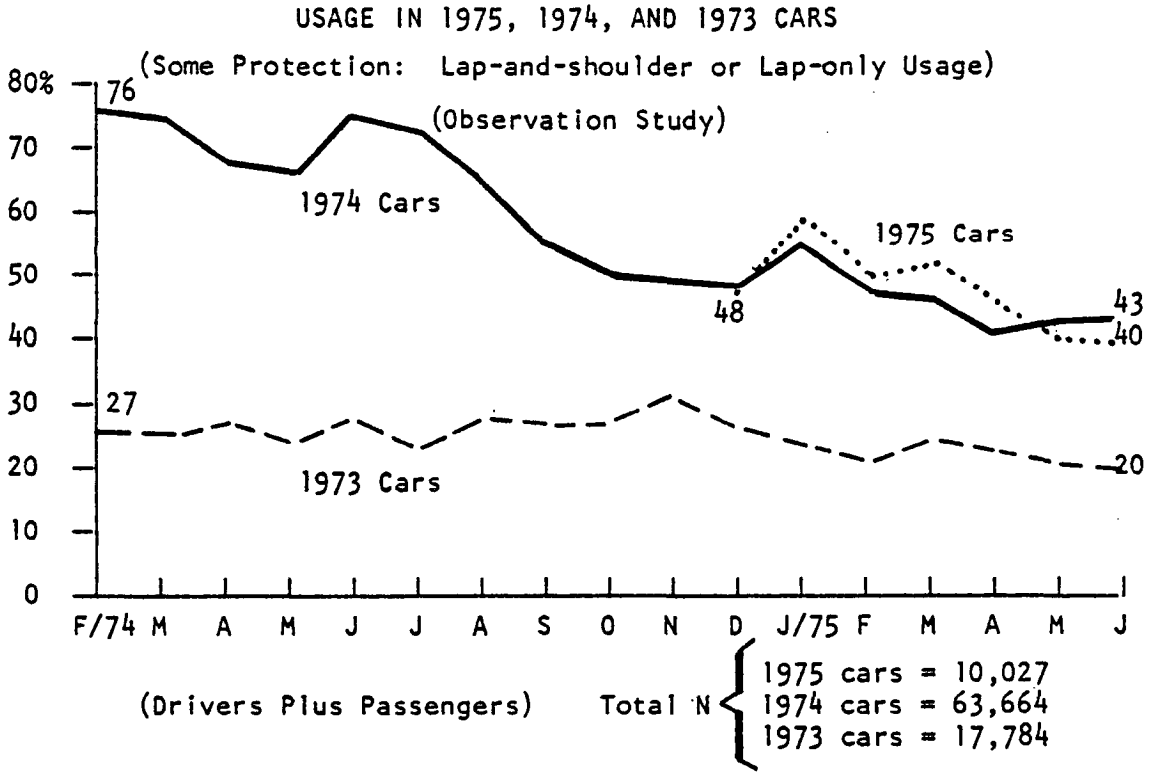
Figure 1



When usage is defined more broadly (lap and shoulder belt, or lap belt only[1/]), the usage rates again are similar for 1975 and 1974 model cars during the period December 1974 - June 1975. Over the 7-month period, usage in 1975 models declined eight percentage points while usage in 1974 models declined six percentage points. The 17-month trend for 1974 models shows a thirty-three percentage point drop in usage, from 76% in February 1974 to 43% in June 1975.

In 1973 models, belt usage in terms of some protection (mainly lap-only usage) has declined seven percentage points over the 17-month period.

Figure 2



1/ Drivers and passengers who are buckled up but wear the shoulder harness under the arm or behind the back.

Usage by Interlock vs. 1975 Warning System

Figure 3 opposite tracks monthly usage data for two types of use-inducing systems -- 1975 vehicles which were shipped to dealers with the interlock system and 1975 vehicles which were shipped with the 1975 warning system. As of June 1975, the usage rate in terms of some protection (lap and shoulder or lap belt only) for vehicles which left the assembly line with interlocks was not significantly higher than for cars which were delivered to dealers with the 1975 warning system. It should be noted that the usage figures for both systems do not reflect what happened to these systems between the time the car was purchased and the time the driver/passenger was observed. As will be shown later, many owners of cars purchased with an interlock system had the system defeated and, when observed in the General Population study, were driving in a car with either no use-inducing system or a system much less rigorous than the interlock system.

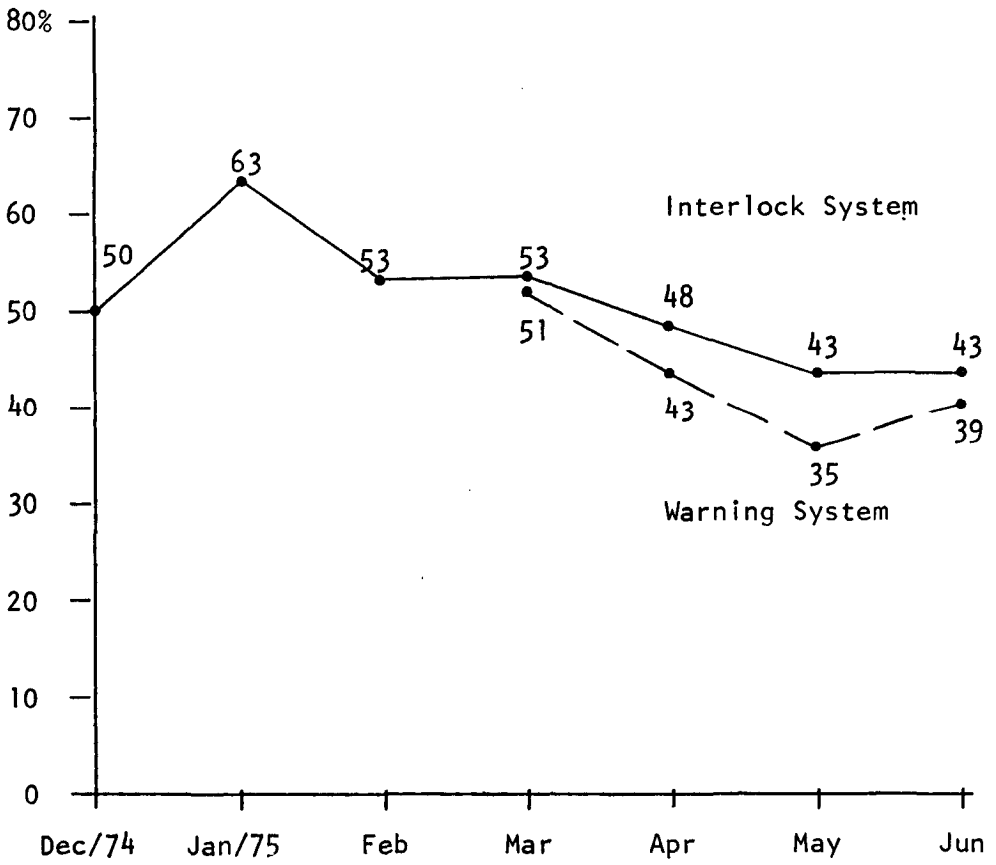
Technical Note: Identification of the two types of systems was accomplished by an analysis of VIN number codes furnished ORC by Ford and General Motors.

1975 Warning System: This system includes a reminder light and buzzer with an "on" duration of 8 seconds or less; but no starter-interlock and no sequential logic circuit.

Figure 3

OBSERVED USAGE IN 1975 CARS

(Some Protection: Lap-and-shoulder or Lap-only Usage)



Usage for drivers and front passengers for 1975 Ford and G.M. cars.

Total N { Interlock Cars = 5,624
Warning System Cars = 1,420

Trends in Verified vs. Unverified Data

In general, the verified and unverified usage figures closely parallel each other, month by month, for the available period, as shown in Figures 4 below and 5 opposite. The results in Figure 4 reflect usage according to the concept of full protection and in Figure 5 in terms of some protection.

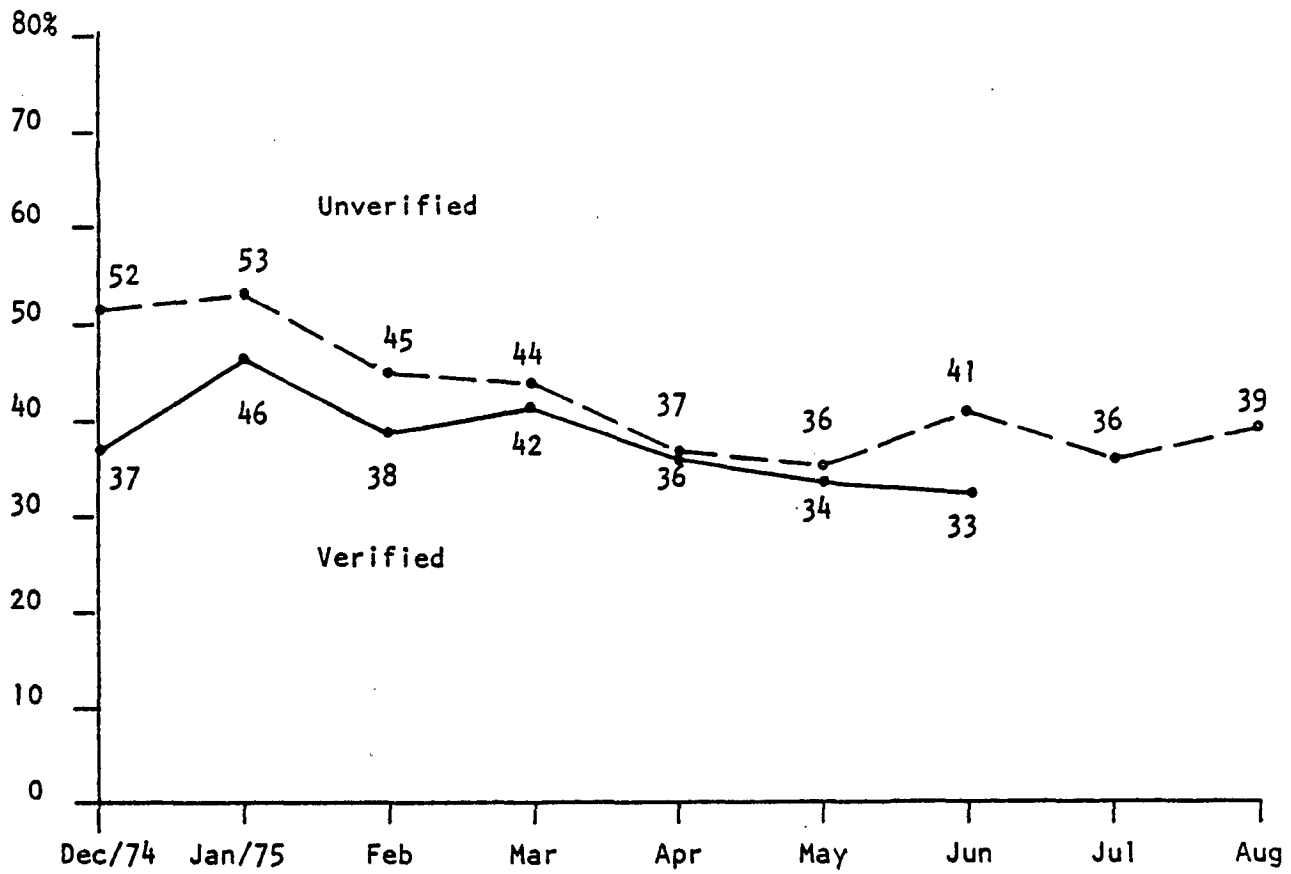
The main value of the unverified data was that usage data could be promptly reported to DOT on a month to month basis throughout the observation period. There is a considerable time lag between the submitting of license numbers to the DMV's and their return for tabulating purposes.

The number of verified cases is smaller than the number of unverified cases for the following principal reasons: some of the cars reported by observers as 1975 models drop out because the DMV's report them as pre-1974 models; some of the license numbers reported by observers cannot be located by the DMV's in their files.

Figure 4

OBSERVED USAGE IN 1975 CARS

(Full Protection: Lap and Shoulder Belts)



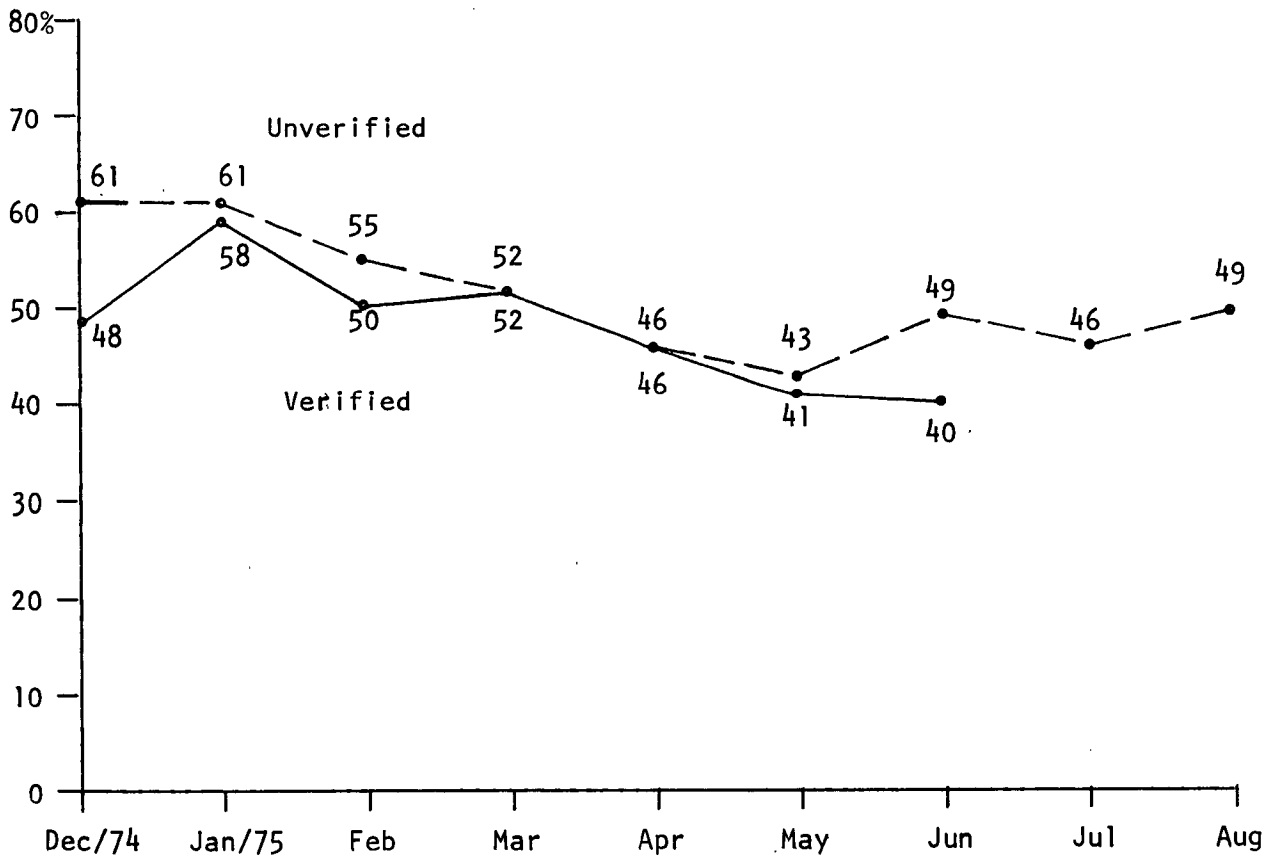
(Drivers plus Passengers)

N { Verified = 10,027
Unverified = 33,308

Figure 5

OBSERVED USAGE IN 1975 CARS

(Some Protection: Lap-and-shoulder or Lap-only Usage)



(Drivers plus Passengers)

N { Verified = 10,027
N { Unverified = 33,308

Usage by Manufacturer

Usage in terms of full protection in 1975 models ranges from 58% for Toyota to 25% for Chrysler. In terms of some protection, the range is 70% for Toyota to 33% for Chrysler (Figure 6). Because of their smaller size and lighter weight, the foreign makes score higher on usage than do the American makes. The fact that size and weight class influence usage is also evident in Figure 7, which shows that usage in foreign cars is not significantly higher than usage in U.S. sub-compact models.

The rankings for 1973 and 1974 models show pretty much the same pattern of usage as evident for 1975 models. (See Figure 8, opposite.)

Figure 6

OBSERVED USAGE IN 1975 CARS
(Dec. 1974 - June 1975)

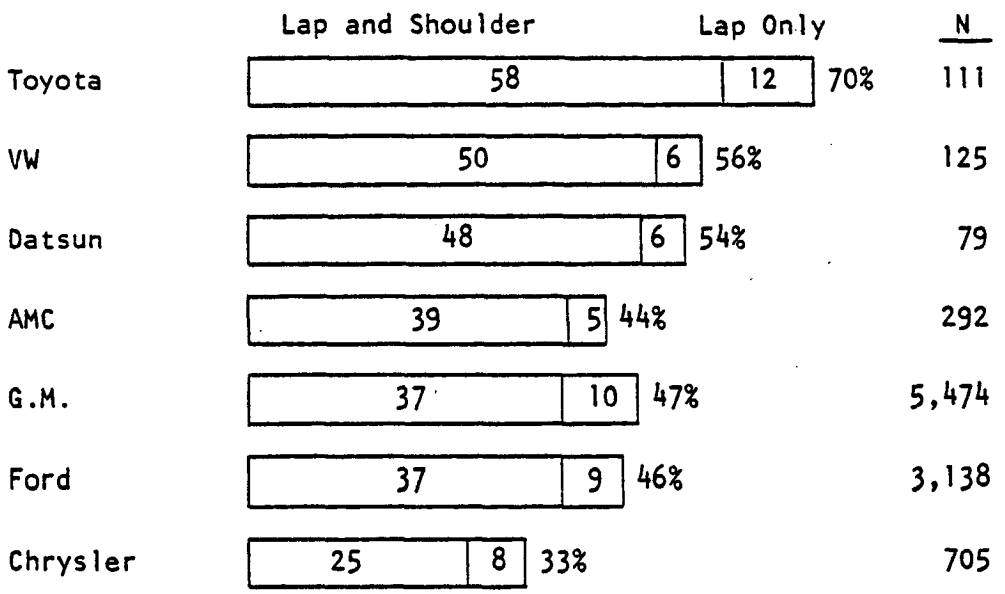


Figure 7

OBSERVED USAGE IN 1975 CARS
(Dec. 1974 - June 1975)

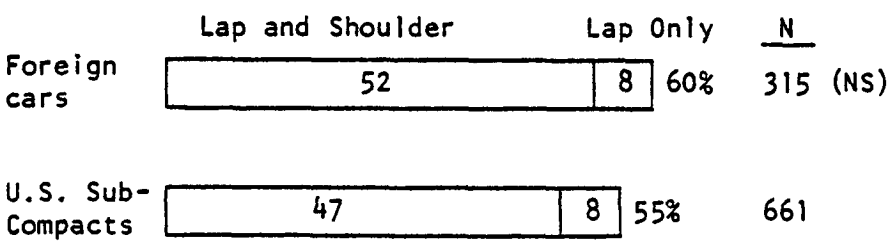


Figure 8

OBSERVED USAGE IN 1975, 1974, AND 1973 CARS

(Nov. 1974 - June 1975)

Some Protection: Lap-and-shoulder or Lap-only

	Model Year		
	1975	1974	1973
	%	%	%
Toyota	70	71	48
VW	56	48	47
Datsun	54	60	42
AMC	44	43	35
G.M.	47	47	22
Ford	46	47	24
Chrysler	33	31	28
N =	10,027	33,913	9,508

Usage by Weight Class, Number of Doors, and Type of Seats

Drivers and front seat passengers in sub-compact cars are more likely to wear the safety belt than are the front seat occupants in cars in the heavier weight classes. Usage is lowest in the heavy luxury type cars. No significant differences in usage are evident among compact, intermediate, and standard models.

The data also show higher usage in two-door cars than in four-door cars and in vehicles with bucket seats than in those with bench seats.

Figure 9

OBSERVED USAGE IN 1975 CARS
(Dec. 1974 - June 1975)

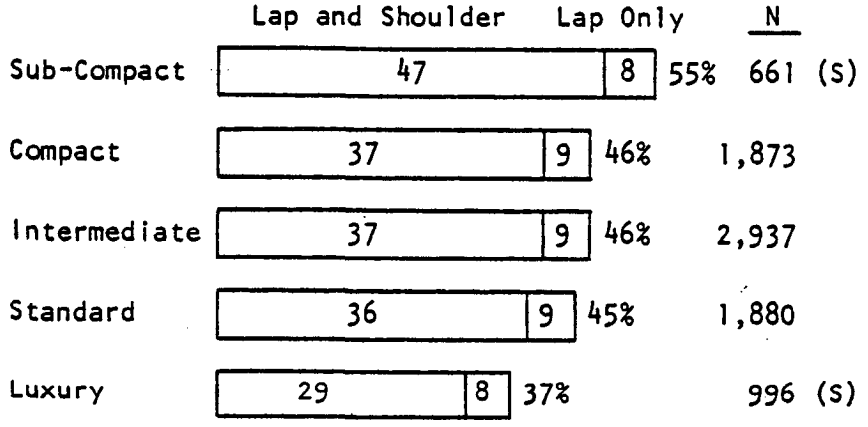
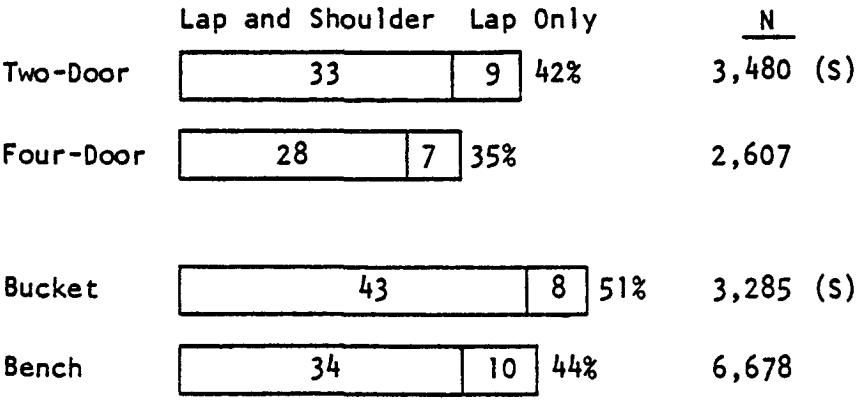


Figure 10

OBSERVED USAGE IN 1975 CARS
(Dec. 1974 - June 1975)



Detailed Usages, by Month

Figure 11, below, and Figures 12 and 13 on the following pages, provide supporting data for the charted findings on usage trends in Figures 1, 2, 4, and 5.

Figure 11

OBSERVED USAGE IN 1975 CARS

	Total	Verified Lap and Shoulder %	Verified Lap Only %
December 1974	917	37	11
January 1975	738	46	12
February	1,076	38	12
March	1,237	42	10
April	1,638	36	10
May	1,957	34	7
June	2,464	33	7

Model year verified by DMV's.

All data are for drivers and passengers combined.

Figure 12

OBSERVED USAGE IN 1974 CARS

	Total	Verified: Lap and Shoulder %	Verified: Lap Only %
February 1974	1,374	64	12
March	2,357	64	11
April	2,561	57	11
May	3,562	53	14
June	3,528	55	20
July	4,086	44	29
August	3,691	47	19
September	3,955	42	13
October	4,637	41	10
November	2,761	39	10
December	4,212	40	9
January 1975	3,764	42	13
February	3,941	38	10
March	4,425	37	10
April	5,110	33	9
May	4,535	35	8
June	5,165	35	8

Model year verified by DMV's.

All data are for drivers and passengers combined.

Figure 13

OBSERVED USAGE IN 1973 CARS

	Verified		
	Total	Lap and Shoulder %	Lap Only %
February 1974	749	3	24
March	1,079	3	23
April	1,018	5	23
May	988	3	21
June	951	6	22
July	869	4	20
August	879	4	24
September	893	5	22
October	850	5	23
November	833	3	28
December	785	8	19
January 1975	1,144	5	23
February	1,186	4	18
March	1,221	8	17
April	1,627	6	17
May	1,362	4	17
June	1,350	3	17

Model year verified by DMV's.

All data are for drivers and passengers combined.

PHASE II ATTITUDINAL STUDY

The primary body of data reported in this section is based on the following numbers of cases:

1,115 follow-up telephone interviews with owners/ drivers of 1975 model cars from the observation study

2,038 telephone interviews with Spring/Summer registered owners of 1975 model cars

In order to provide a sufficient number of cases to analyze the various types of warning systems in 1975 model cars, the above two samples have been combined to produce a total sample of 3,153 cases.

Observed vs. Reported Usage

Safety belt usage reported in the follow-up telephone interviews closely matches usage of all drivers of 1975 cars in the observation study. This close correspondence, which was also evident in the 1974 study, suggests that testimony from the interview study closely reflects actual behavior as recorded in the observation study.

Figure 14

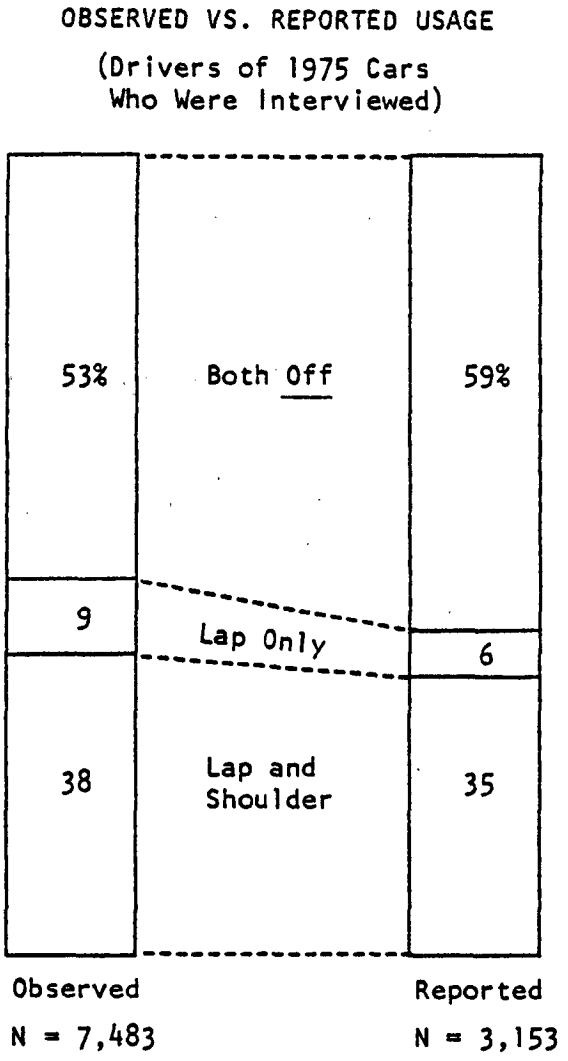
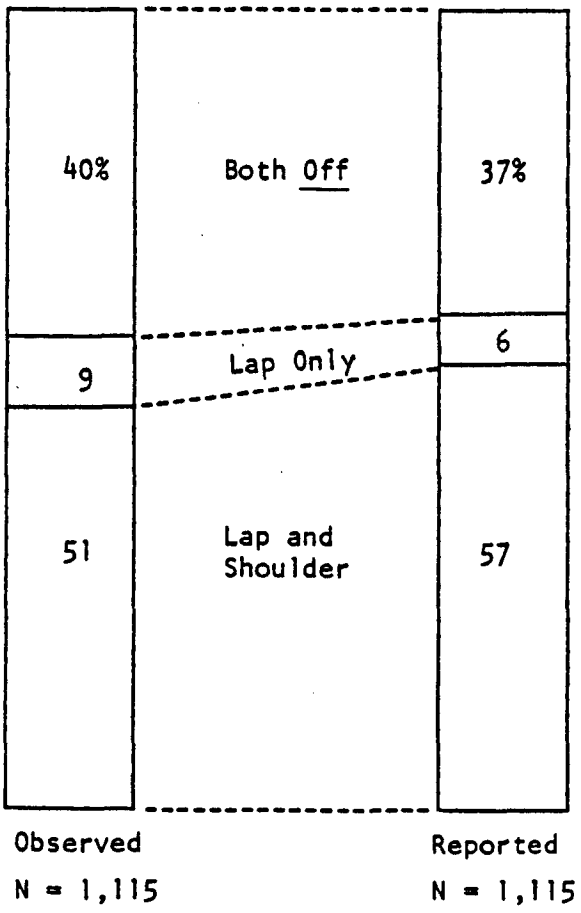


Figure 15, below, compares safety belt usage among drivers who were both interviewed in the follow-up study and observed in the General Population study. This matched sample also reflects a close correspondence between the observed usage data and the reported usage data.

Figure 15

OBSERVED VS. REPORTED USAGE

(Matched Sample of Drivers Interviewed and Observed)



Reported Usage by Type of System

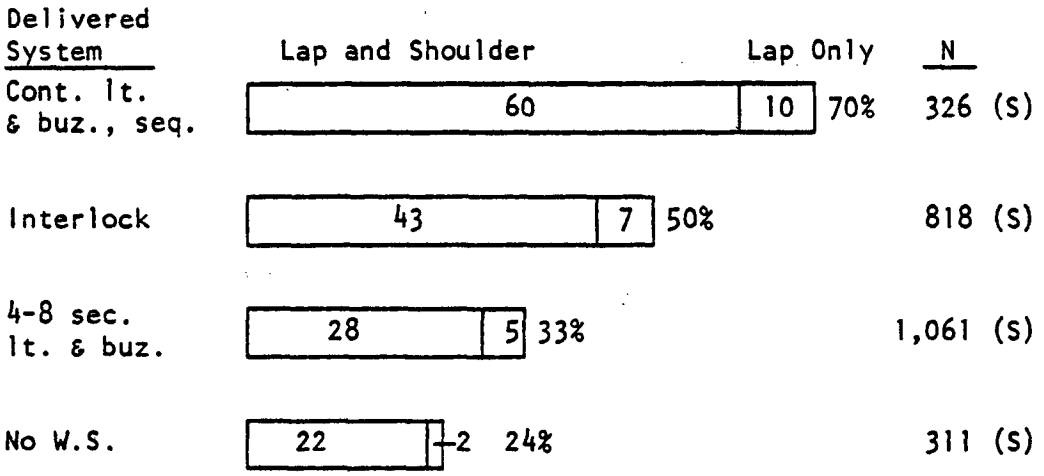
The model year 1975 offered a unique opportunity to study safety belt usage in U.S. passenger cars. Early in the model year, 1975 cars were shipped to dealers with a "sequential logic system" and a "starter-interlock." With the passage of P.L. 93-492 in 1974, which included a provision prohibiting a starter-interlock or a buzzer which sounded for more than 8 seconds, the 1975 models were being sold with a less sophisticated system which included a 4-8 second light and buzzer, without the "sequential logic system" -- the so-called "1975 warning system." Also, for a short period, cars were being shipped to dealers with the starter-interlock disconnected, but a continuous light and buzzer with sequential logic still intact.

As shown in Figure 16 below, reported usage in 1975 models varies considerably depending on the type of warning system in the car at the time it was delivered to the purchaser. Usage in terms of some protection (lap and shoulder or lap only) ranges from 70% for cars which were purchased with the continuous light and buzzer to 24% for cars which had no warning system at the time of delivery.

Figure 16

REPORTED USAGE IN 1975 CARS

(December 1975)



Reported vs. Observed Usage in 1975 Cars

Figure 17 compares, for each type of use-inducing system, reported and observed safety belt usage for a matched sample of drivers who were observed in the General Population study and also interviewed in the telephone follow-up study. Note the close correspondence between the observed usage data and the reported usage data for each of the four types of systems.

Figure 17

REPORTED VS. OBSERVED USAGE IN 1975 CARS*

Some Protection: Lap-and-shoulder or Lap-only

Delivered System	Reported %	Observed %	N
Cont. lt. & buz., seq.	70	65	137
Interlock	50	50	435
4-8 sec. lt. & buz.	33	44	192
No W.S.	24	31	122

*Drivers of 1975 cars who were both interviewed and observed

Rate of Defeat by Type of System

1975 cars delivered with the starter-interlock system experienced the highest defeat rate of the three use-inducing systems. Among drivers who purchased their car with an interlock system, only 52% report, some 10.7 months later, on average, that the car still had the interlock system intact. The corresponding figures for cars delivered with a continuous light and buzzer (average length of ownership 9.7 months) and for cars delivered with the 4-8 second light and buzzer (average length of ownership 7.7 months) are 80% and 96% respectively.

Figure 18

TYPE OF USE-INDUCING SYSTEM

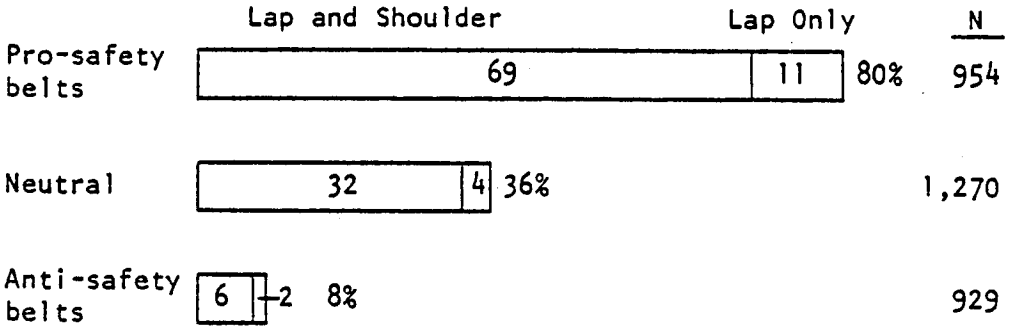
At Time of Interview	When Car Delivered: Interlock	Cont. Lt. & Buz., Seq.	4-8 Sec. Lt. & Buz.
N =	818	326	1,061
	100%	100%	100%
Interlock	(52%)	0%	0%
Cont. lt. & buz., seq.	6	(80)	0
4-8 sec. lt. & buz.	6	0	(96)
No W.S.	36	20	4
Avg. Mos. Owned	10.7	9.7	7.7

Attitude Index

In addition to the relationship between type of warning system and usage, there is a strong relationship between a person's attitude toward safety belts and his/her use of safety belts. As shown in Figure 19, the reported usage figure for owners/drivers of 1975 cars who are classified "pro-safety belts" is ten times greater than the reported usage figure for those classified "anti-safety belts."

Figure 19

REPORTED USAGE IN 1975 CARS

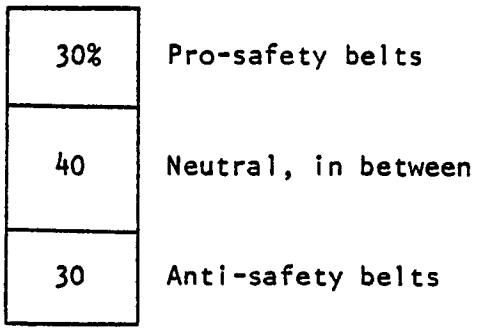


As a means of studying the relationship between attitudes toward safety belts and their usage, we developed a scoring technique based on the responses owners/drivers of 1975 cars gave to the four questions shown on the next page.

Respondents who scored from 7 to 9 points were classified "pro-safety belts." Those who scored 4 to 6 points were classified as "neutral," while any who scored 3 points or less were classified "anti-safety belts." Figure 20 shows the percentage of respondents in each of the three categories.

Figure 20

ATTITUDE TOWARD SAFETY BELTS



N = 3,153

	Response	Total Drivers	Score
• Would you describe your general impression of the safety belt warning system that consists of a light and buzzer as favorable, or unfavorable, or don't you have an impression one way or the other?	Favorable	50%	2
	Unfavorable	34	0
	No impression	16	1
• Has the safety belt system in your 1975 car increased your use of the safety belt, decreased your use of the safety belt, or hasn't it affected your use of the belt one way or the other?	Increased	27%	3
	Decreased	9	0
	Hasn't affected	62	2
	No opinion	2	1
• When you drive another car which has safety belts, would you say that you fasten the safety belt --	Almost always	34%	3
	More than half the time	9	2
	Less than half the time	11	1
	Almost never	14	0
	Never, or not reported	32	0
• Do you circumvent the safety belt warning system? By circumvent, we mean "fooling" the system such as by fastening the combination lap and shoulder belt behind you, hooking the belt to the door handle, etc.	Yes, do	7%	0
	No, do not	53	1
	Warning system defeated, or not reported	40	0

N = 3,153

Attitude Index vs. Socioeconomic Characteristics

There is little or no relationship between a person's attitude toward the use of safety belts and certain key socioeconomic or driver characteristics. Persons classified into the three groupings are fairly evenly divided in terms of sex, age, education, and the number of miles driven per year.

Figure 21

	Pro-Safety Belts	Neutral	Anti-Safety Belts
	100%	100%	100%
Men	60%	59%	59%
Women	40	41	41
Under 25 years of age	14%	16%	12%
25-39 years	34	34	29
40-49 years	19	18	20
50-59 years	18	18	20
60 years or over	14	13	17
College	58%	59%	52%
High school	37	36	42
Grammar school	4	3	4
Annual mileage:			
Under 10,000	34%	35%	34%
10,000-14,999	34	31	29
15,000-19,999	12	12	12
20,000 or over	17	18	21

Reported Usage by Attitude Index

Owners/drivers classified "pro-safety belts" report a high rate of usage for each of the three use-inducing systems. For this group, lap-and-shoulder or lap-only usage range from 94% when the delivered system was a continuous light and buzzer to 71% when the car was delivered with a 4-8 second light and buzzer. By comparison, owners/drivers classified "anti-safety belts" report relatively low usage regardless of the type of system in the car when they took delivery. The "neutral" group report particularly low usage for the 4-8 second light and buzzer, but fairly high usage for each of the other two systems.

Figure 22

REPORTED USAGE* BY ATTITUDE SCALE

	Delivered System			
	Interlock	Cont. Lt. & Buz., Seq.	4-8 Sec. Lt. & Buz.	N
All drivers	50%	70%	33%	2,205
Pro-safety belts	84%	94%	71%	809
Neutral	54%	69%	15%	883
Anti-safety belts	9%	13%	5%	513

(*Lap-and-shoulder or lap only)

Defeat and Circumvention

Generally speaking, the more complex and sophisticated the use-inducing system, the more likely is the system to be defeated or circumvented. As shown in Figure 23, the defeat and circumventing rates for the interlock and the continuous light and buzzer systems are considerably above those for the 4-8 second light and buzzer system. Recall, however, that while the latter system is not subject to widespread defeat or circumvention, it is, by far, the least effective as a use-inducing system.

Figure 23

DEFEAT AND CIRCUMVENTION

	Delivered System		
	Interlock	Cont. Lt. & Buz., Seq.	4-8 Sec. Lt. & Buz.
Neither defeat nor circumvent	48%	63%	91%
Defeat	36	20	4
Circumvent	12	16	4
More than half the time	9%	9%	3%
Less than half the time	3	5	2
Not reported	4	1	1

Reasons for Not Wearing Safety Belt

When asked to tell, in their own words, why they don't fasten the safety belt always or almost always when driving their 1975 car, drivers mention "short trips" and "physical discomfort" most often.

Figure 24

REASONS FOR NOT WEARING BELT

Drivers who report they do not usually wear belt	57%
Short length of trip	13%
Physical discomfort	12
Too lazy	9
Feeling of being trapped	8
Never formed habit	8
Inconvenient	8
Doubt its safety value	5

(Main reasons)

N = 1,809 out of 3,153

Note: Percentages in Figure 24 as well as those in Figures 25, 26, and 27 are based on all drivers interviewed.

Methods of Defeat/Who Defeated System

As shown in Figures 25 and 26, the 1975 warning system is usually defeated by disconnecting the occupant sensor plug, and this task is usually performed by either the dealer or the owner himself.

Figure 25

METHODS OF DEFEAT

Male drivers who report use-inducing system defeated	37%
Disconnect plug (occupant sensor)	11%
Cut wires	2
Other	6
Don't know	18

N = 694 out of 1,869

Figure 26

PERSON WHO DEFEATED SYSTEM

Male drivers who report use-inducing system defeated	37%
Dealer	12%
Self	10
Mechanic	2
Family member	1
Friend	1
Other, not reported	10

Methods of Circumventing Warning System

Drivers who circumvent the warning system report most often that they buckle the belt behind their back, buckle the belt and leave it buckled, or that they hook the belt on the door handle, knob, etc. These are the main methods mentioned by both owners of 1975 cars with an interlock system and owners of cars with a continuous light and buzzer.

Figure 27

INCIDENCE AND METHODS OF CIRCUMVENTING

	Present System	
	Interlock	Cont. Lt. & Buz., Seq.
Drivers who report circumventing present use-inducing system	20%	20%
Buckle belt behind back	6%	5%
Buckle belt and leave buckled	4	7
Hook belt on door handle, knob, etc.	4	4
Start engine without sitting on seat	1	1
Sit on or tuck in seat	1	*
Other	3	3
N =	86 out of 423	62 out of 314

*Less than ½%

Drivers who circumvent the warning system report most often that they learned themselves how to do it. When someone else showed them, it was most often another family member or a friend.

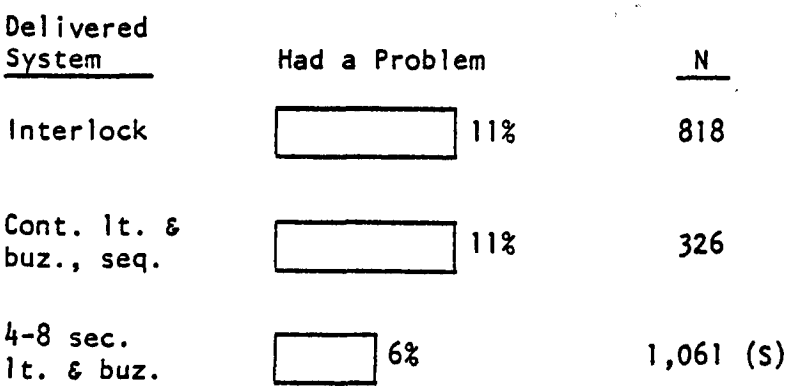
Malfunction/Failure of Warning System

Among owners/drivers of 1975 cars delivered with either a starter-interlock or a continuous light and buzzer, about one in ten (11%) reports a malfunction or mechanical failure in the system. About one in sixteen (6%) reports that he/she had a problem with the 4-8 second light and buzzer system.

> "Have you experienced any malfunctions or mechanical failures with the safety belt system? PROBE: Any problems for which the manufacturer might be responsible?"

Figure 28

REPORTED MALFUNCTION
OR FAILURE OF SAFETY BELT SYSTEM



Drivers who report that they have had a malfunction or mechanical failure with the warning system more often characterize the problem as "minor" or "bothersome" than "serious." Also, most say either the dealer has taken care of the problem or that it had not been corrected at the time of interview.

Instruction for Use of Safety Belt

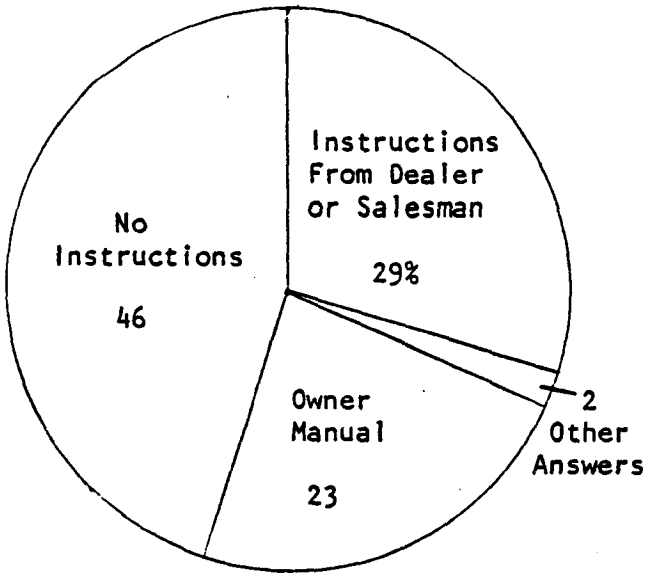
Overall, slightly more than half (54%) of owners say they received instructions on how the combination lap and shoulder belt should be worn in a 1975 car; 46% say they received no instruction.

For all makes of cars combined, 29% of drivers report that they received personal instructions from the dealer or salesman. Another 23% say they received wearing instructions from the owner's manual -- apparently some people either consider the manual as a form of personal instruction or failed to note the reference to personal instruction in the question.

Proportions who report receiving personal instructions from the dealer by make of car owned are: Chrysler 30%, GM 30%, Ford 27%, AMC 22%, and Foreign 34%.

Figure 29

INSTRUCTIONS FOR PROPER USE
OF COMBINATION LAP AND SHOULDER BELT



N = 3,153

Comfort of Lap Belt and Shoulder Harness

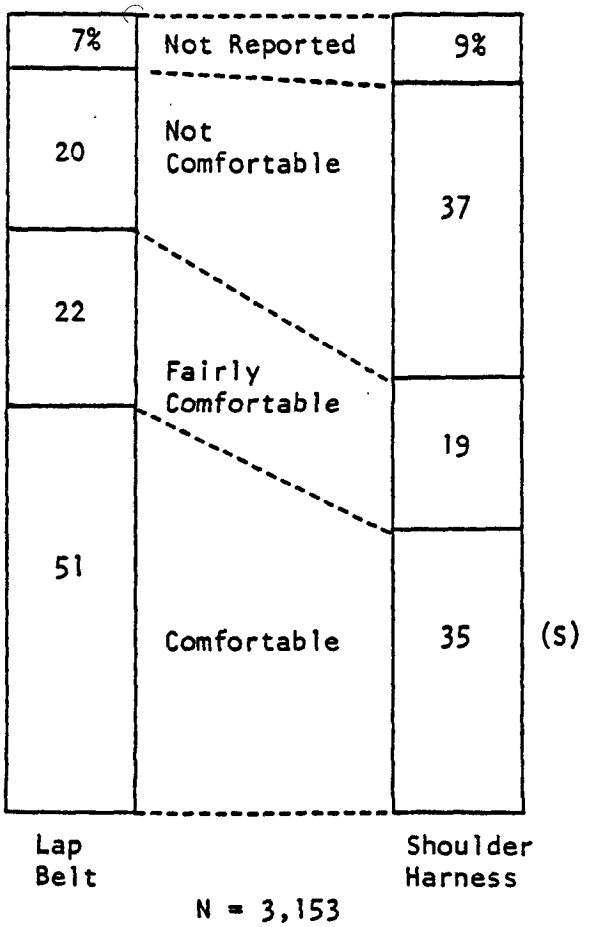
As previously noted, the type of use-inducing system and a person's attitude toward restraint systems in general are two major factors affecting safety belt usage. A third factor which has a major influence on safety belt usage relates to how comfortable or uncomfortable people perceive the lap belt and shoulder harness to be. Drivers were asked the following two questions relating to the comfort aspects of safety belts:

> "When you wear the lap belt portion of the combination safety belt in this (1975) car, is it -- comfortable to wear, fairly comfortable, or not comfortable?"
>
> "How about the shoulder harness? Would you say it is -- comfortable to wear, fairly comfortable, or not comfortable?"

As shown in Figure 30, drivers are much more critical of the shoulder harness than they are of the lap belt. More than seven in ten (73%) rate the lap belt in their 1975 car "comfortable" or "fairly comfortable." By comparison, only a little more than half (54%) rate the shoulder harness "comfortable" or "fairly comfortable."

Figure 30

PERCEIVED COMFORT OF SAFETY BELTS IN 1975 CARS



Comfort of Belts by Manufacturer

Foreign makes and American Motors cars appear to have an edge over other makes when owners are asked to tell how comfortable the lap belt and shoulder harness are in their 1975 car. Among owners of foreign makes, 83% characterize the lap belt and 68% characterize the shoulder harness as "comfortable" or "fairly comfortable." The ratings for foreign cars are significantly higher than those for General Motors, Ford, and Chrysler. Percentage differences between the foreign makes and AMC cars, however, are much closer and are not statistically significant.

Figure 31

PERCEIVED COMFORT OF SAFETY BELTS IN 1975 CARS

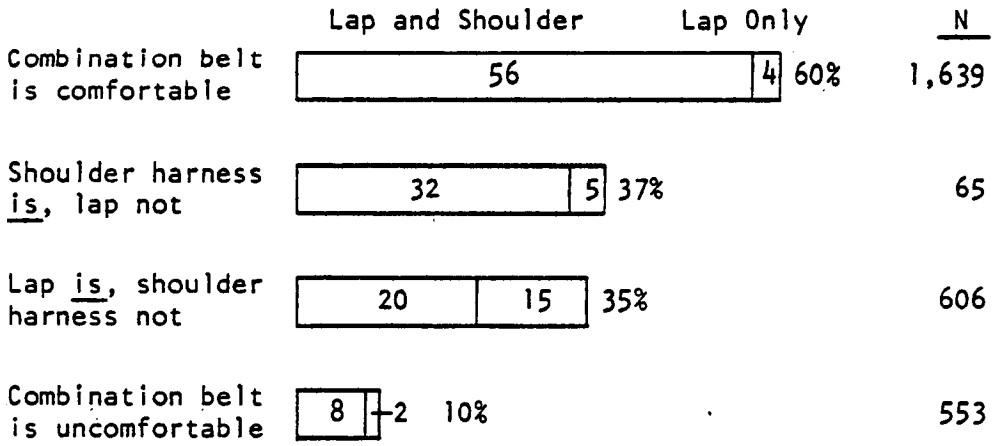
	Say Comfortable to Wear		
	Lap Belt	Shoulder Harness	N
Foreign	83%	68%	421
AMC	76%	60%	203
G.M.	72%	54%	1,518
Ford	70%	48%	661
Chrysler	68%	48%	334

Usage by Comfort Factor

As shown in Figure 32, usage and attitudes, in terms of perceived comfort of safety belts, are correlated. Among drivers who say that the combination belt is comfortable, 56% report that they usually wear the lap belt and shoulder harness. By comparison, the usage rate for those who feel the belt is uncomfortable is only 8%. Those who characterize one part of the combination as comfortable and the other as uncomfortable show usage rates which are in between the two extreme groups.

Figure 32

REPORTED USAGE BY COMFORT FACTOR



Perceived Comfort by Attitude Index

As might be expected, drivers classified as pro-safety belts are much more likely than those classified as neutral or anti-safety belts to say the lap belt and the shoulder harness are comfortable to wear. The proportion who regard the shoulder harness as comfortable is particularly low for drivers who are classified as anti-safety belts.

Figure 33

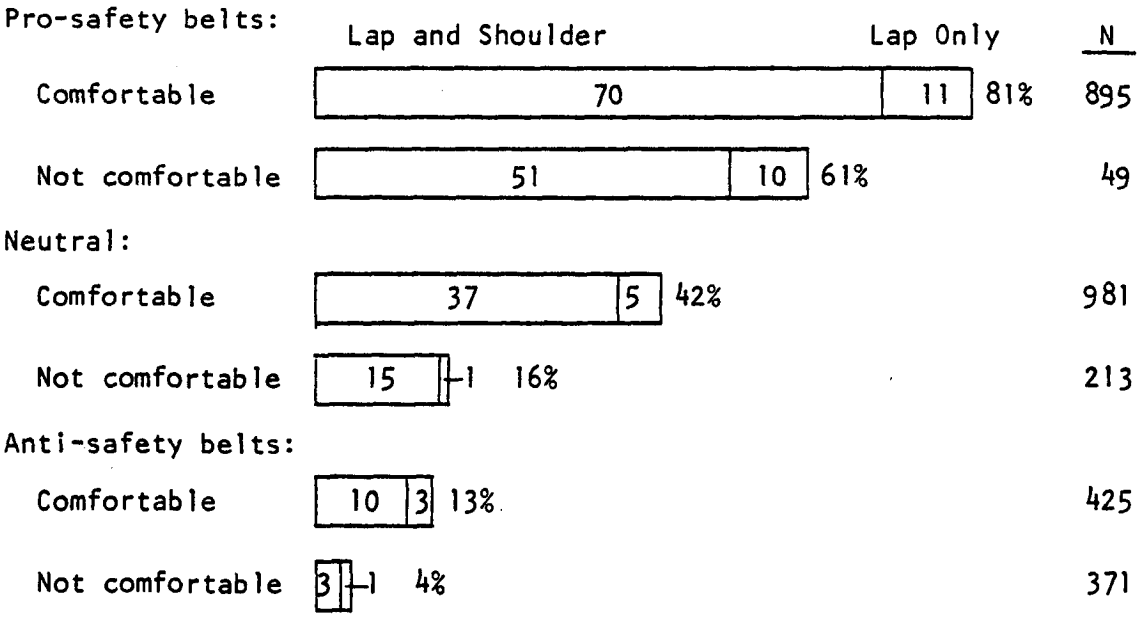
PERCEIVED COMFORT OF SAFETY BELTS
IN 1975 CARS

	Say Comfortable to Wear		
	Lap Belt	Shoulder Harness	N
Pro-safety belts	94%	78%	954 (S)
Neutral	77%	56%	1,270 (S)
Anti-safety belts	46%	28%	929 (S)

The importance of the comfort factor as it relates to seat belt usage is clearly evident in Figure 34 opposite. Regardless of one's basic attitude toward the use of safety belts, he is much more likely to wear the belt if he considers it to be comfortable than if he considers it to be uncomfortable. The reported usage rates in the neutral and anti-safety belt categories are from two and a half to three times greater among those who consider the lap belt comfortable as among those who consider the lap belt not comfortable. Even among pro-safety belt people, there is a marked difference in reported usage between the two subgroups.

Figure 34

REPORTED USAGE BY COMFORT OF LAP BELT



Accessibility of Safety Belt

Two out of five drivers say that the accessibility of the safety belt in their 1975 car, that is, being able to take hold of the buckle, pull it out of the reel and fasten it, presents some sort of a problem for them. Most, however, consider it to be only a "minor" one.

The proportions of drivers who consider accessibility either to be a problem or no problem are fairly evenly distributed among the four U.S. automobile manufacturers and among foreign makes.

> "How would you rate the safety belt on accessibility -- that is, being able to take hold of the buckle, pull it out of the reel and fasten the belt? Would you say this operation presents -- no problem at all, a minor problem, a moderate problem, a severe problem?"

Figure 35

	Total	AMC	Chrysler	Ford	G.M.	Foreign
No problem at all	55%	51%	48%	54%	58%	56%
A problem	41	46	48	42	38	42
Minor	27	30	28	27	26	29
Moderate	9	8	12	10	8	8
Severe	5	8	8	5	4	5
Not reported	4	3	4	4	4	2

Comfort/Convenience Problems

When asked to describe any problems related to the comfort and convenience of the safety belt in their 1975 car, about seven out of ten drivers (68%) answer, "No problems." The proportion who indicate that they have had no problem on this point is about at the same level for each of the four U.S. car manufacturers and foreign makes as a whole.

The problems listed in the table below were obtained in response to the following question:

> "Could you describe any particular problem you have had related to comfort and convenience aspects of the safety belt in your 1975 car?"

Drivers who cite a problem frequently mention one that relates to the locking mechanism -- specifically, that the belt retractor locks and restrains body movement or that the belt locks when being pulled from the retractor. Also, some drivers complain that the shoulder belt rubs across their neck or face. A greater effort on the part of dealers to instruct people as to the proper way to wear the belt or how to adjust it for maximum comfort should help to reduce the number of problems related to the comfort and convenience aspects of safety belts.

Figure 36

MAIN PROBLEMS WITH COMFORT/CONVENIENCE OF 1975 BELTS

	Total	AMC	Chrysler	Ford	G.M.	Foreign
No, nothing, no specific problems	68%	73%	67%	67%	69%	68%
Shoulder belt rubs across face or neck	5	2	6	7	5	7
Shoulder belt retractor locks and restrains body movement	4	3	5	5	4	3
Problem with lap belt locking	3	3	3	3	3	3
Difficult to get into back seat -- belt in way	3	*	1	4	3	2
Fastening the two parts of the belt together (buckling) presents a problem	2	2	2	3	1	2
Problem with shoulder harness locking	2	2	2	3	3	3
Dislike buzzer	2	2	3	3	2	2
Dislike material in belt -- too rough, chafes skin, etc.	1	*	*	1	1	1
N =	3,153	203	334	661	1,518	421

APPENDIX

- Number of Vehicle Occupants (Observation Study)
- Source of Telephone Interviews (Observation Study)
- Source of Telephone Interviews (Special Study)
- Observation Form
- Questionnaire

Number of Vehicle Occupants
Observation Study
December 1974 - August 1975

(Read Percentages Across)	Base	Number of Occupants One	Two	Three	Four+	Average Occupants Per Car
Total Cars Observed	26,920	66%	27	5	2	1.44
Model Year 1975	6,906	67%	27	4	2	1.42
1974	13,850	66%	27	5	2	1.45
1973	6,164	67%	25	5	3	1.45
AMC	783	66%	26	5	3	1.45
Ford	8,539	66%	27	4	3	1.45
Chrysler	2,302	68%	26	4	2	1.43
GM	13,487	66%	27	5	2	1.45
Foreign	1,609	69%	25	5	1	1.39
Subcompact	2,893	67%	27	4	2	1.41
Compact	5,477	66%	28	4	2	1.43
Intermediate	6,603	66%	27	5	2	1.45
Standard	4,767	67%	25	5	3	1.46
Luxury	1,875	67%	26	5	2	1.43

Note: 1. Data based on twenty percent random sample of all cars observed in 19 U.S. cities from December 1974 thru August 1975.

2. Model year not verified by DMV's.

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Source of Telephone Interviews

Observation Study

One thousand one hundred fifteen (1,115) interviews with owners/drivers from the observation sample were completed. The following table shows the number of names available, the losses for various reasons, and the final yield:

	No.	Percentages	
Names from DMV's (Dec. 1974 - June 1975 observations verified as to 1975 model year)	7,483	100%	--
Less: Rental cars, business owned, government agencies, etc.	-3,182	43	--
Eligible names	4,301	57	100%
Less: Unlisted or non-published telephone numbers	-2,128	29	49
Less: Unable to contact after four calls	- 554	7	13
Less: Refused interview	- 504	6	12
Completed interviews	1,115	15	26

Source of Telephone Interviews

Special Study

Two thousand thirty-eight (2,038) interviews were completed with owners of 1975 cars from the special sample of names furnished by NHTSA. Following are the outcomes:

	No.	Percentages	
Names from DMV's (special sample of 1975 model cars)	9,682	100%	--
Less: Rental cars, business owned, government agencies, etc.	-2,532	26	--
Eligible names	7,150	74	100%
Less: Unlisted or non-published telephone numbers	-3,863	40	54
Less: Unable to contact after four calls	- 677	7	9
Less: Refused interview	- 572	6	8
Completed interviews	2,038	21	29

51274

GENERAL POPULATION
OBSERVATION FORM

OMB No. 04S73034
Expires 12/31/75

Observer _____ City _____

Intersection _____

Location No.: _____

Day _____ Date _____ Month _____

Time Started _____ 1 AM 2 PM Time Ended _____ 1 AM 2 PM

Conditions 1 Daylight 2 Twilight 3 Darkness
1 Dry 2 Rain 3 Snow, Ice

#	Year 73 3 74 4 75 5	License Number	Car Make (Model)	Sex 1 Male 2 Female		Harness and Lap Belt 1 Both on 2 Harness off, belt on 3 Both off		Seat 1 Bench 2 Bucket	Total Number of People*	
				Driver	Pass	Driver	Pass		Front Seat	Back Seat
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
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35										
36										

* Include driver and all other persons in front seat count.

51274
111875

DRIVER QUESTIONNAIRE

(Telephone Interview)

OMB No. 04S73034
Expires Dec. 31, 1975

Assignment Number

TIME STARTED _____

Introduction

"Hello, my name is _____ from Opinion Research Corporation, Princeton, New Jersey. We're conducting a survey among owners and drivers of 1975 model cars regarding their use of and attitudes toward the Safety Belt System. We are interviewing both men and women."

"Do you or does anyone in your household own a 1975 model car?"

1 YES
2 NO → DISCONTINUE INTERVIEW

"May I please speak to the main driver of this car, that is, the person in your household who drives it most often?" IF MAIN DRIVER NOT HOME, FIND OUT WHEN HE/SHE IS EXPECTED IN AND CALL BACK AT THAT TIME. IF TWO DRIVE EQUALLY, OR NEARLY EQUALLY, YOU MAY INTERVIEW EITHER ONE.

1. During what month and year did you first begin to drive the 1975 model car?

1974	1975
1 SEPTEMBER	1 JANUARY
2 OCTOBER	2 FEBRUARY
3 NOVEMBER	3 MARCH
4 DECEMBER	4 APRIL
	5 MAY
	6 JUNE
	7 JULY
	8 AUGUST
	9 SEPTEMBER
	10 OCTOBER

2. About how many miles have you, yourself, driven the 1975 car? Just your best estimate.

1 UNDER 1,000
2 1,000 - 2,999
3 3,000 - 4,999
4 5,000 - 6,999
5 7,000 - 8,999
6 9,000 - 9,999
7 10,000 OR OVER
8 DON'T KNOW

3. Is this car a two door or four door model?

1 TWO DOOR
2 FOUR DOOR

4. Would you describe your general impression of the Safety Belt Warning System that consists of a light and buzzer as favorable, or unfavorable, or don't you have an impression one way or the other?

1 FAVORABLE
2 UNFAVORABLE
3 NO IMPRESSION

5. On most trips where you do the driving in the 1975 car, would you say that you fasten the safety belt --

1 ALMOST ALWAYS (GO TO Q. 7)
2 MORE THAN HALF THE TIME
3 LESS THAN HALF THE TIME
4 ALMOST NEVER
5 NEVER

6. Why don't you fasten the safety belt always or almost always when driving your 1975 car?

1 PHYSICAL DISCOMFORT: DON'T LIKE THE WAY IT FEELS, IT HURTS, UNCOMFORTABLE, RUBS NECK OR FACE

2 SHORT LENGTH OF TRIP OR IN AND OUT OF CAR TOO OFTEN

3 OPPOSED ON PRINCIPLE: DON'T WANT TO BE FORCED TO USE BELT, WANT FREEDOM OF CHOICE

4 GENERALLY NEGATIVE ATTITUDE TOWARD SAFETY BELTS

5 GENERALLY NEGATIVE ATTITUDE TOWARD WARNING SYSTEM

→ PROBE: FOR ITEMS 4 & 5

6 FEELING OF BEING TRAPPED: CONFINING, RESTRICTIVE, FEEL TIED IN

7 DIFFICULT TO OPERATE: MECHANICALLY HARD TO OPERATE, HARD TO CONNECT BUCKLE -- HAVE TO TRY SEVERAL TIMES, TAKES TOO LONG TO FASTEN

8 CONFUSING TO OPERATE: HARD TO UNDERSTAND, CAN'T TELL HOW TO BUCKLE IT UP, CONFUSING ON MATCHING BELT AND BUCKLE

9 WRINKLES OR SOILS CLOTHING

10 NEVER FORMED HABIT

11 INCONVENIENT

12 TOO LAZY, TOO MUCH TROUBLE

13 DOUBT VALUE AS SAFETY MEASURE

14 PREFER TO START ENGINE BEFORE FASTENING SAFETY BELT

15 BE ABLE TO START ENGINE FOR SPECIAL PURPOSE SUCH AS WARM-UP, WORK ON ENGINE, MOVE IN DRIVEWAY, ETC.

16 ALWAYS/USUALLY FASTEN BELT -- DON'T NEED WARNING SYSTEM

17 A CHILD RESTRAINT PROBLEM:

_____
(WRITE IN SPECIFIC PROBLEM)

18 OTHER (Specify) _____

7. Has the safety belt system in your 1975 car increased your use of the safety belt, decreased your use of the safety belt, or hasn't it affected your use of the belt one way or the other?

1 INCREASED
2 DECREASED
3 HASN'T AFFECTED
4 NO OPINION

8. When you drive another car which has safety belts, would you say that you fasten the safety belt --

1 ALMOST ALWAYS
2 MORE THAN HALF THE TIME
3 LESS THAN HALF THE TIME
4 ALMOST NEVER
5 NEVER
6 OTHER _____

9. After you have put on the safety belt in your 1975 car, do you usually wear the shoulder harness over your shoulder, under the arm, or behind your back?

1 OVER SHOULDER (GO TO Q. 11)
2 UNDER ARM
3 BEHIND BACK
4 OTHER _____

5 DON'T PUT ON ANY BELT (GO TO Q.11)

10. Why do you usually wear the shoulder harness (under the arm) (behind the back)? (DON'T READ ANSWERS)

1 PHYSICAL DISCOMFORT: DON'T LIKE THE WAY IT FEELS, IT HURTS, UNCOMFORTABLE, RUBS NECK OR FACE

2 FEELING OF BEING TRAPPED: CONFINING, RESTRICTIVE, FEEL TIED IN

3 DIFFICULT TO OPERATE: MECHANICALLY HARD TO OPERATE, HARD TO CONNECT BUCKLE -- HAVE TO TRY SEVERAL TIMES, TAKES TOO LONG TO FASTEN

4 CONFUSING TO OPERATE: HARD TO UNDERSTAND, CAN'T TELL HOW TO BUCKLE IT UP, CONFUSING ON MATCHING BELT AND BUCKLE

5 WRINKLES CLOTHING

6 OPPOSED ON PRINCIPLE: DON'T WANT TO BE FORCED TO USE BELT, WANT FREEDOM OF CHOICE

7 SHORT LENGTH OF TRIPS, SO BELT NOT NEEDED

8 GENERALLY NEGATIVE ATTITUDE: DON'T LIKE IT

9 DON'T UNDERSTAND PROPER WAY TO WEAR SHOULDER HARNESS: THOUGHT THIS WAS THE WAY TO WEAR IT

0 SHOULDER HARNESS DIDN'T SEEM TO HOLD ME BACK (MISUNDERSTANDING OF INERTIA REEL)

X SHOULDER HARNESS WOULDN'T STAY ON SHOULDER: TOO LOOSE (COMFORT CLIP MAY HAVE BEEN IMPROPERLY ADJUSTED)

Y OTHER (Specify) _____

11. At the present time, do you have to fasten the safety belt in order to start the engine in your 1975 car, or can you start the engine without fastening the safety belt?

1 HAVE TO FASTEN TO START ENGINE (GO TO Q. 24)
2 CAN START WITHOUT FASTENING
3 DON'T KNOW

12. With the engine running and the car in gear, does the "Fasten Belt" reminder light go on, if you don't fasten the safety belt?

1 NO, DOES NOT GO ON (GO TO Q. 14)
2 YES, LIGHT GOES ON
3 DON'T KNOW

(IF "YES, LIGHT GOES ON" OR "DON'T KNOW" ON Q. 12, ASK):

13. Does the light go on and stay on until the belt is fastened or does it go off after a few seconds?

1 LIGHT STAYS ON
2 LIGHT GOES OFF
3 DON'T KNOW

14. How about the buzzer, does that go on if you don't fasten the safety belt?

1 NO, DOES NOT GO ON (GO TO Q. 16)
2 YES, BUZZER GOES ON
3 DON'T KNOW

(IF "YES, BUZZER GOES ON" OR "DON'T KNOW" ON Q. 14, ASK):

15. Does the buzzer go on and stay on until the belt is fastened, or does it go off after a few seconds?

1 BUZZER STAYS ON
2 BUZZER GOES OFF
3 DON'T KNOW

16. Now, I'd like to know how the safety belt system operated when you bought or first took delivery of your 1975 car.

At that time, did you have to fasten the safety belt in order to start the engine, or could you start the engine without fastening the safety belt?

1 HAD TO FASTEN TO START ENGINE (GO TO INSTRUCTION OVER Q. 21)
2 COULD START WITHOUT FASTENING
3 DON'T KNOW

17. When you took delivery or first used your 1975 car, did the "Fasten Belt" reminder light go on when you put the car in gear and the safety belt was not fastened?

1 NO, DID NOT GO ON (GO TO Q. 19)
2 YES, LIGHT WENT ON
3 DON'T KNOW

(IF "YES, LIGHT WENT ON" OR "DON'T KNOW" ON Q. 17, ASK):

18. Did the light go on and stay on until the belt was fastened, or did it go off after a few seconds?

1 LIGHT STAYED ON
2 LIGHT WENT OFF
3 DON'T KNOW

19. How about the buzzer, did that go on when the belt was not fastened?

1 NO, DID NOT GO ON (GO TO INSTRUCTION OVER Q.21
2 YES, BUZZER WENT ON
3 DON'T KNOW

(IF "YES, BUZZER WENT ON" OR "DON'T KNOW" ON Q. 19, ASK):

20. Did the buzzer go on and stay on until the belt was fastened, or did it go off after a few seconds?

1 BUZZER STAYED ON
2 BUZZER WENT OFF
3 DON'T KNOW

INTERVIEWER: REFER BACK TO Q. 12 AND Q. 14. IF "NO, DOES NOT GO ON" CIRCLED ON EITHER Q. 12 OR Q. 14, ASK QUES. 21, 22, AND 23. OTHERWISE SKIP TO Q. 24.

21. Apparently the safety belt warning system in your 1975 car has been defeated or disconnected. Do you happen to know how this was done?

1 PULLED PLUG
2 CUT WIRES
3 OTHER _____
4 DON'T KNOW

22. Was the system defeated or disconnected by yourself, a family member, a friend, an auto dealer, or who?

1 RESPONDENT
2 FAMILY MEMBER
3 FRIEND
4 MECHANIC
5 DEALER
6 OTHER _____

23. During what month was the warning system disconnected?

_____ (GO TO Q. 28)

24. Do you circumvent the safety belt warning system? By circumvent, we mean "fooling" the system such as by fastening the combination lap and shoulder belt behind you, hooking the belt to the door handle, etc.

1 YES, DO
2 NO, DO NOT (GO TO Q. 28)

25. How often do you circumvent or "fool" the warning system so that you don't have to fasten the safety belt? Would you say --

1 ALMOST ALWAYS
2 MORE THAN HALF THE TIME
3 LESS THAN HALF THE TIME
4 ALMOST NEVER

26. How are you able to start and drive the car without fastening the safety belt? Specifically, just what do you do? (DON'T READ ANSWERS)

1 BUCKLE BELT AND LEAVE IT THAT WAY

2 BUCKLE BELT BEHIND MY BACK EACH TIME I START THE CAR

3 HOOK BELT ON DOOR (HANDLE, ARM REST, WINDOW CRANK, ETC.)

4 BUCKLE BELT, PUT BEHIND SEAT, IN SEAT, UNDER SEAT, ETC., AND LEAVE IT THAT WAY

5 CONNECT PASSENGER BELT TO DRIVER'S BUCKLE

6 START CAR WITHOUT SITTING ON SEAT

7 DON'T BUCKLE BELT BUT SIT ON OR TUCK IN SEAT

8 OTHER (Specify) _____

27. Did you learn how to circumvent or "fool" the safety belt warning system yourself or did someone else show you? Who?

1 RESPONDENT
2 FAMILY MEMBER
3 FRIEND
4 MECHANIC
5 DEALER OR SALESMAN (AUTO)
6 OTHER _____

28. Have you experienced any malfunctions or mechanical failures with the safety belt system? PROBE: Any problems for which the manufacturer might be responsible?

1 YES, HAVE
2 NO, HAVE NOT (GO TO Q. 31)

29. Do you consider this problem to be a minor one, a bothersome one, or a serious one?

1 MINOR
2 BOTHERSOME
3 SERIOUS

30. Was the problem corrected by dealer who sold the car or by someone else? Who?

1 DEALER
2 RESPONDENT
3 FAMILY MEMBER
4 MECHANIC -- OTHER THAN DEALER'S
5 PROBLEM HAS NOT BEEN CORRECTED
6 OTHER (Specify):

_____

31. Have you received personal instructions on how the combination lap and shoulder belt should be worn in a 1975 car?

1 YES
2 NO, HAVE NOT (GO TO Q. 33)

32. Who instructed you as to the proper way to wear the combination lap and shoulder belt, the car dealer or someone else? Who?

1 DEALER OR SALESMAN
2 FAMILY MEMBER
3 FRIEND
4 INSTRUCTION MANUAL IN CAR
5 OTHER (Specify):

_____

33. When you wear the lap belt portion of the combination safety belt in this car, is it --

1 COMFORTABLE TO WEAR
2 FAIRLY COMFORTABLE (OR)
3 NOT COMFORTABLE

34. How about the shoulder harness? Would you say it is --

1 COMFORTABLE TO WEAR
2 FAIRLY COMFORTABLE (OR)
3 NOT COMFORTABLE

35. How would you rate the safety belt on accessibility -- that is, being able to take hold of the buckle, pull it out of the reel and fasten the belt? Would you say this operation presents --

1 NO PROBLEM AT ALL
2 A MINOR PROBLEM
3 A MODERATE PROBLEM
4 A SEVERE PROBLEM

36. Was your 1975 car manufactured by American Motors, Chrysler, Ford, or General Motors?

1 AMERICAN MOTORS
2 CHRYSLER
3 FORD
4 GENERAL MOTORS
5 FOREIGN MAKE
6 OTHER _____

37. Could you describe any particular problem you have had related to comfort and convenience aspects of the safety belt in your 1975 car? (DON'T READ ANSWERS)

1 NO, NOTHING, NO SPECIFIC PROBLEM

2 FASTENING THE TWO PARTS OF THE BELT TOGETHER (BUCKLING) PRESENTS A PROBLEM

3 SHOULDER BELT RUBS ACROSS FACE OR NECK

4 PROBLEM WITH LAP BELT LOCKING; LOCKS BEFORE LAP BELT IS ALL THE WAY OUT; COMES UP SHORT, ETC.

5 PROBLEM WITH SHOULDER HARNESS LOCKING; LOCKS BEFORE SHOULDER HARNESS IS ALL THE WAY OUT; COMES UP SHORT, ETC.

6 SHOULDER BELT RETRACTOR LOCKS AND RESTRAINS BODY MOVEMENT

7 DIFFICULT TO GET INTO BACK SEAT -- BELT IN WAY

8 DISLIKE MATERIAL IN BELT -- TOO ROUGH, CHAFES SKIN, ETC.

9 DISLIKE BUZZER

X OTHER (Specify) _____

38. 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.
WAIST SIZE _____ INC.

39. What was the last grade in school you completed?

1 8TH GRADE OR LESS
2 HIGH SCHOOL INCOMPLETE (GRADES 9, 10, 11)
3 HIGH SCHOOL COMPLETE (12TH GRADE)
4 SOME COLLEGE OR COLLEGE COMPLETE
5 REFUSED

40. In which of these age groups are you?

1 20 OR UNDER
2 21 - 24
3 25 - 39
4 40 - 49
5 50 - 59
6 60 OR OVER
7 REFUSED

41. Which one of these statements comes closest to your total family income before taxes for the last year?

1 UNDER $7,000
2 BETWEEN $7,000 AND $10,000
3 BETWEEN $10,000 AND $15,000
4 BETWEEN $15,000 AND $20,000
5 OVER $20,000
6 REFUSED

42. Which type area do you currently live in -- a city, suburb, small town, or rural area?

1 CITY
2 SUBURB
3 SMALL TOWN
4 RURAL AREA
5 OTHER (Specify): _____
6 DON'T KNOW

43. About how many miles do you, yourself, drive a year?

1 UNDER 10,000 MILES
2 10,000 - 14,999
3 15,000 - 19,999
4 20,000 OR OVER

44. RECORD SEX OF RESPONDENT:

1 MALE
2 FEMALE

45. FROM NAME AND ADDRESS LISTING SHEET, THIS INTERVIEW IS --

1 GROUP A
2 GROUP B
3 GROUP C

(WC) NUMBER IS --

1
2
3
0 (NO NUMBER GIVEN)

"This completes the interview. Thank you very much for helping us with the survey."

CITY _____ STATE _____

NAME OF INTERVIEWER _____ CODE NO. _____

DATE OF INTERVIEW _____ TIME ENDED _____

TOTAL TIME _____

THANK YOU VERY MUCH.