PUBLIC ATTITUDES ON RESTRAINT
SYSTEM USAGE:
AN ANNOTATED BIBLIOGRAPHY

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### INTRODUCTION

This bibliography has been divided into two main sections:

U.S. studies dealing with attitudes toward air bags or air bags and seat

belts combined, and studies dealing with seat belts only. The later

section is subdivided into U.S. and non-U.S. literature. All parts

are then arranged chronologically.

In some cases, annotations have been taken directly from the authors' abstracts, occasionally revised or with additional comments. Generally, however, the comments and opinions are those of the compiler of this bibliography.

#### **OBSERVATIONS**

Interesting observations can be made from the literature on public attitudes toward safety belts or air bags. The usual negative reasons for not approving of seat belts come up time and again. These include the disbelief that belts actually protect you in a crash, their discomfort and inconvenience, and the idea that they can trap you in your vehicle.

In the few studies of people's reactions to air bags, the only repeated negative factor associated with air bags is their cost. However, one study (done by the Insurance Institute for Highway Safety) actually shows that many people would be willing to add up to \$20 per month to their car payments (over 36 months, or \$720) if 18,000 lives per year could be saved.

Canadian and Australian studies consistently show approval

of mandatory safety belt usage laws, with approval increasing following the law's enactment. Generally, there are no feelings in these countries that the government has no right to interfere with personal freedom. However, in countries where there are no use laws, such as the U.S., both usage patterns and attitudes have changed little over the years. (The exception to this is, of course, the period during which cars in the U.S. were equipped with ignition interlocks and usage rates increased; however, the public remained opposed to the interlock.)

As may be expected, in many studies one can see a positive correlation between seat belt usage and positive attitudes toward them. So while a large percentage of the population agrees that safety belts are a valid safety device, a very small percentage actually uses them.

Because public information campaigns encouraging safety belt usage have increased usage rates little -- if at all -- it would appear that the only means of actually increasing usage rates is by legislation. The previously-mentioned IIHS survey learned that 47% of those interviewed favored mandatory safety belt legislation for the U.S.

Clearly, the issue of personal freedom and government intervention plays a much greater role in influencing attitudes of U.S. citizens than it has in countries enacting mandatory safety belt legislation. A recent "call-in" poll taken by a Detroit newspaper showed over 80% objecting to such legislation for the U.S. While this was hardly a scientific study, and conflicts with what was

found by IIHS, it does indicate one sentiment of a vocal segment of the American public espousing personal liberty. This segment has already backed legislation which has struck down mandatory helmet use laws for motorcyclists in several states.

What is suggested by this, to the compiler of this bibliography, is the need for a public information campaign aimed not so much at getting people to "buckle-up," but at changing people's attitudes about the safety value of belts, as well as their increased comfort and convenience, in the hope of making people more receptive to use laws.



## U.S. STUDIES -- AIR BAGS OR AIR BAGS/SEAT BELTS

A consumer case for the air bag and the problem of public acceptance. L. Dodge. Center for Auto Safety, Washington, D.C. 1972. 7 p. 10 ref. Report Number: SAE 720427. Presented at the International Conference on Passive Restraints, 2nd, 22-25 May 1972, Detroit.

Impositions placed on vehicle occupants by safety belts and safety belt use are substantial and will increase as systems to encourage or force belt usage are incorporated. By comparison, the known impositions of air bags are minor, but to these must be added other requirements, the extent of which are not yet well-known. Substantial fleet testing of air bags will clarify most of these inconveniences. Automobile manufacturers and the National Highway Traffic Safety Administration have failed to generate public support for the air bag. Lack of consumer support will continue unless greater resources are allocated to equip fleet vehicles with air bag systems so that a reliable record of air bag efficacy can be compiled. Types of oppostion to air bags are outlined and possible sources defined.

A consumer viewpoint on car restraint systems. L. R. Barnes. Motor News, Detroit. 1972. 20 p. Report Number: SAE 720429. Presented at the International Conference on Passive Restraints, 2nd, 22-25 May 1972, Detroit.

A 1972 AAA survey of Michigan motorists revealed a strong dislike of airbags, a preference for seat belts/shoulder harnesses if choice must be made, and a strong feeling that it is not the business of government to mandate airbags or belt use. The author points out the need for a natural effort to persuade people to use seat belts, and attempts to forecast the future if airbags are mandated without explaining them.

Passenger car occupant restraint alternatives demonstration and display: a consumer research study. R. S. Baxter. Chrysler Corporation. 1972. 12 p. Report Number: SAE 720430. Presented at the International Conference on Passive Restraints, 2nd, 22-25 May 1972, Detroit.

Selected audiences of licensed drivers in Kansas City were subjected to demonstrations of three different restraint systems: lap/shoulder belts, extra crushable foam-filled panels, and air bags. Preferences were indicated before demonstrations, and at two later points. Initially, 40% preferred belts, 19% air bags, and 27% foam panels. This shifted to 82% for belts, 5% for bags, and 11% for panels after the filmed performance demonstrations. Inflatable air bags were the last choice for 69%.

Consumer attitudes toward automobile safety measures: a cluster analytic approach. F. Wiseman, R. Lieb and M. Moriarty. Northwestern University. In E.D. Goldfield, ed. American Statistical Association. Social Statistics Section. Proceedings. 1973. American Statistical Association, Washington, D.C., 1974. Pp. 438-442.

A national survey was conducted in 1973 to determine consumer attitudes toward a number of existing and proposed automobile safety programs. Fifty percent of those surveyed indicated that they would pay \$750 for a package that would make their car "fatality proof." 70% were opposed to the 1976 air bag requirement; while they were divided as to whether they would purchase an optional air bag at a cost of \$100.

Air cushion restraint system - national consumer research study. Market Research Group, Inc., Farmington Hills, Mich. 7 May 1975. 50 p. Sponsored by General Motors Corporation, Market Research Department, Detroit.

A telephone survey of Oldsmobile owners was designed to collect data on people's attitudes about potential purchase of air bags and perception of degree of safety provided by air bags. Although there was disagreement on overall perception of comparative car safety, there was virtual uniformity of opinion on benefits of air bags. The effect of accident involvement had only a modest effect on improving attitudes toward air bags. Maximum buying interest (33%) occurred at a suggested price of \$100, but decreased dramatically (to 6%) at a \$200 suggested price. Finally, only 23% agreed that air bags should be pushed hard for general use. The majority of the document is composed of statistical tables.

T.J. Hooper and the air bag. A.R. Hricko. Insurance Institute for Highway Safety. (1976?). 16 p. 14 ref.

Several arguments put forth by automobile manufacturers against air bags - including their reliability and their cost - are taken to task by this representative of IIHS, whose pro-air bag stand is well-known. Also mentioned are legal precedents, including recent court cases, which have a bearing on air bags.

Increased motor vehicle crash protection: public preferences and willingness to pay. L.S. Robertson. Insurance Institute for Highway Safety. Aug 1976. 13 p. 19 ref.

In a national poll taken in July, 1976, 77% of new car buyers expressed a preference for passive occupant protection. Only 15% exclusively preferred increased active protection. New car buyers expressed a willingness to add \$12 per month to their car payments to save 6,000 lives, and up to \$20 per month to save 18,000 lives. 47% of the respondents favored state belt use laws, 50% were opposed.

Driver attitudes toward restraints for greater safety in the operation of an automobile. A summary report. Yankelovich, Skelly, and White, Inc., New York. Sept 1976. 106 p. Sponsored by Motor Vehicle Manufacturers Association.

This summer 1976 national survey measured level of knowledge and information about auto restraint systems, attitudes toward those restraints, and reactions to alternatives such as belt use laws, air bags, and nonpayment of insurance claims if belts are not fastened at time of accident. 43% found none of those alternatives acceptable, 26% chose use laws, 15% chose air bags at a significant price increase, and 7% chose the insurance claim clause. Included are interesting statements on public perception of what air bags and seat belts can do for you or to you.

General Motors Corporation response to proposal to amend MVSS 208--occupant crash protection. OST docket 44, notice 76-8. General Motors Corporation. 17 Sept 1976. 300 p. approx.

A section in this docket submission deals with GM's perception of public attitudes on restraint systems. GM believes that public acceptance of restraint systems depends on how comfortable and convenient they are to use. Usage rates are higher on later model cars with better restraint systems. GM also feels that higher belt usage rates would be achieved if the public were better informed on the advantages of seat belts. Need for public support before mandating belts or air bags is stressed.

Decision concerning motor vehicle occupant crash protection. W. T. Coleman Jr. U.S. Transportation Department, Secretary of Transportation. 6 Dec 1976. 84 p.

One of the items considered in Secretary Coleman's decision was public acceptance of restraint systems. He concluded that such acceptance would be significantly increased by providing an opportunity for people to become familiar with these systems before a decision is made as to whether to require them in every car. The experience of the seat belt interlock is cited as an example of not assessing public opinion before mandating an occupant protection system.

Submissions to Secretary Adams' Passive Restraint Docket 74-14, Notice 8. Insurance Institute for Highway Safety. 31 May 1977. 69 p. 7 ref.

A small section of this docket submission deals with opinion polls of public preferences for crash protection. Cited is a Harris poll which showed increasing willingness to pay the cost of good crash protection. Another poll conducted for IIHS revealed that prospective new-car buyers would add up to \$20 per month to their car payments to save 18,000 lives per year. Detailed statistical tables are not provided; only conclusions are given. (See August 1976 paper by L.S. Robertson for details on this poll.)

## U.S. STUDIES -- SEAT BELTS

A comparison of attitudes toward several cross-chest safety belt systems after operational experience. R.K. McKelvey. U.S. Public Health Service, Environmental Control Administration, Washington, D.C. 1970. 30 p.

Through questionnaire responses obtained after 3 months' experience, a comparison was made of the attitudes of Arizona Highway Patrol officers toward several conventional factory-installed cross-chest safety belt systems and an inertia reel mounted system. The weight of positive responses was received by the inertia reel system. This system was apparently less inhibitive of normal movements in operation of the vehicle. Moreover, by more convenient coupling and uncoupling, the inertia reel system permitted the officers to get in and out of these cars more rapidly and contributed to a lessened concern about the restrictive aspects of the equipment.

Effectiveness of safety belt warning and interlock systems. Final report. J.B. Cohen and A S. Brown. National Analysts, Inc., Philadelphia. April 1973. 76 p. Report Number: DOT/HS 800 859. Sponsored by National Highway Traffic Safety Administration.

Rental cars in Fayetteville, North Carolina were equipped with four different seat belt systems: (1) detachable shoulder and lap belt, no warning system; (2) same with warning system; (3) non-detachable shoulder and lap belt with inertial reel, warning and logic system; and (4) same with starter/interlock system. Drivers of cars with systems (1) and (2) voiced more favorable attitudes toward seat belts and warning systems than did other system respondents.

"Why I don't weat seat belts." R. Bauman. California Highway Patrolman, Vol. 37, No. 8, Oct 1973, pp. 16, 38-39.

The author lists reasons commonly given for not using seat belts, then presents arguments against these reasons.

An attempt to measure and change drivers' attitudes and behavior toward seatbelt use. W. Bütynski. Vermont University, Burlington. Oct 1973. 176 p. 154 ref. Order Number: University Microfilms, 74-2812. Sponsored by National Safety Council, Chicago.

The aims of this study were to develop an attitude questionnaire and an unobtrusive behavior measure technique useful in repeated assessment of attitudes and behaviors related to seatbelt use and to develop and test the effectiveness of different persuasive communications on seatbelt attitudes and behavior. Attitude measures were obtained 14 days before and 14 days after exposure to one of five types of persuasive communication. A change was demonstrated in seatbelt behavior for drivers in the experimental groups as compared to the control group. The behavior changes evidenced offer encouragement to investigators concerned about the possibilities for developing more effective persuasive communications. Seatbelt behavior was found to be significantly and positively related to the intention to wear seatbelts even though seatbelt use was not related to drivers' feelings about whether they "should" wear seatbelts.

Vehicle occupant restraints; a review of legislation, public attitudes, use requirements and the cost-effectiveness of motor vehicle occupant restraint systems. V. J. Perini. Highway Users Federation for Safety and Mobility, Washington, D.C. Nov 1973. 12 p.

The author reviews several past surveys of driver seat belt attitudes, citing many of the stated reasons for non-use of restraining devices. He concludes that the public will not buckle-up voluntarily, and adds that Congress appears convinced that mandatory laws are the most effective means to increase safety belt use. Estimates on number of lives saved by using restraint systems are included.

National safety belt usage conference. 28-30 November 1973, Washington, D.C. Proceedings. 1974. 127 p. Sponsored by National Highway Traffic Safety Administration.

Several papers in these proceedings deal with consumer views on belt use laws and on achieving citizen support, including legislative support, for such laws. Means of changing attitudes are also discussed. One panel is devoted to physicians' views on belt usage.

Ohioans tell how they feel about safety belts. Traffic Safety, Vol. 74, No. 1, Jan 1974, p. 21.

Results of an attitude survey on a random sample of Ohio residents are described in brief. 61.8% were in favor of a belt use law; 38.2% against. 91.4% would favor the law if their insurance rates dropped. Only 8.5% of the people who reported not using belts said that safety belts do not help if they are involved in an accident.

An attitudinal study of seat belts in school buses. D.E. Hinkle and J.W. Dillon. Virginia Polytechnic Institute and State University, Blacksburg. <u>Journal of Traffic Safety Education</u>, Vol. 21, No. 3, April 1974, pp. 27-28, 39, 8 ref.

While this study analyzed people's attitudes regarding mandatory seat belt usage in school buses, it is unique in that it looked at different populations - drivers, parents, and students. In general, drivers felt buses were safe and did not favor belts; parents and students, on the other hand, thought belt usage would increase bus safety. Generally, the three groups were nearly evenly split on the issue of whether mandatory use of seat belts is an infringement on their rights (for students: 44%, is infringement; 56%, is not infringement).

Buckle up - the smart thing to do. V. J. Perini Jr. Highway Users Federation for Safety and Mobility. Highway User Quarterly, Winter 1974, pp. 18-24.

The author first reviews various means of encouraging seat belt use-public information programs, legislation, etc. He then describes a recent Hartford Automobile Club survey on mandatory belt usage. 26% of the respondents believed there should be a belt usage law. A New York Auto Club Survey showed 64% opposed mandatory belt use legislation. The low survey response rate indicated a high degree of apathy concerning this issue. Included also are figures from various sources on suggested life savings by belt usage, and statistics on accidents involving belted and non-belted occupants.

Safety belt usage: survey of cars in the traffic population. Opinion Research Corporation, Princeton. Dec 1974. 41 p. Report Number: DOT/HS 801 331. Sponsored by National Highway Traffic Safety Administration.

Following observation of seat belt usage, interviews were conducted with a sub-sample of the observed population. On overall attitude toward the interlock system, the population was nearly split (42% for; 54% against). Reasons for defeating the ignition interlock, perceived belt comfort, and other factors are also considered. The report is comprised entirely of tables with no interpretation of the statistical data.

Safety belt interlock system: usage survey. Final report. A Westefeld and B.M. Phillips. Opinion Research Corporation, Princeton. May 1975. 148 p. Report Number: DOT-HS 801 594. Sponsored by National Highway Traffic Safety Administration.

This research measured the effectiveness of the interlock system in increasing safety belt usage. Three studies were conducted: (a) among rental car customers at U.S. airports ( to obtain data early in the 1974 model year); (b) among rental car customers at Toronto Airport, where different types of use-inducing systems were studied; and (c) among owners of private cars in the general vehicle population. Customers returning 1974 model rental cars at airports were observed for safety belt usage, and a subsample of nonusers interviewed to determine the circumstances and attitudes surrounding their nonusage. Study (c) was conducted in 19 U.S. cities by having observers note the usage patterns and sex of the driver and right outboard passenger. License numbers afforded a means of conducting a follow-up telephone interview with the driver, covering practices and attitudes with regard to safety belt usage and the interlock system. Opinions on belt discomfort and negative interlock attitudes correlated with belt usage.

Factors associated with safety belt use in 1974 starter-interlock equipped cars. L.S. Robertson. Insurance Institute for Highway Safety, Washington, D.C. <u>Journal of Health and Social Behavior</u>, Vol. 16, No. 2, June 1975, pp. 173-177, 15 ref.

Interview data were obtained from 394 drivers whose belt use or non-use had been observed in 1974 starter-interlock equipped cars. Usage was not related to education, race, comfort-convenience rating of belts, or having a friend injured in a crash--factors that had been found related to belt use in previous research. Despite favorable ratings of the efficacy of belt use, over 40% of 1974 car drivers were not using belts and 29% claimed the interlock was one of the least liked features of their new cars.

Restraint system use and misuse. J.R. Cromack and R.L. Mason. Southwest Research Institute, San Antonio. In D.F. Huelke, ed. American Association for Automotive Medicine. 20th Conference. Proceedings. AAAM, 1976. Pp. 367-381, 6 ref. Sponsored by National Highway Traffic Safety Administration.

Objective and subjective data pertaining to utilization of restraint systems in a carefully drawn sample of 1973-1976 model year cars in traffic accidents in south central Texas were collected. Occupants' attitudes and practices regarding restraint systems were fairly consistent, with slightly less than half both utilizing restraints and expressing acceptance for belt restraints. Restraint system preferences, attempts to defeat restraint systems, reasons for attempts, and who accomplished the defeat are also discussed.

Consumer reaction to seat belt comfort and convenience. W. E. Woodson. Man Factors, Inc., San Diego. 13 July 1976. 46 p. Presented at the National Motor Vehicle Safety Advisory Council, meeting, 12-14 July 1976, Washington, D.C.

The purpose of the study was to point out that seat belt discomfort and inconvenience fall high on the list of reasons most people give for not wanting to wear seat belts. The author suggests that while it should be relatively easy to improve belt systems, the automobile industry has not been responsive to changing the systems to fit people instead of car interior design.

Passive vs. active safety belt systems in Volkswagen Rabbits: a comparison of owner use habits and attitudes. Final report. A. Westefeld and B.M. Phillips. Opinion Research Corporation, Princeton. Aug 1976. 90 p. Report Number: DOT/HS 801 958. Sponsored by National Highway Traffic Safety Administration, Office of Driver and Pedestrian Research.

The overall objective of this research was to measure usage of, and attitudes toward, the passive restraint system, compared with the active restraint system on 1975 Volkswagen Rabbits. Interviews were conducted with two samples of VW Rabbit owners--those who purchased a Rabbit with the passive system and those who purchased a Rabbit with the active system. One phase of interviews measured safety belt usage after purchasers had owned their Rabbits for eleven months or longer. Results show that belt usage was about 80 percent in cars sold with passive belts and operating interlock systems after almost one year of ownership. As with usage, owners of passive systems have more favorable attitudes toward belt usage than owners of active systems.

Safety belt interlock system usage survey. Final report. A. Westefeld and B.M. Phillips. Opinion Research Corporation, Princeton. Aug 1976. 75 p. Report Number: DOT/HS 801 957. Sponsored by National Highway Traffic Safety Administration, Office of Driver and Pedestrian Research.

This research was intended to measure the effectiveness of various use-inducing systems in increasing safety belt usage. Drivers' reactions to systems on 1975 model cars were studied. A telephone interview among owners/drivers of observed 1975 model cars was conducted along with telephone interviews with a sample of Spring/Summer registered owners of 1975 model cars. 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.

Analysis of comfort and convenience factors in improved restraint systems. Technical report (final). S. Gordon, A. Kondo and D. Breedon. National Highway Traffic Safety Administration, Safety Research Laboratory, Riverdale, Md. Dec 1976. 65 p. 12 ref. Report Number: DOT/HS 802 113.

Thirty volunteer subjects tried and evaluated six different occupant restraint systems. Judgments were made on their relative comfort and convenience. Most of the test subjects found the restraint systems tested were better than those in their own cars. With these improved restraints, there was a projected 21% increase in belt usage.

Seat belt education program. Post-advertising test summary report. Lincorp Research, Inc., Southfield, Mich. June 1977. 24 p. Sponsored by Motorists Information, Inc., Detroit.

The advertising campaign conducted in Grand Rapids, Michigan created more favorable attitudes toward safety belts, belt use, development of safe driving habits, etc., according to a midpoint survey. The final attitude study showed that this trend continued to increase.

# Non-U.S. STUDIES -- SEAT BELTS

Seat belts: contextual factors and bias of reported use; an experimental study. G. Fhanér and M. Hane. Statens Trafiksakerhetsverk, Solna. 21 Aug 1972. 41 p. 17 ref. Sponsored by Swedish Renault.

It was hypothesized that if the observed discrepancy between reported and observed belt use was due to a social desirability response, the discrepancy would be reduced if respondents knew their use was being observed. Several studies to test this were untertaken, but it was concluded that knowledge of observation had no effect on reported use or on opinion of a usage law. It was suggested that a social desirability response was, therefore, not very important for reports of belt usage or attitude.

The effect of mandatory seat belt use in New South Wales, Australia. J.M. Henderson and K. Freedman. New South Wales Department of Motor Transport, Traffic Accident Research Unit. In American Association for Automotive Medicine. 17th Conference. Proceedings. AAAM, 1973. Pp. 53-69, 5 ref.

Public reaction and attitudes towards seat belts and a mandatory seat belt law were surveyed and compared with a similar pre-law survey. The main change has been that people now perceive the benefits of belts to be higher than used to be the case. However, people still believe belts should be made more comfortable and convenient to use.

Investigation into use of safety belts. L. Oranen. LIIKENNETURVA, Helsinki. 1973. 14 p.

The purpose of the study was to investigate the percentage of use of safety belts and the opinions of drivers about factors related to their use, as well as making the use of safety belts obligatory. The study determined that belts are used infrequently--7% to 28% in highway driving. According to the opinion survey, the majority of drivers using belts use them mainly on long trips or at higher speeds. Making belt use mandatory was supported by 62% of those interviewed, more often by young people than by old, and by those with more driving experience.

A quasi-clinical strategy for safety research: a case-study of attitudes to seat belts in the City of Regina, Saskatchewan, Canada. C. K. Knapper, A. J. Cropley, and R. J. Moore. Saskatchewan University, Regina, Department of Psychology. 1973. 276 p. 76 ref. Sponsored by Canadian Ministry of Transport, Ottawa.

The investigation began with a series of interviews with experts or opinion leaders in the traffic safety area (city officials, police, safety councils members, etc.). This provided an initial source of hypotheses on belt usage and on experts' attitudes toward seat belts. Second came interviews with select subjects at the University of Regina. Finally, a representative sample of the Regina population was interviewed. These phases are described at length. Overwhelming evidence was found of people's acceptance of the safety value of seat belts, despite the small percentage of people who actually wear them. The two usual negative opinions occurred: seat belts are a nuisance or are uncomfortable, and people fear being strapped down. Findings suggest that if people are told to fasten their belts (as on a commercial airplane), they will comply with little argument. Many other aspects of belt usage and general traffic safety attitudes are discussed.

Sicherheitsgurte aus psychologischer Sicht. (Safety belts from psychological point of view.) K. J. Höfner. Kuratorium für Verkehrssicherheit, Verkehrspsychologisches Institut, Wien. Zeitschrift für Verkehrssicherheit, 19. Jahrgang 1973, III. Quartal, Heft 3, pp. 163-175, 29 ref. (English summary.)

Included among the topics discussed in this German article are the problems arizing in connection with mandatory seat belt legislation.

Seat belts: relations between beliefs, attitude and use. G. Fhaner and M. Hane. Statens Trafiksäkerhetsverk, Driver License and Research Department, Solna. 15 Feb 1973. 87 p. 31 ref. Sponsored by Swedish Renault, Inc.

Using a model of attitudes toward seat belt use, a questionnaire was constructed to obtain beliefs relevant for seat belt usage. Analysis yielded a belief pattern that was interpreted in terms of five factors, "discomfort," "worry," "risk," "effect," and "inconvenience." The model appeared useful since an independent measure of attitudes could be predicted from a linear combination of individual factor scores. The belief pattern model was validated by a series of five observations. On the basis of the obtained relationships, a model of seat belt use was suggested in which conceptions about belt discomfort and about effects of belts in accidents were regarded as determinants of usage.

L'introduction de l'utilisation obligatoire de la ceinture de sécurité - l'historique d'un cas. [The introduction of mandatory safety belt usage - a case study.] J. Lefranc. France, Délégation à la Sécurité Routière, Paris. Oct 1973. 22 p. 4 ref. Presented at the International Conference on Driver Behaviour, 1st, 8-12 Oct 1973, Zurich.

Public opinion regarding seat belt usage was surveyed, using a sample of 1000 drivers over the age of 21, before the introduction of a mandatory belt use law. 79% were in favor of seat belts, while only 57% said they usually wore them. Opinions on acceptance of the law were not gathered.

Seat belts: "A good idea but they are too much bother." An analysis of the relationship between attitudes toward seat belt and reported seat belt use. Final report. B.W.E. Bragg. Toronto University, Department of Psychology. Dec 1973. 87 p. 31 ref. Sponsored by Canadian Ministry of Transport, Road and Motor Vehicle Traffic Safety Office, Ottawa.

The first goal of this survey was to examine the relationship between attitudes toward seat belts and reported usage and see if additional information about an individual's perceived likelihood of being in an accident or an individual's perception of the expectations of others' reactions to seat belt users increased the correspondence between attitudes and behavior. An increase in the relationship between attitudes and reported behavior occurred when the accident factor was considered; there was no change when the other factor was involved. The survey results did show, however, that emphasis should be placed on developing a more convenient belt system.

Society's seat-belt switcharound. Autosafe, No. 13, 1974, pp. 21-24.

Results of a post-seat belt law survey show that Australians now regard the wearing of seat belts as perfectly normal behavior, compared to the anti-belt feelings in years before the law went into effect. The article goes on to analyze how this change in attitude came about, and mentions data collected on usage and attitude patterns over the past several years.

Verbraucherurteil über das passive Gurtsystem von Volvo. [Consumer opinion concerning passive belt system of Volvo.] N. Bohlin and S. Pilhall. ATZ, 76. Jahrgang, Nr. 5, May 1974, pp. 157-160, 2 ref.

Passive, three-point belt systems were fitted in two cars and tested by a cross-section of the Swedish population, whose opinions were subsequently recorded, studied and evaluated. Most of the 325 test subjects found the system extremely comfortable and preferable to conventional seat belts.

Compulsory seat belts: a survey of public reaction and stated usage. D. Freedman, R. Wood, and M. Henderson. New South Wales Department of Motor Transport, Traffic Accident Research Unit, Sydney. June 1974. 30 p. 5 ref.

Eighteen months after seat belt use became mandatory in New South Wales, people were interviewed on their seat belt usage and attitudes. This survey was a repeat of one taken prior to the law, with a comparable sample. The follow-up survey was designed to determine the extent to which the law influenced wearing habits and attitudes. Reported wearing rate had increased dramatically. The high level of compliance with the law was found in every group examined. Attitudes expressed by respondents indicated that seat belts are now fully accepted by the majority of the community. After the law, people were more likely to believe seat belts to be important to safety; negative attitudes were rare. In addition, 8 out of 10 people were in favor of the law. Reasons for the law's impact on behavior and attitudes, the relevance of enforcement activity, and the future role of propaganda are discussed in the light of these survey results.

A review of three studies attempting to relate reported seat belt usage to seat belt attitudes and other variables. (Examen de trois études visant à trouver les correlations entre ce que l'on sait de l'utilisation des ceintures de sécurité et les attitudes vis-a-vis la ceinture de sécurité et d'autres variables.) R.M. Heron. Canadian Ministry of Transport, Road and Motor Vehicle Traffic Safety Office, Ottawa. Oct 1975. 84 p. 9 ref.

A review of three studies found reported seat belt use associated with presence of a warning system, good belt design, higher education or occupational status, newer cars, or attendance at driving school. An economic analysis showed that the less well educated driver, having a lower occupational status and less income, owns an older car equipped with an uncomfortable belt; at the same time he is less inclined to expose himself to or to absorb accurate information on belts. The belt user is safety and risk conscious, while the nonuser reports discomfort and non-effectiveness. Data on seat belt legislation suggest that most people favor compulsory seat belt usage and that, of those who are not habitually wearing belts now, most would increase usage under a law.

Seat belts: changing usage by changing beliefs. G. Fhaner and M. Hane. Uppsala University. Journal of Applied Psychology, Vol. 60, No. 5, Oct 1975, pp. 589-598, 11 ref.

A model to predict seat belt use, based on a linear combination of beliefs about discomfort when wearing a seat belt and beliefs about injury-reducing effects of seat belts, was tested. Employees of a large steel company, nonusers of seat belts, were randomly assigned to one of six groups receiving one or a combination of the following treatments:

(a) verbal information stressing the role of seat belts in reducing injury; (b) nonverbal practice in seat belt use; (c) verbal information irrelevant to seat belt use; or (d) receiving no treatment. Groups receiving seat belt information had the most favorable posttest beliefs and displayed the greatest increase in seat belt usage, although the effects generally decreased over time.

Evaluating the effects of seat belt information and legislation in Ontario. L.P. Lonero, N. Gardner, H. Pang, J. Pierce, M. Toomer, and P. Young. Ontario Ministry of Transportation and Communications, Systems Research Branch, Toronto. In D.F. Huelke, ed. American Association for Automotive Medicine. 20th Conference. Proceedings. AAAM, 1976. Pp. 416-429, 3 ref.

This paper discussed the effect of a public information campaign on changing people's attitudes toward proposed mandatory seat belt legislation in Ontario. Acceptance of the law went from 40.9% in March 1975 (pre-law) to 48.1% in January 1976 (when the law went into effect). Usage in Toronto, on the other hand, went from 19.3% in October 1975 to 79% by March 1976. The article concentrated on usage rates and accident statistics, rather than on attitude changes.

A quasi-clinical strategy for investigating attitudes in the transportation domain. C.K. Knapper and A.J. Cropley. Regina University, Department of Psychology. In P. Stringer and H. Wenzel, eds. Transportation Planning for a Better Environment. New York, Plenum Press, 1976. Pp. 349-360, 18 ref. Sponsored by Canadian Ministry of Transport, Ottawa.

In this article, the authors concentrate on explaining their methods in attitudinal measurement; specifically, by means of pre-pilot and pilot studies before an actual survey. Validation of this method was done using the seat belt issue as an example. One conclusion made was that a high proportion of the public accepted that the government is a legitimate authority which has a right to issue directives concerning driver behavior.

Adoption of shoulder belt use and changes in driver attitudes in response to the Ontario seat belt legislation: report on aggregate data. G.J.S. Wilde and L. Cunningham. Queen's University, Kingston. May 1976. 31 p. 13 ref. Sponsored by Ontario Ministry of Transportation and Communications, Downsview and Canadian Ministry of Transport, Ottawa.

Shoulder belt use of drivers was observed in periods preceding and following the Ontario seat belt wearing legislation. Changes in shoulder belt use over time were studied in relation to changes in drivers' opinions of the probable effectiveness of the law in saving lives and attitudes towards implementation of the law. It was seen that both believed effectiveness and favorability with regard to the seat belt law dropped when December 1975/January 1976 responses were compared with those of a year earlier. However, compliance with the behavior stipulated in the law showed a significant increase in that same period of time. The findings gave rise to several suggestions for future mass media education and information programs as well as for subsequent studies of driver behavior and attitudes.

Ontario's buckle-up law is paying off. P.G. Green. Canada Safety Council, Ottawa. <u>Traffic Safety</u>, Vol. 76, No. 7, July 1976, pp. 8-11, 34-35.

In conjunction with Ontario's impending seat belt use legislation, a nationwide poll of public opinion was taken. Throughout Canada, 77% of those responding approved of the government protecting people from themselves. Some credit for making the usage law acceptable to people is given to an extensive public information campaign and to media support. Opposition to the law was led by a small, but very vocal, minority; average citizens complained at first, then complied.

Attitudes of Canadians towards legislation requiring mandatory use of seat belts. R.M. Heron. Canadian Ministry of Transport, Road and Motor Vehicle Traffic Safety Office, Ottawa. Sept 1976. 107 p. 18 ref.

A telephone survey of 4,107 Canadians was carried out in the fall of 1975 to determine the extent of acceptance of legislation which would make the wearing of seat belts compulsory. In all provinces, except Nova Scotia, the majority of citizens reported that, given the opportunity, they would vote for the introduction of such a law. Loss of freedom of choice and fear that seat belts are dangerous were the first and second most frequently cited of four possible reasons for objecting to a seat belt law. It is noted that discomfort and inconvenience have been mentioned as the primary reasons for non-use in previous studies.

Drivers use of seat belts as a function of attitude and anxiety. S. Ashton and P. Warr. Sheffield University, MRC Social and Applied Psychology Unit (England). British Journal of Social and Clinical Psychology, Vol. 15, No. 3, Sept 1976, pp. 261-265, 8 refs.

It is shown that drivers' reported and actual use of seat belts are predictable from their opinions about the comfort and effectiveness of belts. These relationships are, however, moderated by anxiety about possible accidents, in that low-anxiety drivers exhibit a stronger association between attitude and behavior than do high-anxiety drivers.

Attitudinal factors in the non-use of seat belts. C.K. Knapper, A.J. Cropley and R.J. Moore. Regina University, Department of Psychology. Accident Analysis and Prevention, Vol. 8, No. 4, Dec 1976, pp. 241-246, 13 ref.

A method for the assessment of public opinions was developed and used to investigate attitudes towards seat belts. It was found that most people accept that seat belts are effective, despite the fact that a large majority usually or always drive with belts unfastened. This failure to use seat belts appeared to result primarily from a failure to acquire the habit of buckling up. It did not reflect distrust of seat belts or any very deep-seated systems of attitudes and beliefs. It was concluded that public-education programs will not increase use of seat belts, but that measures are called for which take the decision to wear a belt out of the hands of individual drivers and passengers.

Victoria and the seat belt law, 1971 on. D.C. Andreassend. Road Safety and Traffic Authority, Victoria. Human Factors, Vol. 18, No. 6, Dec 1976, pp. 593-600, 2 ref.

This reports studies the effects of the compulsory seat belt wearing law on wearing rates, driver attitudes, and accident patterns. Of those interviewed who always wear belts, 46.1% said they did so for safety reasons; 20.9% said they wore belts because it is the law. There was a tendency for more female drivers to give the law as a reason for wearing a seat belt.

The acceptability of car seat belts I.A.R. Galer. Loughborough University of Technology, Institute for Consumer Ergonomics. 1977. 7 p. 12 ref. Report Number: SAE 770186. Sponsored by Transport and Road Research Laboratory, Crowthorne. Presented at the Society of Automotive Engineers, International Automotive Engineering Congress and Exposition, 28 Feb-4 March 1977, Detroit.

A program is described which sought to establish why seat belt usage is low, the reactions of people to restraint systems, and ways to increase usage. It was concluded that, despite the acceptance of their safety value, usage would not be even close to 100% without the impetus of legislation. In conjunction with this legislation, however, the public feels the need for improvement in belt design. The report also concluded that effective propaganda may reduce antagonism, and some forms of passive restraint system may provide the best solution for certain occupant restraint problems.

The Canadian approach to the seat belt problem. R.M. Heron. Queen's University, Kingston, Department of Psychology. 1977. 5 p. 7 ref. Report Number: 770153. Presented at the Society of Automotive Engineers, International Automotive Engineering Congress and Exposition, 28 Feb-4 March 1977, Detroit.

This report reviews five projects relating to Canadian seat belt usage. On the basis of seat belt attitude surveys, national campaigns were mounted leading up to the mandatory usage law. A legislation survey revealed that most Canadians favor compulsory seat belt usage.

