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SAFETY BELTS: THE UNCOLLECTED DIVIDENDS

A Manual for Use by State Legislators and State Officials on Techniques to Increase Safety Belt Usage

Patricia F. Waller
Livia K. Li
B. J. Campbell
Michael L. Herman

University of North Carolina
Highway Safety Research Center
Chapel Hill, NC 27514

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16. Abstract

Recognizing that increased safety belt usage is by far the most cost-effective highway safety measure that can be undertaken by any State, this project describes how States can initiate action to collect major dividends in cost and human welfare. A manual with supporting 35 mm slides was developed describing techniques that could be used by State legislators and State officials to bring about increased belt usage.

The development of the manual began with a careful review of relevant literature followed by personal and telephone interviews and correspondence with highway safety experts. A large number of State officials and national experts were consulted before the manual was drafted. The manual and slides were pilot tested in a workshop format with 20 State officials and State legislators participating, representing seven States. These persons provided detailed comments, criticisms, and suggestions, on the basis of which the materials were completely revised.

The manual consists of 12 chapters, the first of which provides an overview of safety belt effectiveness. The next chapter describes a Statewide coordinated plan to increase belt usage. Each of the final ten chapters focuses on a major area where belt usage could be encouraged. The proposed techniques are linked to the State agencies having primary responsibility for the area. Topics covered include Police Traffic Services, Accident Investigation, Traffic Accident Records, Traffic Courts, Infant and Child Restraints, Periodic Motor Vehicle Inspection, Driver Licensing, Driver and Traffic Safety Education, Codes and Laws, and Public Information and Education. Most of the proposed techniques could be implemented within already existing authority, although a few would require at least limited legislation.

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PREFACE

The overall usage rate of available safety belts is discouragingly low. It is generally agreed that in the field of highway safety the increased use of these belts would provide by far the greatest dividends for the least expenditure. Indeed, the major investment has already been made and paid for by the automobile purchaser. However, most of the dividends remain to be collected. This manual is concerned with ways in which State legislators and State officials can encourage their citizenry to realize these uncollected dividends.

An attempt is made to cover a wide range of possible seat belt use inducing techniques, and it is not expected that any one State would find all these proposals suitable for its purposes. However, the techniques described might be considered a shopping list from which each State could choose those proposals that appear to fit in with its philosophy and goals.

Before federal legislation on this issue, 33 States and the District of Columbia enacted laws requiring the presence of safety belts in passenger cars. Some States require that certain classes of drivers use safety belts. Those States that adopt the federal regulations governing interstate truck operators already require, at least in principle, that intrastate operators of contract and common carriers use available safety belts. In at least one State school bus operators must use seat belts, and in some States students in driver education classes must use them. Clearly State legislators and officials would not have enacted such measures had they not considered the use of safety belts important. Yet even with these encouragements we find that overall belt usage remains low.

There has been considerable debate about the relative merit of air bags and safety belts. Of course a completely passive restraint system is preferable to one that requires the active participation of the vehicle occupants. However, even air bags require the use of a lap belt for optimum protection. While we may ultimately succeed in our quest for a truly passive restraint system that is effective, the fact remains that for many years to come safety belts will be the only restraint system available to a significant portion of our motoring public. Motor vehicle crashes exact a high toll in injuries and deaths, particularly among the younger portion of our population. State authorities could exercise greater responsibility in this area to significantly reduce this needless waste.

This manual is designed for the State legislators and State officials who are concerned about this problem and interested in feasible ways of combating it. We hope that for such persons the proposed techniques will be found useful and will perhaps suggest additional approaches to the problem.

Each of the last ten chapters in this manual addresses a specific area of responsibility such as driver licensing or accident investigation. In most instances there is one State agency that has primary responsibility for the activities discussed.

However, the chapters are interrelated in many ways and ideally should be used within the context of a coordinated State plan as described in the second chapter.

A set of 35 millimeter slides has been prepared for use in conjunction with the text material. There are numbered within chapter and the numbers in the right hand margins refer to the slides that correspond to that portion of the text.

ACKNOWLEDGMENTS

This manual is the product of the efforts of a multitude of people. The authors have received the enthusiastic cooperation of local, State, and national officials, private organizations, and private citizens in compiling the information provided here. An attempt will be made to identify those who helped at each stage of the project.

Literature Review and In-House Survey - At the beginning of the project a review was conducted of the available literature, focusing on techniques to bring about increased usage of safety belts. A number of the University of North Carolina Highway Safety Research Center (HSRC) staff were then interviewed at length for their reactions to proposed techniques and their suggestions for additional measures. Special appreciation is expressed to Forrest M. Council, Donald W. Reinfurt, William W. Hunter, and John H. Lacey for their contributions in this regard.

Interviews with State Officials - Personal meetings were held with North Carolina State officials and with representatives of private organizations. From the North Carolina Division of Motor Vehicles we consulted with Kenneth N. Cates, Planning Coordinator; J. T. Baker, Assistant Director, Driver Licensing; Grover McKay, Assistant Chief Driver License Examiner; Henry Lowery, Driver Improvement Coordinator; Richard Kleeberg, Computer Systems Manager; Worth McDonald, Director, Traffic Safety Education; J. G. Wilson, Director, Enforcement and Theft; and Joseph Register, Statistical Analyst. The interviews focused on the role of driver licensing, driver education, driver improvement, school bus training and safety, vehicle inspection, and vehicle registration in bringing about increased usage of safety belts.

Larry Phillips, Consultant; Norman Leafe, Director; John Noe, and James Hall from the Department of Public Instruction, Division of Health, Safety, and Physical Education provided input on the role of safety education (including but not restricted to driver education) in increasing safety belt usage.

Robert Giles, Director, Research and Planning Division, Administrative Office of the Courts discussed with us the structure of the court system and possible ways that the courts could encourage safety belt usage. William Melvin, Assistant Attorney General, North Carolina Office of the Attorney General explored with us how proposed legislation might be received by the legislators, the courts, and the public.

John Daniel and Gloria Jimineze of the Office of the North Carolina Commissioner of Insurance discussed the potential role of insurance interests in bringing about increased belt usage.

Dan Emory of the North Carolina State Highway Patrol was consulted regarding the role of accident investigation and police traffic services in increasing belt usage. Possible problems of enforcement of certain proposals were also discussed.

James Shaw, Assistant Secretary of Transportation, discussed how the Office of the Governor's Highway Safety Program could function to coordinate a Statewide program to bring about increased usage of safety belts.

Elmer Oettinger, Assistant Director, University of North Carolina Institute of Government provided input on the role of public information and eudcation, insurance, and licensing.

Richard Brantley, Executive Vice President; H. L. McPherson; and David Vandelinder of the Independent Insurance Agents of North Carolina, Inc. were consulted on the role of the independent insurance agents in supporting efforts to increase belt usage.

Out-of-State Contacts - Correspondence and telephone contacts provided a wealth of information from out-of-state organizations and individuals. Christopher Kennedy, Manager, Automotive Safety Relations, Chrysler Corporation referred us to Annemarie Shelness, Executive Director, Physicians for Automotive Safety, who provided materials on restraint systems for infants and small children. She also directed us to John C. Heffelfinger, Jean Jewett, and Rose Chaivre, all from Michigan and all of whom provided valuable detailed information on the restraint system recycling program described in the manual. Gayle F. Hines of the Garner, N.C., Jaycettes also provided related material.

Russell MacCleery, Vice President, Motor Vehicle Manufacturers Association; John Manikas, Associate Government Affairs & Planning Staff, Ford Motor Company; Roland A. Ouellette, Director Transportation Affairs, Industry-Government Relations Staff, General Motors Corporation; Robert O. Sornson, Manager, Environment & Safety Relations, Chrysler Corporation; William Trevarros, Attorney, Washington, D.C.; Donald Lhotka, National Safety Council; Donald J. Bardell, Executive Director, American Association of Motor Vehicle Administrators; and Vincent Tofany, President, National Safety Council were contacted. A variety of information was received from these sources.

Nils Lofgren, Manager, Transportation & Safety, Motor Vehicle Manufacturers Association, provided us with recent reports that were of great help to us.

Charles H. Pulley, President; and Michael B. Scanlon, of the American Safety Belt Council, provided valuable literature to us.

Sue C. Park, The Auxiliary to the American Optometric Association, and Jean R. Miller of the University of Rochester Medical Center provided information and reports.

Viven Giles sent information and material on the "Mother Knows Best" program in Virginia.

Victor J. Perini, Jr. of the Highway Users Federation for Safety and Mobility was of special help in the initial stages of the project.

The National Conference of Governors' Highway Safety Representatives, The Council of State Governments, The National Association of Counties, and the National League of Cities were contacted for their input.

Edward Kearney, Executive Director, National Committee on Uniform Traffic Laws and Ordinances provided a copy of the model bill developed by that organization.

Mike Ellis, Governor's Highway Safety Representative in Tennessee, provided a copy of the bill enacted by that State's legislature.

Chapter Drafts and Reviews - The chapters were drafted by Livia K. Li, Patricia F. Waller, Michael L. Herman, B. J. Campbell, and Susan S. Padgett, with inputs from Donald W. Reinfurt, Forrest M. Council, William W. Hunter, John L. Lacey, Frank Muth, and Ralph Darby.

Preparation of Visual Aids - The rough drafts were provided to Rebecca McCollum of the Highway Safety Research Center Graphic Arts Section. She drafted suggestions for accompanying slides which were reviewed by the persons who would be responsible for the chapter presentations at the pilot workshop. She then prepared materials and worked with William Pope and Frank Roediger in creating the final set of slides. Beverly Orr helped to coordinate this and other aspects of the project.

Pilot Testing of Materials - The manual and supporting slides were pilot tested at a workshop held in Atlanta, Georgia. Beverly Orr was responsible for workshop arrangements. Workshop instructors included B. J. Campbell, Forrest M. Council, Livia K. Li, Beverly Orr, and Patricia F. Waller. Participants from Florida included B. J. Barnett, Florida Highway Patrol; Richard Cox, Director, State Traffic Court; James Striplin, Traffic Safety Education; H. Preston Matthews, Director, Health Education, Department of Health and Rehabilitation Services; and Thomas A. Seals, Florida State University. T. LeGrande and Philip Meeks, South Carolina Highway Patrol; R. Preston Smith, South Carolina Highway Department; and Dudley Triplett, South Carolina

Office of the Governor's Highway Safety Program represented South Carolina. Participants from Georgia included Thomas Gresham, Office of Highway Safety; Mary Bell Harrison, Judicial Council of Georgia; Hershel Hyde, Driver Services, Georgia Department of Public Safety; Jerry Jackson, Vice Chairman of Motor Vehicle Safety Committee, Georgia House of Representatives; J. R. Stephens, Motor Vehicle Inspection, Georgia Department of Public Safety, and Fred Portwood, Supervisor, Planning Division, Georgia Department of Public Safety. North Carolina representatives included Elbert L. Peters, Jr., Commissioner of Motor Vehicles, and Lewis L. Bock, North Carolina Division of Health Services. Diane Lindsey came from the Mississippi Governor's Highway Safety Program. Howard Miller, Director, Department of Public Safety, attended from Iowa, and David Shinn attended from the Michigan Department of State. William Foulis of the National Highway Traffic Safety Administration was also present. All these people participated in the workshop discussion and virtually all of them provided written comments on the copies of the manual provided to them for this purpose. The input from this workshop was voluminous and in our opinion of the greatest value. The manual was rewritten based on the comments and suggestions of these participants.

NHTSA Review - Finally the materials were reviewed by NHTSA personnel in Washington, DC. Special thanks are due Walter J. Norbet, Stuart A. Liner, Arthur J. Latchaw, Richard Fredericks, A. D. Jordan, Dwight Fee, Joseph Grillo, Gary Butler, and LeRoy Dunn for their careful evaluation and helpful suggestions.

LeRoy Dunn and James Nichols provided administrative help to keep us on schedule.

Finally we wish to express our gratitude to William Foulis, our Contract Technical Manager, who shepherded the project through to completion. His good humour and supportive attitude throughout the project were especially appreciated.

Teresa Parks, Donna Suttles, Lee Estes, Peggy James, and Ellen Overman typed and retyped the many revisions of the text. Their patience and dedication are greatly appreciated.

We have not mentioned by name everyone who contributed. Nevertheless we acknowledge our debt of gratitude to the many participants in this project. Their input was essential. The final product, however, with whatever errors and omissions it may contain, is the responsibility of the authors.

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Chapter 1

SAFETY BELT USAGE

AN INTRODUCTION AND OVERVIEW

Over the last few decades the automobile has become an integral part of the lifestyle of most Americans. It is used on a daily basis to carry out the normal activities of families and individuals and has come to be viewed as a necessity rather than a luxury. In these day-to-day travels, the average individual is confident of safe arrival at his or her intended destination and is, for the most part, unmindful of the potential danger involved each time one slips behind the wheel. Fortunately, most of the time these assumptions are correct.

Nevertheless automobile crashes, and the resulting injuries and deaths, are sufficiently common that the aggregate toll on a State or national basis constitutes a major cost to society, both in dollars and in loss of human life. [1] [2]

Even on an individual basis, most citizens have been close enough to an automobile crash to experience either the searing anxiety that accompanies the injury of a loved one, or the shaking relief of being spared injury and death after a near collision.

Since the inception of the automobile as the major form of transportation in the United States, a series of expensive programs have brought about marked and continuous imporvement in safety so that today we enjoy a record number of miles of safe driving. Indeed, if the highway death rate today were the same as that enjoyed in the "good old days" of the late 1920's and early 1930's, this country would be suffering a national death toll in excess of 225,000 deaths per year instead of the present 45,000.

In the midst of this progress, however, the U.S. --- its citizens and government as well --- have largely ignored the most effective (and one of the least expensive) safety programs available.....the regular utilization of the seat and shoulder belts that are available in virtually every car in the country.

Even with the demonstrated protection benefits, the mandated installation of belt systems in American cars since the late 1960's, and the fact that belts are no longer a "fad" or something "new", the majority of the people still choose not to utilize their safety belts on a regular basis. [3]

Before investigating and discussing the reasons for this phenomenon, it might be helpful to explore, in a little more detail, the function of safety belts, and how this function is beneficial in a crash situation.

THE FUNCTION OF SAFETY BELTS [4]

The very essence of an automobile crash is a sudden stop. If the stop is gradual enough, it isn't considered a crash, and braking alone can't stop a car quickly enough to be considered a "crash". Therefore, for a crash to occur the car must slam into another object, while in motion. If a moving car stops suddenly enough to constitute a crash, the bodies of the vehicle's occupants are destined to crash too ... it's only a question of what the bodies will strike in coming to a halt.

Consider the case of a child. If a child is riding unbelted in an automobile which crashes into the rear of a car ahead, it takes only a few thousandths of a second (called milliseconds) until the [5] car crunches to a stop. During these few milliseconds, while the car grinds to a halt, the child, and anyone else in the car, is sliding forward across the seat, continuing at the same speed at which the car was traveling. The child then slams, at nearly that same speed, into whatever is in front --- the steering wheel, instrument panel, windshield, interior post, other passengers, etc. To make matters worse, by the time the child impacts, the car has pretty much come to a full stop. So whatever the child strikes is dead still, and even the benefit of "catching up" to it while it is still moving forward is not available.

Thus, in a very real sense, there are two crashes --- the car striking some immovable object (first impact), and, a few milliseconds later, the car occupants striking something in the car's interior (second impact). The list of things the occupants may strike is long and not very encouraging:

- The windshield or its frame - Even the safety glass will break if the impact is great enough. The potential for disfiguring wounds is obvious.

- The instrument panel - Despite padding and less pointed knobs, the ridges, levers, and knobs can inflict concussive and penetrating wounds in more severe crashes.

- The steering wheel - Although steering wheels and columns are now of energy absorbing design, the wheel can still inflict severe injuries when the upper body hits the rim.

- The pavement - While this is not in the car's interior, it poses perhaps the greatest hazard. Despite improved door latches, crash forces can deform the car body, and make the door spring open and propel an unbelted occupant from the vehicle onto the pavement. Such an occurrence increases the chance of death or serious injury to the involved party an average of 250 percent.

The unbelted person in such a crash then, slams forward and collides in one or more of the following ways:

knees against the lower dash

chest against the wheel, dash or forward seat (in the case of backseat passengers)

face against the wheel, dash, windshield, or other interior structure

whole body against interior structures, other passengers, or the pavement

Fortunately, in many minor crashes, these contacts are minor and result in only a bit of pain and soreness; however, in as many as four million instances each year, the crash is severe enough to result in more than minor injury. In these cases, even if the occupant has time to brace, the crash forces far outweigh the muscle's capacity to resist.

Taking the preceding possibilities into consideration, what happens differently if belt restraints are worn?

The lap belt is fastened snugly and correctly across the pelvic area (i.e. worn low -- not across the stomach) and the shoulder diagonal belt across the chest. In the same crash situation the occupant is helped by the belt in five ways: [6]

1. There is the "ride down" benefit, in which the belt begins to stop the wearer as the car is stopping.

2. The belt keeps the head and face of the wearer from striking objects like the wheel rim, windshield, interior post, or dashboard.

3. The belt spreads the stopping force widely across the strong parts of the body.

4. Belts prevent vehicle occupants from colliding with each other.

5. Belts help the driver to maintain vehicle control thus decreasing the possibility of an additional collision.

These benefits are most important to the safety of the vehicle occupant, and are discussed in detail below:

1. The "Ride Down" Benefit - As previously stated, a sudden stop is essential for a crash situation to exist. In addition to the sudden stop by the vehicle, the unbelted person also has a severe stop against the car's interior surface after the vehicle has already come to a full stop. This means that the body comes to a stop in the least time and distance and with the maximum speed

differential between his body and the impacted car structure. Wearing a belt helps spread out that time and distance. Since the belt is attached to the car, it begins to stop at the same time that the car begins to crunch to a halt. The body, almost immediately, slams against the belt and begins to slow down with the car. Thus, the belted body begins to stop several milliseconds earlier than if unbelted. By having a longer time in which to stop, the severity of the decelerative force is decreased; and as an added benefit, the belt actually expands to some degree under the load of the body. This minor expansion soaks up some of the energy of the impact and is, therefore, beneficial to the wearer.

2. Protecting the Body From Secondary Impact - The upper torso restraint combined with the lap belt keeps the body in the car and keeps it from striking unyielding objects of the interior. Particularly important is the protection given to the head and neck by the upper torso belt.

3. Spreading the Impact Load - When a car strikes something and stops suddenly, the occupants must also slam against something to come to a stop. Safety belts are the best thing to impact, because the belt spreads the blow over a relatively large area of the body. Also, the parts of the body bearing the blow are strong -- the pelvic area with its strong underlying bone structure supports the lap belt and the rib cage supports the upper body belt.

4. Preventing Occupants From Colliding With Each Other - When belts are worn by all occupants, they are prevented from colliding with each other during a crash. Unrestrained occupants can inflict severe and even fatal damage to a belted occupant who is otherwise protected.

5. Maintaining Vehicle Control - Belts enable the driver to remain in position so that necessary evasive actions can be taken to avoid another crash.

The preceding illustrations paint a rather extreme picture -- extremely bad in the case of the unbelted person, and extremely good in the belted case. However, there are, no doubt, crashes that contradict this "all or nothing" portrayal. There are often reports of cases in which people escape injury even though not belted. There is also endless speculation about crashes in which an unbelted person would supposedly have been killed if he or she had been belted, and reports of cases in which the belt itself inflicted injuries.

Let us, therefore, consider several situations in which the belt versus no belt advantage might not be so clear-cut:

a. A crash which is so mild that no injury would occur whether or not a belt is worn. In this situation the belt does not help or hurt.

b. A crash which is so severe that the person would be killed whether belted or not. In this situation the belt is not a factor.

c. A collision in which the belt is improperly worn, i.e. too loose, or worn over the stomach, or across the neck.

d. A crash in which a belt actually inflicts an injury. In these situations the belt does not help as much as it was intended to and may cause an injury. However, the severity of the belt-caused injury must then be weighed against the severity of the injury that would have occurred without a belt.

e. A case in which the belt jams and prevents prompt escape from the car in a fire or water flooding situation.

In such examples as above, one might question the true worth of belt systems. Thus in some crashes the belt may not do as much good as it should. In other crashes the belt may be superbly effective. The question is what are the "real world" benefits of belts in saving lives and preventing injuries. This in turn depends on how many of which kinds of crashes occur.

The proper way to answer the question is with a tally of the results of actual highway crashes and the injury and death figures among those who wore belts and those who did not. A proper comparison, therefore, takes into account the times the belt does not work properly as well as the times it works well, and shows any net benefit of the belt.

The benefits of safety belts have been repeatedly documented through more than 20 studies of actual crashes. These studies were done in various States of the United States, as well as in Europe and Australia. The studies are virtually unanimous in showing that belts are highly beneficial....the only disagreement is in the degree of benefit. The consensus is that wearers of belts sustain approximately 50 percent fewer serious injuries and 60 to 70 percent fewer fatal injuries. The table on the next page shows some actual injury data which illustrate the meaning of the reductions listed: [7]

Table 1. Injury for Belted and Unbelted North Carolina Drivers.

	No Belt		Belt	
	Freq*	(%)	Freq*	(%)
No Injury	70902	(78.74)	9710	(83.69)
C Injury	7100	(7.44)	850	(7.33)
B Injury	7533	(8.37)	752	(6.48)
A Injury	3926	(4.36)	271	(2.34)
Fatal	584	(0.65)	19	(0.16)
Total	90045		11602	

Expected Fatal = 75

Observed Fatal = 19

Benefit = 75% reduction

Expected A & Fatal = 581

Observed A & Fatal = 290

Benefit = 50% reduction

---

*Frequencies are adjusted by severity of vehicle deformation

These numbers are a paradox. If only five percent are seriously injured, even without a belt, and if use of the belt only cuts this injury to 2.5 percent, it could be argued that the reduction is not all that substantial. When expressed as a percent reduction, however, the same figures are more impressive, with the unbelted toll of five percent being reduced by 50 percent. This 50 percent reduction comes even more clearly into focus by including the actual number of people who are affected. Since the number of crashes is extremely high, the reduction caused by safety belt usage could reduce serious injuries by 750,000 people each year. In addition, it is estimated that 10,000 or more lives per year are lost which could be saved by belt usage.

The studies also suggest that belts are increasingly effective in the higher range of injury severity. That is, belt usage could reduce minor injury by about 20 percent, serious injury by 50 percent, and fatal injury by 70 percent. [8]

An examination of three year's crashes in North Carolina involving late model, full sized passenger cars shows no fatality among these drivers who were wearing lap and shoulder belts at the time of the crash.

While there is some disagreement in other highway safety program areas concerning effectiveness, there is no such contention with regard to safety belt effectiveness. In fact, there is no other known approach to traffic accidents which would yield a comparable savings in lives at so low a cost as the effective utilization of safety belts and restraint systems. [9]

Nevertheless, as stated earlier, the majority of people do not wear safety belts, and some estimates indicate that the number not using belts may run as high as 85 percent. Even in the newest cars, with the most comfortable belt systems, at least 60 percent of the people choose not to wear them on a regular basis. It is worthwhile, therefore, to examine some of the reasons and rationalizations used by individuals who choose not to wear their safety belts. It is difficult of course to ascertain whether these "reasons" are, in fact, the factors which have a bearing on non-use of belts, or whether they are excuses used to conceal deeper adverse reactions. In any case, the "reasons" must be discussed and, in some cases, refuted.

SOME REASONS FOR NON-USAGE OF BELT SYSTEMS [10]

1. "Safety Belts Can Actually Cause Injury by Cutting Into the Body" - To be honest, it must be admitted that there are cases in which the belt itself causes injury. In many such cases, the belt is worn improperly. For example, if the lap belt is worn too high and lies across the stomach, or is worn too loosely, then during a crash, the webbing can press into the soft tissue and internal organs of the abdomen instead of the strong bone structure of the pelvis. In such an instance the belt itself can cause injury. [11]

The injury, however, is not usually very serious except in rather severe crashes.

But what about injuries even when the belt is worn properly? Yes, in crash of terrible proportions a person could die even when the belt is worn snugly and properly, but the chances of survival are very good. If the crash is so terrible that the person dies even though properly belted, the chances are that the same tragic result would have happened if he had not been belted.

Remember, when a crash occurs, a person will be thrown forward with great velocity and will be stopped by something. You can be stopped by a safety belt, and stopped gently, as compared to being stopped more violently by the steering wheel, dashboard or the windshield.

As was stated earlier, study after study confirms that one is better off being belted, and better off by a wide margin, even allowing for the relatively infrequent possibility that the belt itself may cause injury.

2. "Whether or Not I Wear a Belt Is Nobody's Business But My Own ...It's My Life!" - While this arguments sounds very righteous, it is simply not true. When someone is severely injured or killed in a crash, it affects everyone in the society. The costs of death and injury from automobile crashes is borne by all members of society in the form of increased life, health, and automobile insurance premiums, greater social security costs, and increased taxes for welfare, rehabilitation, hospitals and ambulance services. Every life lost through non-use of belts, therefore, and every major injury sustained because someone thought, "It's my life, I'll do what I want", not only costs the victim and his family, but also the rest of society. [12]

In addition, as we have mentioned earlier, if belts are not used, the driver may collide with other occupants during a crash and cause injuries to himself and to the other occupants of the vehicle. Therefore, it is not just his or her life that is being endangered. If a child happens to be in the car, the unbelted adult could inflict serious or even fatal injuries to the child.

3. "If I'm Wearing a Belt and The Car Catches Fire or Submerges Following A Crash, I Could Get Trapped." - Some people express the fear that safety belts would slow down or even prevent escape from a car in the event of a fire or submersion. This is a groundless fear for several reasons: [13]

3a. Belts release quickly so there is little or no delay in exiting the vehicle.

3b. Belt jamming is prevented by the rigid tests which belts must undergo to assure that they will unlatch easily, even following the belt stretching load which would occur in a serious crash.

3c. An unbelted occupant is much more likely to be incapacitated or rendered unconscious by the crash, making escape impossible. By wearing belts, a person has a much better possibility of remaining conscious and able to provide the needed actions to insure safety. Thus, where quick escape from the car is a matter of survival, wearing safety belts is, if anything, even more important since unconsciousness, incapacitation from injury or even extreme pain could cause crucial delay.

3d. It should be said, most emphatically, that post crash fire or submersion (as in a river) are extremely rare occurrences. They are reported in newspapers from time to time, but the very news worthiness of such events points to their rare nature. Although television shows repeatedly portray fiery crashes as if they were the rule, they are in fact the rare exception.

4. "Belts Are Hard to Adjust, Hard to Dig Out From Behind the Seats and Uncomfortable to Wear." - This complaint is actually a rather legitimate one with regard to the belt systems in many cars. Many people have had the frustrating experience of trying to adjust the buckle when the webbing of the belt is stiff and dirty or experienced take up reels that don't take up, or don't release, and torso belts that nestle against the neck's jugular vein. These complaints make a good case for expecting the auto companies to produce convenient easy-to-use belt systems that continue to work even after several years of use. These same complaints do not, however, hold up very well as reasons for responsible adults not protecting the health and safety of themselves and their children. [14] [15]

Unfortunately, society may be reaping the consequences of earlier inconvenient systems, in that some people are so "turned off" by belts based on experiences with earlier systems, that they don't use the modern systems even though they are much improved. Countering these complaints is difficult, but the inconvenience should be weighed against:

4a. The benefits of the belts in a crash.

4b. The merits of minor discomfort for a short duration versus possible permanent injury or disfiguration.

In a crash, those who realize the benefits of the belt are quick to say that any inconvenience associated with the belt is of no consequence.

5. "I'm a Careful and Defensive Driver and I Can Take Care of Myself; Besides the Driving I Do is Not That Dangerous." - The majority of drivers are confident (to some extent) that "it can't happen to me." Indeed most drivers make hundreds, even thousands of trips without incident. Everyday experience confirms the rare nature of collisions. Drivers, therefore, routinely get into the [16]

car with the expectation of safe arrival at their intended destination.

While the "rare" nature of collisions is likely to lead to complacency, it should be emphasized that the observance of sensible precautions against unexpected misfortune is a common experience throughout most of our lives. Taking flu shots or locking the house before going to bed are precautions that most people take even in the full realization that the chances of catching the flu or having a burglary are slight. Following the same line of reasoning, the probability of a crash is low, but the consequences of being wrong are terribly high, and the protective level of the belt is very good. Therefore, the belt is a necessary precaution.

6. "I Heard of a Crash in Which the Person Came Out Uninjured but If He Had Been Wearing Belts, He Would Have Been Killed." - It seems to be part of the folklore that such crashes occur regularly, and yet they are so elusive as to be "phantoms" when it comes to actual documentation. It is theoretically possible that freakish circumstances could, in rare instances, produce a crash in which a person would actually fare worse if belted than unbelted. However, such strange events are so rare as to be virtually impossible to document. The accounts told and retold are mainly fancy--not fact. [17]

On the other hand, in thousands of instances, researchers have documented the benefits of belts. In those instances where a claim is made that the belt would have been harmful, the claim is usually not substantiated and does not hold up under the scrutiny of a professional accident investigator.

7. "Its a Time Consuming Nuisance to Buckle Up, and I'm Very Busy." The argument that taking the time to buckle safety belts unnecessarily delays the start of a trip is fatuous. In fact, belts are just one added step in an already involved sequence which must be gone through before actually beginning a journey. One must: [18]

get in
close door
put on belts [19]
adjust clothes
adjust mirror
insert key
place selector in park or neutral
start car
put car in gear
release brake
drive

We don't think of these other steps as time consuming or a nuisance, and the addition of putting on safety belts is not going to add greatly to the time already taken in the steps listed. The ideal would be to incorporate buckling the belt into the starting "check list".

SUMMARY

The "reasons" not to use safety belts are not very defensible when examined closely and should not be allowed to endanger the lives and safety of the motoring public. This manual is an attempt to provide to State governmental officials and legislators the background information and materials necessary to dispel these and other myths that prevent widespread safety belt usage, and to outline a coordinated program which can be used to encourage the use of belt and restraint systems. This coordinated Statewide safety belt utilization encouragement campaign will, hopefully, enable each individual State to implement a program based on its needs, available personnel and budget. [20]

Various chapters in this manual outline ways to increase safety belt usage through a number of existing State programs and departments which are related to other aspects of highway safety. First, one approach to a coordinated State Plan is described. The following chapters detail the potential involvement of such areas as police traffic services, accident investigation, traffic records, traffic courts, motor vehicle inspection, driver licensing, and driver and traffic safety education. In addition, information is included outlining the importance of infant and child restraints and the codes and laws which affect safety belt usage. Finally, a coordinated public information and education program is reviewed to assist interested individuals and agencies at the State level in this very important area of public health and safety.

Highway safety officials implement a variety of programs, some very costly, in an effort to control the highway death toll. There is, however, no highway safety program that can show the kind of immediate benefits that can be achieved through increased safety belt usage -- not controlling the drunk drivers, not improving enforcement, not improving roadside structures to make them safer, and not other driver-related programs.

The supreme irony of the highway safety movement in this country is the slowness of highway safety officials to embrace safety belt usage programs as the number one priority. Hopefully, this manual will provide a way of implementing more meaningful programs.

Chapter 2

COORDINATED STATE PLAN

Each of the following ten chapters focuses on a specific aspect of safety belt usage. However, without some overall integration of these techniques they remain fragmented efforts that may never reach fruition because of a lack of reinforcement from other segments of State government. For example, including safety belts in periodic motor vehicle inspection might be easier to achieve if there were a requirement that all beginning drivers and their passengers must make use of them. Likewise, a public information and education program might be more effective if the State's traffic records system includes the information necessary to determine the potential benefits that would be realized through increased safety belt usage. Most of the techniques described in this manual do not stand alone, but rather are closely related to other techniques that are often the responsibility of a different State agency. Thus, to achieve maximum benefits a State should develop a Coordinated State Plan whereby all State agencies are working together to achieve the same major goal, namely, reduced loss of life and injuries through increased safety belt usage.

Each of the ten following chapters identifies a function that is within the jurisdiction of a State agency. The State's Department of Transportation or Division of Motor Vehicles is probably the agency most often involved. However, the State agencies responsible for education, health, the judicial system, and traffic law enforcement are also included. Therefore, it is essential that a State carefully consider the most effective source of coordination for its particular needs. In some States the overall coordinating function may logically fall to the Office of the Governor's Highway Safety Representative, while in other States it may be better situated in a different branch of government. It is also possible for a State legislature to establish a commission charged with developing and coordinating a State Plan for increasing safety belt usage. Regardless of which approach is the most appropriate for a given State, the important point is that there should be a well coordinated program.

Who should assume responsibility for initiating such a Coordinated State Plan? Obviously, the higher the level of initiation, the better the chances for a plan's success. If a plan is developed through existing State functions, ideally the Office of the Governor should be one of the first to be brought into the picture. If the concept of a State Plan is endorsed by the Office of the Gover- [1]

nor, then the officials in various State agencies can act much more effectively to bring about changes.

This chapter will describe one possible approach to developing a Coordinated State Plan. Obviously there are other ways to do it, and each State must proceed according to the special circumstances characterizing its State government, State legislature and constituency. Whatever approach is used, the facts should be assembled and the Plan well developed before it is presented to the public. The pre-campaign activities should be as low key as possible. Once the media are involved, there should be complete answers readily available to any questions raised. For some people the safety belt issue raises visions of Big Brother and excessive government control. While these persons may not be numerous, they are often vocal. Therefore, the evidence must be clear and complete, and the backing and support of major interests must already be generated. In a time when almost all citizens are feeling the economic crunch, the proposed effort can be presented as one that is very much in keeping with their overall goals of preserving health and lowering expenses.

Basically the Plan described consists of an Executive Committee, a Coordinating Council, subcommittees, and a Key Coordinator. The Executive Committee would be composed of top officials or their representatives from major relevant State agencies. This committee would provide the authority for pursuing the Plan and would insure coordination and cooperation among State agencies. Since it is often next to impossible to arrange meetings involving officials at this level, in some States the Governor's Cabinet or Council of State might best fill this function. This group already meets regularly to address matters of mutual interest, and increased safety belt usage would certainly fall into this category. [2]

The Coordinating Council would include designated staff members from the State agencies represented on the Executive Committee, as well as other members representing relevant interests. This Council would probably meet monthly and would review the work of the subcommittees it would appoint. It would handle the details of overall coordination and would report to the Executive Committee.

The subcommittees, appointed by the Coordinating Council, would conduct the major work involved in the State Plan. Each subcommittee would focus on a specific target group, developing material appropriate for that group and insuring that it is effectively reached. These subcommittees would report to the Coordinating Council, clearing with them the materials developed and the approaches anticipated to insure that the same basic information is being used by all group involved and that promotional efforts are launched at appropriate times.

The duties of the Key Coordinator are more difficult to specify since they will vary more according to the peculiarities of the State in question. Suffice it to say that this person must be an organizer, trouble shooter, enabler and politician par excellence who can insure that the plan is initiated and shepherded through to successful completion.

As mentioned above, the duties of the Executive Committee could be performed by either an already existing group such as the Governor's Cabinet or a group especially appointed for this purpose. For those States choosing the latter option, the following list is offered as possibilities for representation on the Executive Committee. It should be remembered that the larger the group, the more difficult it will be to secure satisfactory attendance at meetings and to arrive at any consensus. Therefore the group should be no larger than is absolutely necessary to insure the cooperation and support necessary for successful development and implementation of a program. The Executive Committee could include representatives from the following State agencies: [3]

1. Office of the Governor - Ideally the State Plan would originate and be coordinated out of this office.

2. Office of the Attorney General - Because any changes in State practices, whether they involve legislation or not, inevitably leaves the door open to possible legal contention, it is important that the Office of the Attorney General be involved in the State Plan from the outset.

3. Department of Motor Vehicles - Ideally the Commissioner of Motor Vehicle or his equivalent would be on the Executive Committee. Several of the areas of focus are directly related to the functions of this department.

4. State Highway Patrol or State Police - The Commander of the State Police should be on this committee, again because his personnel are so directly involved in the implementation of some of the proposed techniques.

5. State Board of Health - It is essential that this department be involved from the very start since the whole reason for implementing a Coordinated State Plan is to confront a major health problem, namely, traffic injury and death. The involvement of the State Board of Health should alert the medical community to their responsibilities and opportunities in the implementation of the Plan.

6. Department of Education - It is important that all segments of the public be reached in the Coordinated Plan, and the Department of Education has a unique opportunity not only to communicate with beginning drivers but also to influence school-age children who are exposed to risks as passengers. Indeed, an effective program through the school system could succeed in reaching not only the children but also the parents and older family members.

7. Department of Justice - If measures are taken that include legal sanctions, inevitably the courts will become involved. Even if no legislative measures are passed, judges have a unique opportunity to influence the behavior of those persons appearing before them. Because many of these persons are also likely to have higher accident rates than the driving public in general, it is a target group deserving of special attention.

8. Department of Administration - This department has the authority to establish Statewide regulations regarding the use of State vehicles and can require safety belt use on all trips using these vehicles.

9. Department of Commerce - This Department has the authority to regulate intrastate vehicles for hire, including contract and common carriers. Some States have already adopted the Federal regulations governing interstate drivers of such vehicles, and these regulations already include the requirement that drivers use available safety belts. However, if a State has not adopted the Bureau of Motor Carriers Safety regulations, then some consideration should be given as to whether such a requirement would be desirable.

10. Department of Labor - Because far more work time is lost through injuries suffered in motor vehicle accidents off the job, than for on-the-job injuries, it is appropriate for the Department of Labor to be concerned about the increased safety belt usage.

11. Office of the Commissioner of Insurance - Probably no other program promises so much for so little as far as insurance rates are concerned. Increased safety belt usage should be welcomed by both the insurance industry and those who regulate them.

12. Key State Legislator(s) - Some of the proposed techniques may require action by the State Legislature. The representation of this body on the Executive Committee will guarantee that proposals will be subjected to scrutiny from this vantage point.

13. Office of the Governor's Highway Safety Representative - If the State Plan is not directed primarily out of the Governor's Office, the Office of the Governor's Highway Safety Representative might be the most logical source of coordination.

The initial meeting of the Executive Committee should be devoted to a review of the rationale for attempting to increase safety belt usage, along with an overveiw of some of the ways in which State agencies can contribute to such increased usage. Once the members of the Executive Committee are committed to the concept of a coordinated approach to increasing safety belt usage, each office represented could appoint a staff person from his department to participate on the Coordinating Council. In addition to representatives from the above-named offices, the Coordinating Council could include representatives from the following areas: [4]

1. Driver Licensing - Although the Commissioner of Motor Vehicles will already have his representative on the Council, a person intimately acquainted with the procedures for the State driver licensing program could be of great help.

2. Traffic Records - The Council could benefit from including a person with first-hand knowledge and understanding of the State's traffic records system and what would be required to make it possible to retrieve usable safety belts information.

3. Enforcement - In addition to a representative from the State Police, consideration should be given to including representation form municipal forces since these will play a major role in the monitoring of any successful safety belt program.

4. Insurance Personnel - The Office of the Commissioner of Insurance will represent the State interests in this area. However, the industry itself could also be represented, and the insurance adjustors are perhaps in the best position to provide relevant input.

5. Emergency Medical Services and Emergency Room Personnel - Although the State Board of Health will provide broad representation for the health professions, EMS and ER personnel both have specific roles of considerable importance. Therefore, some consideration should be given to special representation of these personnel on the Council.

6. Judges and Magistrates - Besides the Department of Justice, some representation from judges organizations could be helpful.

7. Driver Education Teachers - If there is a State orgainzation of driver education teachers, such as ADTSEA or FDTSEA could be officially represented. Otherwise an appropriate member of their ranks could be included on the Council.

8. Commercial Driving Schools - In some States driver education is handled to a large extent through private schools. If this is the case, it may be useful to have someone representing them.

9. Mayors' Association - Because a Coordinated State Plan can succeed only to the extent that there is grass roots support for it, the mayors of the State should be considered for representation on the Council. In some States, counties, towns or cities (e.g. Brooklyn, Ohio) have the authority to pass ordinances requiring safety belts usage within their jurisdiction.

10. Association of County Commissioners - This group should be represented for the same reasons given for the Mayors's Association.

11. Industry - This group has much to gain from increased belt usage and is in a position to exert direct influence on belt usage in company vehicles and indirect influence through communications to employees.

12. Health Related Professional Organizations - Groups such as associations of local health directors, dentists concerned with trauma repair, nurses, and social workers, are candidates for representation on the Coordinating Council.

13. Legislators - Although one legislator cannot speak for another, someone from this group could provide valuable input to the Council.

14. State Trucker's Association - If any measures are to be taken regarding required belt usage by in-state truckers, then the interests of these groups might well be represented on the Council.

15. Consumer Groups - While it is obvious that not all affected consumer groups can be represented, some consideration should be given to including a total of one or two Council members from such groups as the State PTA, the State Motor Club, the State Chapter of the National Safety Council, the State Chapter of the National Association of Women Highway Safety Leaders, the State Jaycees or other service organizations such as Sertoma.

16. Public Information Representatives - Almost every State agency has a public information officer. While it would be unwieldy to include the public information representatives from all involved State agencies, there should be a public information representative from the Governor's Office, the Office of the Governor's Highway Safety Representative or the Division of Motor Vehicles or Department of Transportation. This public information representative would in turn coordinate the activities of the public information representatives from the other involved agencies and groups.

As in the case of the Executive Committee, the Coordinating Council should not be too large, since decision making becomes so difficult with increasing size. Again the guideline should be that the group be as large as necessary to accomplish its goal but not larger. The Coordinating Council would meet at least monthly and

perhaps more frequently in the early stages of the programs development. However, one of its major functions would be to develop subcommittees to work on the specific parts of the program. How these subcommittees are delineated would depend to some extent on the organization of State government in question.

There are two major kinds of subcommittees that would be created by the Coordinating Council. The first would concern Intemediary Target Groups that would be instrumental in implementing a Coordinated State Plan, while the second would be concerned with specific Ultimate Target Groups. A candidate list of subcommittees concerned with the Intermediary Target Groups would be as follows: [5] [6]

1. Subcommittee on State Personnel in Relevant Agencies - Because it is only through State personnel that the Coordinated Plan can be implemented, it is essential that certain key groups, first, be convinced of the importance of the effort and, second, be taught how they might participate effectively in the State Plan. This subcommittee should include members from groups that would fall under its perusal, including the following:

1a. Driver License Examiners - The State's cadre of license examiners will regularly come into contact with all licensed drivers and will have a unique opportunity to educate the driving public. In many States driver license examiners function fairly independently, and if they are not sincerely convinced of the importance of safety belt usage, they cannot be expected to use their position to promote it. Therefore, these State personnel must first be informed of the benefits to be derived from increased belt usage and second, taught how they might through regular licensing procedures encourage the public to make use of available belt systems. [7]

1b. PMVI Inspectors - It is well to agree that safety belts should be included on PMVI, but unless inspectors are carefully instructed as to what vehicle models should include safety belts in what seating positions, and how they should determine the acceptability of safety belts and warning systems, they cannot provide high quality inspection service and information to be included in traffic records. [8]

1c. Vehicle Registration Personnel - Those responsible for issuing license plates should be informed of any changes in information requirements for registering vehicles and renewing plates including requirements on safety belt availability and condition. [9]

1d. Enforcement Personnel - Both State and local enforcement personnel must be informed of the potential benefits of belt usage and their role in encouraging the public to make use of belt systems. [10]

2. Subcommittee on Traffic Court Judges - In our society the judiciary holds a unique position in that there is wide latitude for discretionary restrictions that may be placed upon a convicted defendant. However, it is probable that most judges have not considered their potential for bringing about increased safety belt usage and consequently decreased injury and death. This group will not be easy to reach and will probably be even less easy to influence. This subcommittee would address not only judges but also hearing officers and/or magistrates who in some States may handle the bulk of traffic offenders. [11]

3. Subcommittee on Insurance Interests - The insurance industry has much to gain from increased safety belt usage and there may be ways that they can introduce incentives to provide backup for a State Plan. This subcommittee should include representatives from both the Office of the State Insurance Commissioner and the private insurance industry. [12]

4. Subcommittee on Emergency Medical Services and Emergency Room Personnel - The acquisition of accurate data for use in analyses of belt effectiveness will depend to a significant extent upon the cooperation of EMS and ER personnel who are qualified to make informed judgments about the belt usage of victims they treat. In order to realize the goal of cooperation from qualified EMS and ER personnel, careful attention must be given to how best to reach these groups and then how they might be trained to provide useful data. This subcommittee should include persons from the State Board of Health, the State Medical Society, the State Hospital Association, the State Association of Trauma Surgeons (if there is one), and others directly concerned with emergency medical technician training. [13]

5. Subcommittee on Physicians - In our society the physician continues to hold the position of highest prestige and consequently can exert considerable influence. Because most physicians are not aware of their potential role in the prevention of injuries in motor vehicle crashes, this subcommittee would focus on increasing their awareness and enlisting their support for a Coordinated State Plan. Members of this subcommittee should include representatives from the State Board of Health, the State Medical Society, the State Chapter of the Academy of Family Practice, or other appropriate State organizations concerned with the health and well-being of the general public. [14]

In addition to the subcommittees concerned with intermediary groups, there should be subcommittees focusing primarily on Ultimate Target Groups. These could include the following: [15]

1. Subcommittee for Infants and Small Children - This subcommittee would be responsible for a segment of the population especially unable to protect its own interests. Members of this subcommittee should include someone from the State Board of Health, representatives from pediatricians, obstetricians, public health nurses, parents' groups, and a representative from a civic group able and willing to participate in an infant and child restraint recycling program. In addition, because this is an area where legislation might be considered, it would be worth including an interested legislator on this subcommittee. [16]

2. Subcommittee for school age children - Members of this subcommittee should include someone form the State Department of Education, a representative of school administrators, a representative from a parents' group (e.g., the State PTA), and a representative from a teachers' group. [17]

3. Subcommittee for young drivers - This target group has the most to gain from increased safety belt usage simply because of its inordinately high crash rate. Subcommittee members should include a representative from driver licensing, someone representing driver educators, a representative of insurance interests, someone representing parents, such as the State PTA, and representatives from a young drivers group. In addition, an interested State legislator would be appropriate to include on this subcommittee. [18]

4. Subcommittee for problem drivers - A number of State agencies have an opportunity to influence this driver group, and this subcommittee should include representatives from driver improvement, including the State traffic safety education program designed for this group as well as the State hearing officers or driver improvement analysts and traffic schools under the auspices of the court; enforcement personnel, both State and local; and the traffic courts and judges. A converted problem driver should also be represented in this subcommittee. [19]

5. Subcommittee for special classes of drivers - There are a number of driver groups that are deserving of special attention by virtue of the types of vehicles they operate, the types of passengers they transport, or the special conditions under which they are allowed to operate. Under the heading of Operators of Special Types of Vehicles would come drivers of vehicles for hire (contract and common carriers) engaged in intrastate commerce and hence not falling under Federal regulations. [20] Drivers who might be regulated because of the passengers they transport include school bus drivers and drivers of commercial buses. [21] Drivers operating under special conditions

include drivers of taxis and limousines operating under special franchise and drivers of State vehicles. In all these instances, there are grounds for requiring safety belt usage by drivers, and in the case of State vehicles, passengers as well. Operators of taxis and limousines could also be required to see that safety belts are available and in usable condition for passengers wishing to take advantage of them. Members of this subcommittee should include representatives from each of these special target groups, as well as someone representing the State legislature. [22] [23] [24]

6. Subcommittee for people at work - As mentioned earlier, more time is lost from work because of injuries incurred in non-job-related motor vehicle crashes than from job-related injuries. Therefore it is of mutual interest to employers and employees to address ways in which belt usage might be increased in both company and private vehicles. This subcommittee should include representatives from major business and industries in the State, as well as unions, coalitions of small businesses, and professional organizations. [25]

7. Subcommittee for drivers in general - Most drivers will not fall into any of the above listed categories. However, they must be reached, since they will to a large extent determine the overall success of a coordinated State program. The subcommittee concerned with this group should include members representing driver licensing, PMVI, vehicle registration, and the medical community. [26]

8. Subcommittee for non-driving adults - Although most of this manual has addressed only the driving portion of the adult population, there are many adults, especially in the older age brackets, who do not drive but who would nevertheless constitute a target group by virtue of their presence as passengers in motor vehicles. This group may be reached through reminders included in regular medical checkups and through the State's coordinated public information and education program. Members of the subcommittee should include representatives from the medical community, including the State Department of Health as well as representatives of the Public Information Program. [27]

9. Subcommittee on Public Information and Education - Although subcommittees would be free to interact with each other as desired, there would be an additional subcommittee concerned exclusively with generating relevant data and preparing it in usable form for the other subcommittees. It would serve as a resource to the other subcommittees and would include public information representatives from each of the relevant State agencies and other organizations, but in addition would include traffic records personnel. This sub-

committee would not only coordinate the public information issued through the various subcommittees but also would generate the necessary supporting data and create appropriate procedures for reaching the various target groups of concern.

Subcommittees would meet as often as necessary and would keep in close communication with the Subcommittee on Public Information and Education. All subcommittees would report to the Coordinating Council at least monthly, and all subcommittees would clear any proposed publicity or action with the Coordinating Council prior to actual implementation.

There is no part of this entire plan that is more critical than the selection of the Key Coordinator, who will have prime responsibility for seeing it through. While the Executive Committee will provide the authority, the Coordinating Council the overall integration, and the subcommittees the specific tasks of developing programs for target groups, ultimately one person must assume responsibility for seeing that the entire effort is orchestrated from beginning to end. This person should be selected by the Governor and given the backing of that Office. Because every State is unique in its strengths and needs, no further comment will be made about the unusual combination of talents and characteristics that this key person must possess.

It would be the responsibility of the Coordinating Council to take the products of the subcommittees and integrate them into a cohesive overall Plan. Before actual implementation is undertaken, the Coordinated State Plan would be submitted to the Executive Committee for approval and for whatever additional action and authority may be required from that group.

Once the Executive Committee has endorsed the overall Plan, much of the actual implementation of techniques would be initiated by the subcommittees with the support of the Coordinating Council. Throughout this entire process the Key Coordinator would be taking whatever steps necessary to maintain smooth operation and integration of the various program components.

It is essential in any such State Plan to insure that all interested and/or affected parties are fully informed not only of the proposed activities but also, and perhaps more importantly, of the rationale behind them. Only in this way can it be anticipated that the public in general will be able to appreciate the State's efforts in this area. Where such appreciation exists, general support for the Plan will follow. [28] [29]

Funding

The question of finances has not yet been adequately addressed. While it is generally agreed that in the field of highway safety increased safety belts usage promises the greatest dividends for

the investment, it remains the case that the dividends will not be readily available to finance the Coordinated State Plan. Consequently funding must be located for the costs incurred by participants in the State program.

At a minimum these costs will include the following:

1. Travel expenses for members of the Executive Committee, the Coordinating Council, and the various subcommittees.

2. Cost of developing special data on the experience with Safety belts within the State.

3. Cost of preparing special materials such as posters and brochures.

4. Cost of training State employees and others in how to execute their roles in the State Plan, e.g., training driver license examiners, accident investigators, and PMVI inspectors.

While State budgets might already include funding that could be allocated to these efforts, it may facilitate the acceptance of the overall program if the Office of the Governor's Highway Safety Representative could fund those expenses that cannot be easily handled elsewhere. Although conditions will vary from State to State and from one State agency to another, it may be worthwhile to consider additional funding from the Office of the Governor's Highway Safety Representative to cover that portion of State employees time devoted to this effort.

Should the Coordinated State Plan succeed in its goal of significantly increasing safety belt usage, the citizens of the State should be the major benefactors and the investment of their taxes to subsidize this Plan should represent a responsible stewardship on the part of the State Officials.

SUMMARY

The various proposals described in the chapters in this manual will be more effective if they are integrated into a Statewide Plan. This chapter has proposed one approach that a State might consider in developing and implementing such a Plan. The Plan described will probably not meet the specific needs of any State but should be thought of as an idea bank from which portions may be selected and adapted to an individual State. Ultimately the program will be no better than the backing it receives from those in positions of authority. Even with such backing, success will be unlikely without

careful attention to laying the groundwork before any public announcement is made. As part of this effort use should be made of local crash data including systematic summaries reporting belt usage by injury. The selection of the Key Coordinator is a crucial one, and much will depend upon the personal characteristics of this one person. Nevertheless, a carefully conceived and sensitively implemented program promises significant dividends in health and economy.

Chapter 3

POLICE TRAFFIC SERVICES

"Police Traffic Services", as defined by the U.S. Department of Transportation,* includes several major areas for which police officers are responsible, in varying degrees. The major functions include:

- Traffic direction and control
- Traffic law enforcement
- Accident management
- Preparation and presentation of courtroom evidence
- Services for motorists

These responsibilities carry with them a multitude of opportunities for the encouragement of safety belt usage on the part of the motorists and the public with whom the officers come in contact. In addition, National Highway Safety Program Standard 15 issued by the U.S. Department of Transportation, which deals with police traffic services, states, in part, that there is a responsibility on the part of officers to "...reduce the deaths and injuries by improving police traffic services in all aspects of accident prevention programs, police traffic supervision, and post accident procedures...". [1]

In order to achieve the maximum possible support from the police officers and law enforcement agencies in each State for a safety belt program, it is necessary to provide educational opportunities and materials which are sufficient to impress upon the police officers, both rookies and veterans, the life saving potential of safety belt usage.

Following such an education, the officers must then be encouraged to promote the usage of safety belts in their contacts with the motorists and members of the general public with whom they have contact on a day to day basis. The police officer, with his unique position of influence and responsibility in the community, can be a vitally important segment in any Statewide coordinated campaign. Therefore, the active participation of police officials, public information officers and the rank and file police officers should be a primary goal of any coordinated program.

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*Police Traffic Services, Basic Training Program, Student Study Guide, Vol. 3, No. 3, DOT/HS 800 720, October, 1972.

This chapter, then, will discuss mechanisms which can be utilized to educate police officers and, in addition, will present suggestions for the active promotion of safety belt usage by those informed officers.

1. Education of Police Officers - Highway Safety Program Standard 15, as issued in 1968, mandates explicitly the availability of "uniform training procedures in all aspects of police supervision of vehicular and pedestrian traffic related to highway safety, including use of appropriate instructional materials and techniques for recruit, advanced, in-service and special course training." It also states that "periodic in-service training courses for uniformed and other police department employees assigned to traffic duties (be provided) dealing with:

- Administration and management of police, vehicular and pedestrian services.
- Analysis, interpretation and use of traffic records data.
- Accomplishing post accident responsibilities."

The mechanism then, presently exists for the education of officers, and it remains only to obtain the cooperation of the involved police agencies or police academies in order to include educational materials and background materials which will emphasize the importance of safety belt utilization. In addition to those materials, it may also be possible to utilize local safety, insurance, and government personnel in the capacity of guest lecturers or instructors in the various training programs. [2]

In providing an educational experience regarding safety belts to police officers (especially veteran officers), it must be realized that they represent a specialized segment of the population. The expertise and experience of the trained law enforcement officer may mean that his positive or negative biases regarding safety belt effectiveness may be more pronounced than that of the general public. For this reason, the education process for these officers may require a more detailed examination of belt effectiveness by collision type, speed, etc. than might be necessary for other groups. Additional information on the mechanism of injury and how the belt alters this mechanism could be given.

For example, if there are police officers who approach safety belt usage with a negative attitude based upon unpleasant experiences of an anecdotal nature, materials concerning the changes in the odds of a fatality or injury should be used. The attitude here is, "Yes, there are certain cases when the belts cannot save lives or reduce serious injury and other cases when

the belts themselves cause injury. But based on sound collision data, the odds of surviving a crash with a belt are at least four times greater with a belt than without one.* Since the average driver cannot control the type of crash he gets into very well, he has to go with the odds." A detailed discussion of the level of effectiveness displayed by restraint systems when correlated with vehicle impact location may be of use here.

An additional educational process for a police unit might be a self-conducted study of belt effectiveness in crashes. Since the officer is making a detailed investigation of the collision, he could look for injury causes (head against windshield, partial or full ejction, head, arm or side injuries in opposite side impacts, etc.) for belted and non-belted drivers and record them. While the "bad example" may stick in his mind, the larger sample will indicate the overwhelming benefits of the devices. Thus, the primary emphasis of the overall educational program with regard to safety belts should be to present benefits in a realistic manner to encourage the acceptance of belt usage by officers themselves, and to encourage their active support of belt usage by the general public. This approach may not be so acceptable when dealing with segments of the population who are not so knowledgeable and experienced as police officers, because of the tendency of the average citizen to seize upon any negative aspects of belt usage as an excuse for not utilizing those belts.

Keeping in mind the above goals and suggestions, the following mechanisms might be utilized in the education process:

1a. Background Material on the development and usage history of safety belts.

1b. Films demonstrating the effects of collisions on belted and unbelted drivers.

1c. Seat Belt Convincers utilized both on rookies and veteran officers to provide them with first hand knowledge of the injury abating and life-saving potential of belts when used properly.

1d. Statistics taken from the traffic records of their own locality (if available) can be used to demonstrate the importance of safety belt usage. Especially important here is to publicize specific instances of crashes when safety belts were used effectively or failure to

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*Campbell, B. J., O'Neill, B., Tingley, B. Comparative Injuries to Belted and Unbelted Drivers of Subcompact, Compact, Intermediate, and Standard Cars, University of North Carolina at Chapel Hill, Highway Safety Research Center, July 1974.

utilize belts might have caused death or severe injury. Here again the information with regard to belt effectiveness versus impact location and related information should be explored.

1e. Panel Discussions can be an effective tool with which to overcome the negative attitude, discussed earlier, on the part of some officers. Ideally, the discussion would include a number of officers with such negative anecdotal data to be offset by a similar number of officers with a positive attitude and favorable anecdotal information. The panel should also include an outside resource person with a degree of expertise in the area of traffic safety and safety belt usage and design. Such a discussion, with an open-ended question and answer session to follow, allows officers to give vent to questions and emotions which, if not discussed and resolved, can interfere with a positive learning experience on the part of these individuals.

1f. Supervision through supervisory personnel at roll call or radio check in, a reminder about safety belts could be incorporated. Police officers are considered professional drivers and as such should be expected to set an example for the public. Supervisors should insist that police officers provide such a professional model.

1g. Resolutions by the International Association of Chiefs of Police or other appropriate organizations could be encouraged. Although a single State cannot dictate policy to national and international organizations, these organizations include members from the individual States. Anything that these members can do to encourage passage of resolutions promoting safety belt usage by police officers would help to reinforce efforts at the State level.

In addition to the above noted mechanisms, the environment surrounding the educational experience can be an effective means of providing a positive reinforcement to classroom activities. The use of prominently displayed posters, pamphlets and handout materials can be an effective educational support mechanism.

2. Promotion and Enforcement - It is obvious that the education of police officers, in a manner which produces enthusiastic and concerned supporters of safety belt usage, is of the utmost importance. Once that has been accomplished, there are a number of methods which can be utilized by these officers in carrying their message and concern to the individuals with whom they come in contact. Some such methods include: [3]

2a. Safety Belt Utilization by Police Officers - By using safety belts in a regular and conscientious manner themselves, officers can provide a positive influence on the behavior of others while protecting their own lives and health. It is accepted that with all of the equipment officers are required to carry on their persons, the use of standard safety belts can be inconvenient. However, the small amount of inconvenience encountered in using the safety belts can be greatly offset by the protection provided and the favorable impression on the rest of the community. Indeed, use of available safety belts should be a requirement of the enforcement agency. [4]

2b. Traffic Law Enforcement and Accident Investigation - The only exposure that the majority of the citizens have to the law enforcement and justice system in the United States is in their frequent or infrequent experience with police officers relating to a traffic offense. It is very important that the experience be as pleasant as possible (even though a citation might be involved), so that the citizen carries away a favorable impression as to the professionalism and genuine concern of the involved officer. To accomplish this will require great sensitivity on the part of the officer. If there is concern about combining a safety belt communication with a traffic law enforcement encounter, it may be that a carefully prepared brochure on the subject could be given to the citizen with little or no comment. [5] [6]

With an accepting public, safety belt usage could be promoted by enforcing those laws which are related to safety belt usage. It is essential that officers be aware of any existing laws regarding safety belt usage, vehicle inspection (as relates to safety belts), licensing laws or court restrictions which affect citizen belt usage. By conscientious enforcement of such laws, the public is made aware of the importance with which belt usage is viewed in their locality.

Accident investigation is another avenue by which officers can have an impact on safety belt usage. In conforming to Highway Safety Program Standard 15, which states that officers should have "Procedures for investigating, recording and reporting accidents pertaining to... the human, vehicular, and highway causative factors of injuries and deaths, including failure to use safety belts," , there are two positive functions which can be considered. The first positive function related to the keeping of accurate safety belt usage information is the increased availability of accurate traffic records within the State with regard to belt utilization. The second positive function is to increase information

to the public. Most States rely upon their law enforcement agencies to supply up-to-date statistics regarding auto-related deaths and injuries. How much could the effectiveness of such statistics be increased if the information were available as to the number of dead and injured who were or were not wearing restraint systems? Similar information could also be provided to the newspaper reporters who are covering the collisions. Belt information could be included in their accounts of collisions (for example, driver died--was ejected because he did not have on a belt).

2c. Courtesy Contacts - In addition to the apprehending of motor vehicle law violators and investigating of crashes, police officers are involved in a number of other contacts with the driving public. These include providing assistance to motorists having car or other trouble, traffic control, and issuing of warnings to motorists with defective equipment on their vehicles. In these and other similar contacts, the simple act of vocal encouragement of safety belt usage for drivers and passengers can be a positive factor in building public confidence in the concern of officers for the safety and health of the people they serve. In addition, it can act as a positive reinforcement of safety belt messages received from other sources. [7]

Depending upon the cooperation of the police departments involved, it may also be possible to obtain the services of police officers in distributing safety belt information, pamphlets, and brochures, where it does not interfere with the performance of their official duties. For instance, as noted above it may be possible for the officers to hand out a small pamphlet containing safety belt information in conjunction with warnings to motorists.

2d. Roadblocks - Another activity engaged in by most police agencies is to conduct spot checks at roadblocks to determine that drivers are licensed and that their vehicles are properly registered and equipped. Such inspections provide an ideal opportunity and setting to inspect and urge the use of safety belts and restraint systems. The latter is especially important with regard to child restraint systems. [8]

2e. Public Appearances - In many instances police officers speak to schools, citizens groups, and community service groups concerning traffic safety. As a part of a coordinated Statewide safety belt program, the officers can make effective presentations documenting the need for and importance of safety belt usage. [9]

SUMMARY

The police officer plays a very special role in our society, that of protecting and defending the general public's health, safety and property. In this position, the officers are able to provide a source of influence and encouragement for belt usage that is available in no other segment of the population in exactly the same way. For this reason, it is vitally important that each officer be educated and informed as to the life-saving and injury reducing potential of lap and shoulder belt systems. An educated and dedicated officer who is enthusiastic and concerned about the promotion of safety belts usage is an important asset to any coordinated campaign.

Chapter 4

ACCIDENT INVESTIGATION

While the authority to perform accident investigations is usually provided in the motor vehicle code of each State, there is also a national basis for such investigations included in National Highway Program Standard No. 18 issued by U.S. Department of Transportation. This standard is devoted to accident investigation and reporting and sets guidelines for such activities. In addition to lending support to the various State programs, the standard also provides a basis for uniformity from State to State.

Accident investigations are conducted in order to gather information detailing the particulars of motor vehicle traffic crashes. The investigations can provide to various governmental agencies and other interested organizations such information as: who was involved, what is purported to have taken place, when and where the collision occurred, and, in some instances, why and how the collision came about. [1]

In addition, accident investigations provide information about the driver, the injuries to involved parties, fatalities, road conditions, and other relevant observations. This information provides a base from which State government officials can develop and implement countermeasures programs through research, legislative activities (when needed), and subsequent crash prevention programs. For this reason, it is essential to any successful coordinated safety belt encouragement program that questions concerning safety belt usage be considered within the spectrum of information gathered in an accident investigation. [2]

All of the scientific studies of the benefits of belts in actual crashes are, in the final analysis, based on the ability of the officer or other investigator at the scene to describe or determine accurately several key factors:

(a) Were the occupants in question actually belted?
(b) What kind of crash configuration was involved?
(c) What kind of structural damage occurred to the car?
(d) What kind of injury was sustained by the occupants?

Determination of belt usage status is not easy, in view of the chaos at the scene, but errors in reporting belt status can be devastating in throwing off the accuracy of the estimates of belt effectiveness. For example, if a person escapes injury even though not belted, and the officer erroneously concludes that he was belted, the belt is made to appear more effective than it actually is. Furthermore, only a small percentage of such errors can produce a very large error in the overall effectiveness determination with regard to belts.

Routine police reporting of crashes should always include belt use data and speical effort should be made to get the correct information. A detailed discussion of how this can be accomplished is included in this chapter and also in chapter 3.

Accident investigation, at least for the purposes of this manual and its involvement in a safety belt campaign, is divided into two interrelated functions. The most important function, of course, is information gathering, for this is the essence of investigation. There is, however, a corollary function which depends upon the quality and quantity of the information gathered --- communication and promotion. These areas are referred to in other chapters of this manual in greater detail, but are mentioned here in their specific relation to accident investigation. [3]

This chapter will review these areas of accident investigation with regard to their importance and usefulness in a coordinated safety belt encouragement program. The primary emphasis will be on the information gathering process. While it is the intent and purpose of this chapter to encourage the inclusion of safety belt and restraint system information into the accident reporting system of every State, the information will only address some possible methods of gathering and using the data, without presuming to provide model programs.

1. Information Gathering - There are a number of individuals who have an input, or the opportunity to provide an input, into the information gathering process. They include members of law enforcement agencies, medical and emergency medical services personnel, and individuals employed in various capacities in the insurance industry (primarily adjusters). Due to the fact that police officers are usually among the first to arrive at the collision scene, and are primarily responsible for the investigation and reporting of these collisions, they are a most important factor in the gathering of quality information. [4]

1a. Police Services - Police Traffic Services is considered to be of sufficient importance to the overall safety belt emphasis program to have a separate chapter (Chapter 3) devoted to its contribution. Police Traffic Services, however, must also be explored, to some degree, in relation to this specific component of accident investigation.

In chapter 3, the importance of informed and dedicated officers, with respect to safety belt usage, is outlined. With regard to accident investigation, the primary need in safety belt related programs is to improve the accuracy and quality of safety belt usage data. The availability of such data provides a threefold benefit to the State. First, it provides the necessary information, statistics and comparison data upon which any safety belt encouragement program is based and which is vital to any public information and education program (see chapter 12). Second, and perhaps equally as im- [5]

portant an accurate, high quality, gathering of safety belt information in the accident investigation process provides a long-term method for evaluating the effectiveness of safety belt programs. Third, the concerted effort by the involved law enforcement officers to gather safety belt information provides "on-site", first-hand feedback and reinforcement to those officers and persons involved in the collisions as to the importance of safety belt utilization.

To improve the accuracy and quality of such data, the logical avenue is a well-informed officer who is aware of the importance of such information to the saving of lives and the reduction of crash injury severity. [6]

In order to provide the necessary education to officers, a number of techniques have been detailed in chapter 3. In addition, a very important part of the education process is to make certain that the officers are aware of how the accident investigation information that they gather is being utilized and how important the belt usage information is to the determination of safety belt effectiveness. This can be accomplished through regular reports back to the officers on the information which has been gathered and what use is being made of it. [7] [8] [9]

In workshops and education experiences, the officers can be provided with a series of hints or "investigative clues" which will better enable them to determine the status and usage of restraint systems. For example, the officers can be encouraged to verify the operating condition of the belts, whether they are knotted, fastened behind the seat, or rolled under the seat cushions. [10] [11]

In addition, for those States not presently reporting restraint usage, officers can be made increasingly aware of safety belt usage importance through the expansion of accident report forms to include restraint information. An alternative mechanism is available in the utilization of a supplemental report which might be attached to the accident reporting form, dealing specifically with safety belt usage and condition information. The supplemental forms negate the need for immediate changes in accident reporting forms and also allow the safety belt information to be separated easily. The supplemental forms can, therefore, be utilized to provide feedback on the effectiveness of special safety belt programs. [12]

Such supplemental forms have the potential for providing information concerning "first impact" (the collision of the vehicle with another vehicle or structure) and the "second collision" (in which drivers and occupants of the vehicle are thrown into interior structures of the vehicle and each other). An example of a supplemental form is included at the end of this chapter.

1b. Emergency Medical Services - If the law enforcement officer is first on the scene of the crash, in serious crashes, emergency medical services personnel are not far behind. These individuals are, for the most part, highly qualified and skilled technicians who are trained to render aid and rescue assistance at the scene. As trained observers and practitioners, they are in a position to provide information to reporting law enforcement officers regarding initial determinations of injury severity, types of injuries, and other information which can be of assistance in the determination of restraint system usage and effectiveness. This could be accomplished by including belt usage information into the EMS report form. Also, in the event that the emergency medical personnel have to remove the injured from the scene before the arrival of the police officers, belt usage information could be collected by the EMS personnel and then forwarded to the officer investigating the crash. [13]

1c. Medical Services - The initial determinations of emergency medical services personnel as to injury severity and type can be supplemented by those involved emergency room personnel and physicians at the hospitals where victims are initially taken for treatment. Realizing that both the law enforcement and medical professionals have as their first responsibility duties other than the determination of restraint system usage, it is of primary importance that the forms to be completed and the questions to be answered be kept to a minimum. The reporting forms should be simple and to-the-point, and take as little time as possible to complete. With simple reporting techniques and an educational campaign as to the importance of the information, both in the medical and law enforcement areas, cooperation and support can be greatly enhanced. Emphasis should be placed on how collection of good safety belt information is in keeping with the commitment of medical personnel to the preservation of life. [14]

1d. Medical Examiners - In the case of a fatality, failure to use safety belts could be considered as a contributing cause of death, and such information could be included in the report completed by the medical examiners. At periodic time intervals, the office of the Medical Examiner could also publish the number of fatalities which are associated with nonusage of belts. [15]

1e. Insurance Industry - After the law enforcement and medical professions, there is probably no group with a greater interest or stake in the utilization of safety belts and restraint systems than the insurance industry. Segments within the industry have long been proponents of restraint [16]

system usage to decrease injury severity and frequency. The individuals within the insurance industry who have the most frequent contact, and therefore the greatest potential input, to the accident investigation and reporting process are the independent and staff adjusters, employed by the various companies.

Insurance adjusters usually become involved in any crashes where there is significant property damage or personal injury. It is their responsibility to personally investigate and report on the extent and probable cause of the damage, as well as the severity of injuries. This, most often, requires the adjuster to examine the vehicles, interview theinvolved parties and, in some cases, inspect the scene of the crash as well. It is , therefore, extremely important that insurance adjusters be made aware of the importance of observing and collecting safety belt and restraint system information.

The reports which are filled out by the adjusters for the insurance companies are, for the most part, confidential. However, after removing any personal identification the appropriate information could be considered for inclusion in the State data bank. Also, the general cooperative nature of the professional adjusters associations, makes it possible, and even probable, that supplementary forms of a brief nature, which could be filled out in conjunction with their investigation, would be readily accepted and integrated into their duties. These forms could be in post card or mailer format, so that they could be transmitted to interested State authorities easily and on a regular basis.

The key, once again, is the education of the individual [17]
adjusters as to the importance of their potential contribution. As a part of the public information and education process, these individuals should be approached through their companies and associations with the availability of government personnel and safety professionals to present workshops and seminars in safety belt usage encouragement.

1f. National Accident Sampling System - A corollary development which may be of assistance to States in its pilot form, and which will certainly provide a valuable resource in its final form, is the National Accident Sampling System (NASS), which is currently being developed by the U.S. Department of Transportation. [18]

This system, when completed, is intended to supply a basis for estimates of national totals, trends, and costs of specified types of collisions, and will facilitate the evaluation of the need for and effectiveness of safety standards and countermeasures programs. NASS will essentially collect nationally representative data using accident research

teams. A fairly large number of crash cases will be collected on an annual basis and provide a framework within which timely studies may be performed. Its long-term goal is to provide a continuous data collection network.

In its pilot form, the system will utilize a minimum of 35 teams to collect a probabilistic sample of the nation's collisions in various locations. These investigations will involve a team of 3 to 5 specialists who will inspect vehicles and crash sites, as well as interview drivers and vehicle occupants. Such investigations should, therefore, provide an added source of information on restraint usage and occupant injuries to States where such teams are located.

The reports involved in the NASS program will include information on countermeasure availability and usage. Data such as: type of belt system available; belt system usage; restraint system failures such as tears, unlatching, reel release, nondeployment and other related factors; head restraint availability; and head restraint position will be included in the NASS reports, as well as the distribution of injuries for restrained and unrestrained vehicle occupants. The reports will also contain detailed driver and injury information.

The NASS program is not intended to replace or negate the need for quality data collection at the State level, and is not suggested as such within the context of this manual. The system, however, can provide a quality data collection asset for the purpose of strengthening an individual State's information base. As it is perfected and fully implemented, the NASS network will be a valuable aid to the overall collection efforts of the States.

2. Communication and Promotion - As has been noted, the primary purpose of the accident investigation and reporting function is to act as a data collection mechanism. There are, however, a number of ways in which accident investigation can be used in the communication and promotion of safety belt usage. Some of the techniques available are covered more extensively in other sections of this manual, but virtually all involve the personnel noted in the preceding paragraphs, namely the law enforcement, medical and insurance communities. In addition to utilizing the collected data as a basis for public information and education programs to the general public, there are also other communications opportunities including:

2a. On-The-Scene Communications - Police officers who are investigating the crash can provide person-to-person reinforcement for safety belt usage to motorists involved in crashes, at the scene. While this mechanism is neither expected nor encouraged in serious crashes involving extreme injury or death, it can be utilized effectively in crashes in which there is minor injury or serious [19]

property damage, at the discretion of the officer involved.

2b. At-The-Hospital Communications - The emergency room personnel and attending physicians may be encouraged to indicate to patients the extent to which injuries could have been reduced or prevented through utilization of restraint systems. Once again, this would, of necessity, be left to the discretion of the involved personnel and would certainly not be encouraged in the event of serious injury. It would best be conducted during post treatment visits by the attending physicians. [20]

SUMMARY

The importance of the accident investigation and reporting process within each State cannot be over-emphasized. Without accurate and complete safety belt utilization data with regard to auto crashes, the evaluation of any coordinated safety belt usage campaign is severely hampered. For this reason, it is vital to educate and encourage the involved law enforcement, medical and insurance personnel, in order to obtain complete and detailed usage information.

While the U.S. Department of Transportation is, at present, formulating a mechanism to facilitate more accurate and complete national crash statistics, it remains incumbent upon each individual State to provide the most complete and precise statistical information possible for the benefit of its governmental agencies and subsequently its citizens.

A SAMPLE SUPPLEMENTAL ACCIDENT FORM FOR COLLECTING SAFETY BELT USAGE DATA

Form SR-004

NORTH CAROLINA
DEPARTMENT OF MOTOR VEHICLES
SUPPLEMENTARY REPORT ON SEAT BELTS

Occupant Position:
Front of Car

Driver -A-	-B-	-C-
-D-	-E-	-F-

CODE

Injury:
Same as on accident report
No = no injury

Restraint System:
Lap: Lap belt
Shld: Shoulder belt
Both: Combination of lap and shoulder belt
no: no restraint
Child: Child restraint

Source of Information:
I: Direct observation
Him(Her): Subject
Occ: Vehicle Occupant
Wit: Witness
Other: Please specify in comments

Confidence in Information:
++ Positive
+ No reason to doubt
- Some doubt
-- Unsure

Name:

Troop-District:

Registry number:

Date of Accident:

Vehicle number:_____ (Same as number on accident report) Number of Occupants:_____
(For each occupant, circle the information according to the code)

Occupant	Age	Sex	Injury	Restraint Installed	Restraint Used	Information	Confidence
Driver -A-		M F	K A B C No	Lap Shld Both no	Lap Shld Both no	I Him Occ Wit Other	++ + - --
-B-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-C-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-D-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-E-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-F-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --

Comments:

Vehicle number:_____ (Same as number on accident report) Number of Occupants:_____
(For each occupant, circle the information according to the code)

Occupant	Age	Sex	Injury	Restraint Installed	Restraint Used	Information	Confidence
Driver -A-		M F	K A B C No	Lap Shld Both no	Lap Shld Both no	I Him Occ Wit Other	++ + - --
-B-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-C-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-D-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-E-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --
-F-		M F	K A B C No	Lap Shld Both no Child	Lap Shld Both no Child	I Him Occ Wit Other	++ + - --

Comments:

Chapter 5

TRAFFIC RECORDS

Very soon after the incursion of the automobile into the American transportation scene, the States became aware of the need for information on cars and drivers. By the early 1930's rudimentary traffic records systems were already being formulated and utilized to determine the number of drivers, automobiles, and crashes.

More recently there has been a concerted movement by the various States and municipalities to upgrade and computerize their traffic records systems. The National Highway Safety Standard Number 10, issued by the U.S. Department of Transportation and covering Traffic Records, encourages cooperation between the State and local jurisdictions in making available information concerning traffic activities. The national government has also published the "Design Manual for State Traffic Records Systems,"* which describes the format and content of a model traffic records system.

The primary function of traffic records is to provide a detailed representation of vehicles, drivers, crashes, and other variables within the motor vehicle transportation system. A secondary, but very important, function of traffic records is to provide basic information which can be utilized in traffic safety programs. It is this secondary function...especially as it relates to safety belt programs...that is addressed in this chapter.

In relation to traffic safety programs, traffic records provide the capability to quantify relationships between the various factors that influence collisions and injuries. In safety belt use programs, such records provide a mechanism through which decisions may be based on actual restraint system utilization. Traffic records, however, are only "bits and pieces" of information. In order for these bits and pieces to become useful, they must be incorporated into a formalized traffic records system.

This chapter describes a traffic records system, including the types of information which can and should be incorporated. It also discusses how safety belt information fits into a traffic records system, and finally addresses the question of how such information should be used.

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*National Highway Traffic Safety Administration. Design Manual for State Traffic Records Systems. 1973

1. Traffic Records Systems - A traffic records system, in the formal sense, is comprised of the sources that generate or collect data, mechanisms for data filing and storage, mechanisms for data retrieval and analysis, and a method by which users of the system may apply the data to improving elements of the highway safety program.

With such a system for support, program officials can define the nature and magnitude of the traffic collision problem, and subsequently identify short term changes or long term trends in traffic crashes. The system can, for example, provide information to assist in detecting high crash locations; outlining factors contributing to collisions; designing countermeasures; elevating countermeasure effectiveness; and the planning and implementation of traffic safety programs combining any number of elements. In fact, the design, implementation and evaluation of traffic safety programs is virtually impossible without a formalized (and preferably computerized) traffic records system. [1]

A State traffic records system usually consists of at least three records subsystems, with each subsystem providing information on its operating counterparts. The three subsystems include a records system for: (1) driver licensing and improvement, (2) vehicle registration, and (3) accident reporting. [2]

1a. Driver Licensing and Improvement - This subsystem keeps records on all licensed drivers within the State. Name, address, birthdate, and sex of the driver are recorded for identifying the driver and linking him to various other records (vehicle and accidents). The licensing information (type of license, restrictions, etc.) can be used for renewing or reinstating licenses. An inventory of convictions and dermerit points is also kept on each driver. Generally when a driver's conviction record approaches a critical value, the records are reviewed and the proper driver improvement actions (warning letter, conference, clinic or suspension) initiated.

1b. Vehicle Registration - A record of vehicle ownership is kept in this subsystem. The records are updated at least once a year through the annual vehicle registration program. In addition, title transfers for vehicles acquired during the year are recorded at the time of the transaction. This information is often used by vehicle inspectors and by enforcement officers (for example, to check on stolen vehicles).

1c. Accident Reporting - A traffic records system would not be complete without a Statewide accident reporting system. Without this subsystem, it is impossible to determine the

the effectiveness of a traffic safety program. A program's effectiveness is normally measured in terms of crashes reduced after implementing the program. The detection of a crash reduction cannot be determined unless something is known about the prior level of crashes. Therefore, an accident reporting system is crucial to program administrators who are interested in knowing how their programs are functioning.

A recent NHTSA survey showed that nearly every State utilized a Statewide accident reporting system. This is made possible with a standardized accident report from used by every accident investigating officer in the State. Although States vary in the information requested from the investigating officers, most States' accident forms have information which identify the driver (license number, name, address, birthdate, and sex), the owner of the vehicle, the vehicle (make and year), the location of the crash (by intrastate jurisdictions, towns or cities, or by roads and intersections), property damage, injuries, the time and day of the crash, the environmental conditions (lighting, weather, road condition, etc.), and the actions of the driver before the crash. Finally, any police actions, charges or arrests are recorded by the investigating officers.

All three record subsystems should be designed in such a way as to permit proper interfacing to form a well coordinated traffic records system. Consequently the outputs from the combined system could be provided to program officials who conduct overall planning for the State's traffic safety programs.

2. Safety Belt Information - In order for safety belt utilization figures to be retrievable from a traffic records system, they must first be collected and entered into the system. Unfortunately, this information is not given the priority it deserves in many States. Currently, the accident report forms for nine States do not even have space for restraint systems or their usage. Of the 42 jurisdictions (including Washington, D.C.) that have safety belt information on their accident forms, 26 determine only if belts were installed while 24 States make a distinction between lap and shoulder belts. It is rare that belt defects are noted. The "Design Manual" mentioned earlier recommends that safety belt usage be indicated only for each injured person in the accident subsystem. This failure to record belt usage of the noninjured occupants would not permit a fair evaluation of the effectiveness of the restraint systems in use. Indeed, all information is lost on those instances in which belt usage prevented any injury whatsoever. [3] [4]

Another area for improvement is in the quality of the information obtained by the officers concerning safety belt use. A study by Hochberg* showed that belted drivers were often misclassified by the investigating officer as not wearing belts according to the accident reports. A follow-up telephone interview of noninjured drivers revealed that the majority of these drivers reported that they were never asked as to whether they were wearing belts at the time of the crash. Similarly, a check of hospital records on the injured drivers confirmed the finding that driver's safety belt usage was underestimated in the police accident reports. [5]

This type of error is quite reasonable if we consider how busy the investigating officer is at the scene of the crash. The foremost task at that time is, rightfully, moving the injured to the hospital and redirecting traffic. In terms of completing the accident form, he probably attends more to who was involved, and where and how the accident happened than to who was or was not wearing safety belts. Nevertheless the crucial importance of accurate safety belt usage information needs to be conveyed to investigating officers so that every effort within reason is made to collect such data.

The possibilities for gathering high quality safety belt information, however, are numerous within the various subsystems. The following is just a sample of the ways the subsystems can be used:

2a. Driver Subsystem - can be modified to contain safety belt utilization information concerning every accident and violation experience on an individual's driving record.

2b. The Vehicle Subsystem - is easily able to contain information regarding the type, number, and position in the vehicle of restraint systems that were manufactured into the vehicle. In addition, the subsystem could include information on the operating and utilization status of the belts as reported in the periodic motor vehicle inspection (see Chapter 8), and belt utilization during collision experience.

2c. The Accident Subsystem - should contain information about the manufacturer's safety features (including belts) for all vehicles involved in a crash. The safety belt utilization status for injured occupants should also be recorded, as well as the safety belt usage for all occupants involved in the crash.

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*Hochberg, Y. Problems of inference in studies of seat belt effectiveness. National Highway Traffic Safety Administration, DOT-HS-4-00897, January, 1976.

3. Analysis of Data - The collection and storage of detailed information on drivers, vehicles, and crashes is, of course, of little use until the data are retrieved and compiled in some meaningful fashion. Focusing more specifically on safety belt information, it can be used to support legislative programs (such as those described in Chapters 7 and 9); to provide a basis for the education of police officers, emergency medical personnel and physicians, driver license examiners and driver education teachers; to supply the foundation materials for a coordinated public information and education program (see Chapter 12); and even to assist manufacturers in determining the need for vehicle and restraint system improvements, and insurance companies in formulating and adjusting insurance rates.

In the determination of the relationship between safety belt utilization and occupant injury, the restraint system characteristics which should be examined include usage at the time of the crash, normal level of belt usage, type of restraint system, and restraint system defects. Factors which can be used in injury severity measurement include type of injury, degree of injury, number of injuries and number of non-injuries. Other variables which should be considered in the determination of the correlation between restraint system usage and injury include: occupant age and sex, occupant position, occupant sobriety, crash type, crash severity, speed of vehicles involved, and vehicle type.

Analytic studies should be conducted on an annual basis to depict the status of safety belt usage. Results should be compiled not only in Statewide summaries but also by political subdivisions, by driver age and sex, by vehicle make and model, by accident severity, and so forth. These summary statistics should be widely distributed with special attention given to seeing that local jurisdictions are aware of the experience within their area. In this way citizens can become more sensitive to the safety belt issue, its costs, and its benefits.

SUMMARY

The overall traffic records system, if correctly designed and implemented, provides the foundation for successful traffic safety countermeasure programs. Among these programs, as indicated in the introductory chapter, there is no countermeasure that has the potential return for so little monetary outlay as safety belt usage. The use of traffic records is vital to any coordinated safety belt campaign, in that they provide the necessary statistical and background information for educational services and the informing of concerned legislators, public officials, community leaders and the general public. Furthermore, they provide the basis for establishing the impact of a safety belt program.

Chapter 6

TRAFFIC COURTS

The traffic courts, as defined in National Highway Safety Program Standard 7, issued by the U.S. Department of Transportation are charged with the responsibility of "providing prompt, impartial adjudication of proceedings involving motor vehicle laws." While there is no explicit direction within that standard to assist or provide encouragement with regard to safety belt usage, the judges within that area of responsibility are in a position to play an extremely important role in promoting safety belt usage.

The standard is worded in such a way as to give a broad latitude to the traffic courts, in that they shall "complement and support local and statewide traffic safety objectives." There can be little question that the encouragement of increased safety belt usage on the part of drivers who come in contact with the judicial process as the result of inappropriate driving behavior falls within the realm of the traffic court's mandate.

How then can this be accomplished? The primary source of influence in the traffic courts lies with the judges and magistrates who come into day-to-day contact with the traffic offenders, hearing the cases, levying the fines or jail terms and imposing attendance at traffic safety schools. In the majority of cases, the contacts with police and courts as a result of traffic offenses are the only ones experienced by the citizens involved and thus these experiences mold their impression of American justice.

The actions and attitudes of these judges are, therefore, [1] extremely important with regard to the impressions carried away from the traffic court experience by the traffic offender. Positive steps showing concern for the defendant's welfare such as urging safety belt usage can benefit both the overall impression of the judicial system and a coordinated safety belt campaign.

An important secondary influence, however, is the environment in and immediately surrounding the courtroom itself. Of equal importance are the various types of correspondence and other methods of communication which are utilized with regard to a traffic related court appearance.

There are then, three major spheres of influence within the [2] traffic courts. These can be defined as judicial, environmental and communications. This chapter will attempt to provide an overview of these areas with regard to their implementation and inclusion in a coordinated safety belt program at the State level.

1. Judicial - In order to involve the judiciary to the greatest possible extent, it is necessary to increase the appreciation of the individual judges as to the importance of safety belt usage and to help them understand how encouraging belt usage is in keeping with their commitment to support highway safety measures. This can either be accomplished through educational materials, e.g., brochures, [3] letters and background information, or through the use of educational workshops and formalized training programs, many of which are already available and utilized by the judiciary as a means of continuing education.

1a. Instructional Materials - In coordination with the overall public information effort, materials can be developed which incorporate local and Statewide statistics with regard to safety belt related injuries and deaths. Information should also be included outlining and detailing the possible contributions of traffic court judges and traffic court rulings in the reduction of traffic related deaths and injuries. It is important that the judges be aware of their impact on the individual driver. Additional information might be included which outlines the estimated belt usage within the State where the judge presides and might even be localized to the city or county over which the judge has responsibility. Figures outlining the financial impact upon the population of crashes and injuries which are enhanced by lack of proper safety belt usage can also be an important factor in convincing the individual judges of the importance of safety belt utilization.

1b. Information Materials - Judges should also be [4] provided with background and informational materials to fully acquaint them with the organizations, departments, agencies and private citizens' groups which are cooperating in an organized campaign to increase safety belt usage. This will enable them to comprehend the scope of the overall campaign and will, hopefully, impress upon them the importance of their possible contribution to the cooperative effort. An opportunity also exists to develop special informational materials in a "Judges Packet," which are designed specifically for this specialized audience. By the development of "personalized" material directed toward the judges' possible contributions, a further mechanism is available for encouraging an enthusiastic response from the traffic courts. Judges can also be encouraged to participate actively in the campaign, in other than a judicial capacity, by

involving them in speakers bureaus, press conferences and other events in the overall campaign. The prestige they can lend and the special knowledge they can provide can be a great asset to the overall effort.

1c. Workshops - In many localities, there are "Highway Safety Workshops" sponsored for traffic court judges and magistrates either by local bar associations, the American Bar Association, State or U.S. Departments of Transportation. These workshops provide an excellent forum for presenting safety belt utilization information and also encouragement techniques which can be incorporated into the regular workings of the traffic courts. Where such workshops are not available, special safety belt workshops can be scheduled in the various cities or counties throughout the State. Ideally these special workshops can be coordinated with the overall Statewide campaign, so that personnel from the various State governmental agencies and departments, as well as individuals representing the involved private organizations, can be called upon to present, or at least participate in, the proposed workshops.

The workshops should provide an overview of the campaign and involve presentations of the efforts of participating units. Statistics, such as those included in the written material and regulations--where applicable--should be emphasized. In States such as California, Massachusetts, Minnesota, New York, and Rhode Island, for instance, where some type of safety belt usage law has been in effect since 1972 or earlier, requiring safety belt usage by certain types of drivers in certain vehicles, emphasis can be placed on these laws, their background and importance. In States which have no such laws, emphasis can be placed on the encouragement of voluntary belt usage and the safety aspects of such voluntary usage.

1d. Judicial Action - Once the information has been imparted to the judges who have responsibility in the area of traffic courts and they have a more complete understanding of the magnitude of the problem, a logical extension of the informational materials and workshops is to encourage judicial action from the bench. While the very act of encouraging belt usage from the bench and the questioning of defendants as to their use of safety belts can bring the importance of such [5]

usage to the attention of defendants and spectators alike, another more direct influence is the imposition of safety belt usage as a condition of sentence suspension or probation. [6] [7]

In most jurisdictions, the judge or magistrate has a great deal of leeway and personal prerogative in the imposition of fine, attendance at traffic safety schools and/or jail term. It may be possible, through personal contact, the "judicial sections" of State and local bar associations, and the administrative offices with responsibility for the conduct of the courts (where existent) to encourage judges to consider safety belt usage as a condition of retaining driver licensure. In such instances, the judge may levy a fine, require attendance at traffic safety schools, and suspend the incarceration portion of sentences with the stipulation that the defendant wear available safety belts. While it is understood that this would be for a finite period of time, it could be long enough to make safety belt usage an automatic reaction on the part of the motorists. [8] [9] It would also indicate the great importance placed on belt usage by the courts and law enforcement agencies in the State. This is not an unusual departure from such sentences as restricted driving licenses or other probationary conditions. While enforcement may be seen as a problem, it should be no more so than other probationary restrictions. The positive effect that this type of judicial behavior could have not only on the drivers who receive such sentences but also on the other individuals in the courtroom and who come into contact with the drivers so sentenced is extremely important.

The traffic safety schools to which courts sometimes assign defendants should definitely include sound information on safety belt effectiveness. Because the contact in these schools is usually much more extensive than that occurring in the courtroom, there is a greater opportunity for influencing the convicted defendant.

2. Environment - The experience of a court appearance for most citizens is a traumatic and, at the very least, a memorable one. [10] The impressions, sights and sounds of the experience are usually outside the "normal" environment in which such individuals exist on a day-to-day basis. For this reason, the impact of these sensory experiences may be much greater than those normally encountered.

In order to make the most of this heightened perception to encourage belt usage, the use of posters, handouts and brochures [11] in the areas surrounding the courtroom itself (where possible) is to be encouraged. Likewise, the use of pamphlet materials can be encouraged in areas where fines are paid and in waiting areas, which are indigenous to most court facilities. Such materials must present belt usage in a positive supporting vein and avoid any hint of admonishing the defendant lest they provoke a negative reaction. The use of such encouragement is well within the defined task of the traffic courts to "apply corrective forces and effective deterrents to drivers who ignore regulations made for their own and the general public's safety."* Even where there is no regulation, the responsibility of the traffic courts could be broadened to incorporate the "effective deterrent to behavior which is not conducive to the safety of the individual or the general public."

3. Communications - The opportunities for communication with those individuals who are required to make appearances in traffic court are admittedly few. However, in those cases in which letters or other documents need to be transmitted to an individual, such mailings provide an excellent opportunity for the enclosure of brochures, leaflets or other safety belt informational materials. It is accepted that such enclosures, by themselves, will not have a measurable effect on the behavior of the recipients; however, the positive reinforcement of the basic safety belt message from as many sources as possible is to be desired.

SUMMARY

This chapter has sought to review the possible ways in which the traffic courts can be integrated into a coordinated statewide safety belt campaign. The information presented here and the suggested programs are by no means the only ways in which the influence of the traffic courts can be utilized. However, by implementing the suggestions in this chapter and modifying them to conform to individual State traffic court procedures, a mechanism is provided to involve this most important part of the motor vehicle law enforcement community.

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*From: George Warren, Traffic Courts, New York: Greenwood Press, 1969.

Chapter 7

INFANT AND CHILD RESTRAINTS

The U.S. has long recognized that the health and well being of its children is a responsibility of society. As early as 1859, the New York Infirmary for Women began to give instruction to mothers on the preservation of the health and safety of their families. From this humble beginning, the emphasis on health care for children progressed to clean milk stations for infants in the late 1870's; required visual examination and screening of school children in 1903; annual physicals for children (in some States) in 1906; the establishment of the Federal Children's Bureau in 1912; Federal funding for health and social welfare under the Maternity and Infancy Act of 1921; and grants to the States through the Federal Children's Bureau under the Social Security Act of 1935. In recent years, the emphasis has broadened to include immunization programs for polio and other childhood diseases, which are required prior to children entering public school. [1]

Along the way, there have been other developments, such as the extablishment of health departments and the implementation of child hygiene divisions in the various States; immunization programs to combat various diseases; the development of maternal and child welfare programs; and a multitude of health education programs. There has also been growing interest among health officials in the area of child abuse, with several States having instituted emphasis on programs among social workers, police departments and medical personnel aimed at identifying and combating this problem. The efforts of such departments and programs have played a significant role in the medical advances necessary to greatly decrease the number of deaths in infants and children from diseases such as tuberculosis, typhoid, diptheria, and influenza. This very success, however, has served to magnify the role of traffic crashes in morbidity and mortality. Traffic crashes have emerged as the number one cause of death in young people from age one through the early thirties. This fact has been recognized for years; yet remarkably little attention has been focused on the availability and utilization of preventive measures in this most important area. [2] [3]

This chapter, with primary emphasis on the safety and restraint of children, will explore a number of mechanisms and techniques for encouraging the increased utilization of tested and approved child and infant restraint systems. Some of the methods may also be applicable and usable with other age groups, and where this is evident such measures should be incorporated into the coordinated safety belt usage encouragement campaigns of the States. The primary areas to be discussed in the following pages include physician education, physician participation, restraint system recycling and legislative options. [4] [5]

1. Physician Education - The primary emphasis in physician education is, of course, on healing those individuals who are sick. Of particular

importance here is the fact that these healers can also play a significant role in the prevention of injuries which accompany accidents, just as physicians now emphasize prevention of illness to some degree. Pediatricians have pioneered in the field of accident prevention, but for many physicians this shift from the traditional "disease-oriented" bias will require some further education, especially with regard to the importance of restraint system usage; but the efforts and materials expended in this endeavor can return a handsome dividend in the reduction of injury and death.

1a. The Role of the Coordinated Campaign - In States which have incorporated the coordinated program of safety belt encouragement outlined in this manual, the task of physician education and encouragement is greatly simplified. The materials developed for use in the public information and education campaign (see Chapter 12) can be tailored to provide the specialized information needed by pediatricians, obstetricians, surgeons, family practitioners, health clinic personnel, and others in order to facilitate understanding of the importance of restraint system usage -- especially as it relates to children. [6]

The Executive Committee of the coordinated campaign would include representatives from the medical community to simplify the communication of information and materials to physicians through the various associations and medical establishments.

In States which have not incorporated the coordianted campaign concept, but wish to involve the medical community in a safety belt usage encouragement program, the following steps would be suggested as a means of providing physician education:

1b. Statistical Information Collection - The Office of the Governor's Highway Safety Representative (OGHSR) in each State should be enlisted to provide a source of up-to-date information on infant and child restraint systems that meet or exceed performance standards. A State must determine whether standards will be based on recent crash test data or other criteria. OGHSR can also provide data for the State, detailing the extent of injuries and deaths experienced by restrained and unrestrained children in crashes. The information can thereby provide evidence with regard to restraint system effectiveness for use in physician education.

1c. Medical School - A logical place to begin physician education is at the medical schools. Information on restraint system effectiveness could be incorporated into early medical training, as a part of the program in Preventive Medicine.

1d. Workshops and Seminar Involvement - The most appropriate way in which to make contact with the greatest number of physicians is through medical societies and, where they exist, associations of specialties such as pediatrics or trauma surgery. Through these organizations, workshops and seminars can be established to provide information and materials to physicians to show them that traffic crashes represent a much greater threat to the lives and health of their young patients than any of the diseases from which children are so readily protected and that they, the doctors, can do a much more effective job of educating and convincing the parents than any other person or group can do.* [7]

1e. The Use of Public Clinics - Many families do not have a personal physician and, therefore, utilize clinics and health department services to provide necessary health care for their members. Personnel involved in such clinics and health department services should also be made aware of the magnitude of the traffic accident problem and potential contribution which they can provide to the families and children in their care.

1f. Medical Media - In addition to workshops and personal contacts, there exists another avenue through which safety belt communications may be directed to physicians. Most medical societies and physician associations have official newsletters and/or journals which can carry extensive information on the effectiveness of safety belts and infant restraint systems. Such publications could be provided with information either through OGHSR or through the public information and education efforts of a coordinated safety belt campaign (See Chapter 12).

2. Physician Participation - Although physicians need to be made aware of the effectiveness of restraint systems, perhaps a more important goal is to enable them to see their potential role in this area. Once they are aware of the enormity of the problem, they are in a unique position to provide a positive influence in the maintenance of health in the community and enable adults to recognize the importance of restraint systems for both themsleves and the children who may be passengers in their vehicles. The following are methods by which the influence can be exerted: [8] [9]

2a. Prenatal Visits - Most expectant mothers begin regular visits to their obstetrician or clinic several months prior to the arrival of their child. A great deal of information is communicated during these visits concerning the diet, health habits, and safety precautions necessary for a healthy newborn. What better place to start communicating the importance of proper restraint

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*Lieberman, H. M., Emmet, W.L., Coulson, A.H. Pediatric Automotive Restraints, Pediatricians and the Academy. Pediatrics, 1976, 58(3), 316-319.

system usage for the newborn? This setting provides an excellent environment in which to place restraint system usage within a positive framework.

2b. Regular Childhood Physicals - Many children, from birth to the beginning of school are examined on a regular basis by their pediatrician or clinic to insure the identification of any diseases or illnesses which might affect the child's physical or mental growth and progress. These checkups provide an excellent opportunity for the communication of the importance of proper restraint system usage when the infant is being transported in an automobile. The mothers of such infants are usually present during the examination and have a heightened awareness of what the doctor or medical practitioner is communicating. Materials and information can be presented to mothers at this time. Many physicians and clinics are also utilizing self-contained film projectors to explain certain diseases or procedures. The availability of a short film explaining the use of proper restraints for children would be a valuable tool for use by the physician in educating the parents and even older children.

2c. Adult Physical Examination - As indicated earlier in this chapter, there are mechanisms which apply to adults as well as children. Many adults also appear for regular or yearly examinations. During these checkups, questions are routinely asked concerning the health-related habits of the individual such as smoking, drinking and exercise. Since traffic crashes are the major cause of death through early adulthood, it would seem entirely appropriate to include questions concerning the individual's use of restraint systems and safety belts in automobiles. As with children, the physical examination of adults offers an excellent opportunity to convey to the patient the importance of such preventive measures.

2d. The Medical Environment - The waiting rooms and lobbies of hospitals, doctors offices, clinics and public health departments provide an excellent forum for posters, brochures and other safety belt related materials. The prominent display of these materials can be an effective communication tool for safety belt encouragement. In addition, hospital staffs or community volunteer organizations could present safety belt information to new parents and others within the hospital setting.

3. Restraint System Recycling - At this time the provision of infant and child restraints does not come under the jurisdiction of the State (with the possible exception of certain groups completely dependent upon the State). However, State efforts to increase the usage of approved infant and child restraints will be greatly enhanced to the extent that adequate restraint systems are readily available at a cost everyone can afford. Therefore a restraint system recycling program is described in this chapter whereby infant and child restraint systems can be made available in a community at a feasible cost.

The implementation of this technique can be undertaken in the absence of any legislation but once implemented it should make legislation in this area a much more realistic goal.

Federal Motor Vehicle Standard No. 208, which became effective on January 1, 1968, requires that "either a lap belt alone, or a combination lap and shoulder belt...." be provided at each seating position of any new passenger cars. These belt systems which are provided by the manufacturer, however, are not so effective for the protection of infants or small children as are the specially designed child restraints. Although there are some excellent restraint systems being marketed which will protect infants or small children, they must be specially purchased --- and are expensive. This had led to charges by some pediatricians and parents that the Standard is discriminatory to children and infants, and an added financial burden is one which the parents are unable or unwilling to assume. Therefore, the children of such parents go unprotected.

Pediatricians and concerned parents in Michigan have found one solution to the problem, a solution which is readily gaining acceptance in many other areas of the country. Enlisting the support and cooperation of the Jaycees, parents in the State of Michigan have established a recycling procedure for infant restraint systems which allows parents access to acceptable child restraint systems for a specified period of time and at a reasonable cost. [10]

The project is simple and logical in its current form. The Jaycees raise the money to purchase an initial supply of infant seats, making certain that the seats meet or exceed Federal standards. The seats are then made available to the public on a rental basis for a specified period of time (nine months in Michigan). The initial deposit is twice the total rental fee for the nine month period, with half being refunded to the parents when the seat is returned if no unreasonable wear is evident. An additional charge is made for each extra month the seat is used, and a penalty is charged if there is more than reasonable wear or damage to the seat. The program is publicized through the local newspapers and through prenatal courses. The question of liability, in case of product failure, is handled through the use of a signed agreement, a copy of which is included at the end of this chapter.

In order to implement such a program, the following steps should be included:

3a. Contact the State Jaycee organization to determine if such a program currently exists in the State.

3b. If a program presently exists through the Jaycees, inquiries should be made to determine if the program can be included as a part of a coordinated safety belt usage encouragement campaign. If no coordinated program exists, OGHSR can provide the statistical information which can be used in showing the need for the implementation of a program.

3c. If no program exists in the Jaycee organization, determination should be made of possible interest in generating a program. If no such interest can be generated, the

possibility of involving other civic organizations with a service orientation should be explored.

3d. Once an organization has been identified as interested in pursuing such a program, make certain that information is obtained from the national Jaycee organization to allow the speedy implementation of the program.

3e. Determine whether the program will be limited to infant restraint systems or will include both infant and child restraint systems.

3f. Explore possibilities for funding to purchase an initial supply of restraint systems. This may be accomplished in several ways: funds may be raised through special projects sponsored by the service organization; business manufacturing and distributing infant and child restraint systems may be willing to make them available at a discount price; and local businesses may be willing to donate funds for purchasing restraint systems. Another possibility is funding through OGHSR to a local department such as health or enforcement.

3g. The Attorney General's office in each State should be contacted to examine the entire question of liability. Each State differs in its liability laws, and careful scrutiny of those laws will provide a certainty that the program will not place the responsibility for any possible product failure on the local service organization and its officers.

3h. The Office of the Governor's Highway Safety Representative or the Executive Committee of a coordinated safety belt campaign may be able to provide help in purchasing brochures and funding some of the other expenses associated with the program. Expert advice and skill may be provided from these sources for other aspects of the program.

4. Legislative Options - U.S. society, in recent years, has assumed an ever increasing responsibility for those citizens who, by reason of age, infirmity, or financial condition, are not able to provide for their own welfare. In accordance with this philosophy, there have been a number of laws and regulations promulgated to protect the health and well being of children until they reach the legal age of maturity. While parents retain the primary responsibility for their children's welfare, there are laws which guarantee the right to at least eight years of education, provide for necessary innoculations and physical examinations and provide certain types of medical care. In addition, society provides protection from brutalization by parents and others and from unfair labor practices as well as prohibiting the sale of certain products such as tobacco, alcohol, firearms and drugs to minors.

In the event that parents fail in their responsibility to meet the minimum requirements of society in providing for their children, legal provisions have been made to provide for sanctions against the offending individuals up to and including the removal of children from their home environment. Thus, there is some precedent for the interest of society in the welfare of children. There has been little effort, however, except by a very small number of individuals in the safety community, to call attention to or take the steps necessary to prevent the major cause of death to young children.

With the ever increasing amount of statistical and research data that is currently being made available concerning the importance of safety belts and restraint systems, the States have an excellent opportunity to take an active role in decreasing the high death rate of infants and children by enacting laws which would require [11] that infants and small children be restrained in Federally approved child restraint systems while riding in an automobile. Such laws would, in effect, provide a protection for those unable to protect themselves, and would provide a means for decreasing the death rate of this age group.

The implementation of required child restraint utilization legislation depends on the cooperation of a number of agencies and private interest groups. The coordination of such groups is simplified greatly where a formalized cooperative safety belt utilization encouragement program, such as has been reviewed and detailed in other chapters of this manual, is already in existence. In such cases most of the following organizations will have representatives on the Executive Committee or the Coordinating Council and the contact will be greatly simplified. For States in which there is no coordinated campaign, the following contacts and actions would constitute a workable basis from which to approach the passage of such legislation.

4a. The appointment of an individual at the State level to coordinate the contacts with civic, church, medical, legal and legislative groups and interests, as well as private citizens. This is necessary to build a base of support for the legislation. (This coordinative action would be performed under the auspices of the Executive Committee of the safety belt campaign, where such exists).

4b. Contact the medical community through the State medical society, medical schools, State Board of Health, and physicians associations to enlist the support of individual physicians.

*4c. Request assistance from the Office of the Attorney General in drafting a bill which would be acceptable and constitutional.

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*A copy of such a bill, enacted in Tennessee, is included at the end of this Chapter for information and assistance. Tennessee officials may provide further information to interested parties.

4d. Contact the law enforcement officials at the State, county, and community level to enlist their active support of the proposed legislation.

4e. Request assistance from OGHSR in compiling State and local data with regard to accidents in which restraint systems helped or could have helped protect children who were involved.

4f. Provide background information to news media on the importance of child restraints and the impact of the proposed legislation (See Chapter 12).

4g. Circulate information on approved child restraint systems through available channels. Such information may be obtained from several sources including OGHSR, the National Highway Traffic Safety Administration, or Physicians for Automotive Safety. Information as to where such restraint systems may be purchased locally can be obtained by surveying local businesses (dealers, discount stores, specialty shops, etc.). The survey can be conducted through OGHSR.

4h. Select a legislator to introduce the bill and seek influential and appropriate co-sponsors.

4i. Encourage letter writing campaigns when the bill is to be considered. These letters can and should be influenced by parent's organizations, PTA's, health care institutions and insurance groups. The letter writing effort will also be assisted by the formulation of "model" letters and the publication of the names and addresses of individual legislators, along with their geographical areas of representation.

4j. Consider coordinating the legislative effort with the establishment of local programs for infant seat and child restraint system recycling, such as described earlier in this chapter. The existence of such programs may help overcome objections to the legislation based on costs to the consumers.

4k. Following the passage of such legislation, evaluations should be made of the law's impact using the State's statistics over a period of time. This should provide an excellent mechanism for feedback to the legislators and reinforcement of the need for such legislation on a wider scale.

5. Other Supportive Programs - Other measures to increase awareness of infant and child restraint usage involve gaining the support of various governmental agencies. For example, the Division of Social Services could give support to restraint usage by requiring day care centers which are licensed by their agency to use restraint systems at all times when children are being transported under day care center auspices. One further extension of the program would be to provide child restraints to children in welfare families. The

expense involved in providing these restraints could easily be justified to the taxpayers on the basis of the injury reductions, which in the long run, would save the taxpayers more money. The Social Services Department could recycle their supply of restraint systems, making them available only as long as needed.

Another possibility is to explore whether the Internal Revenue Service (IRS) could make an allowance for families to deduct their expenses for infant and child restraints on their Federal or State income tax returns. Presently, the IRS allows deductions for safety goggles or similar safety equipment which are used primarily to prevent injury at the work place. Medical costs associated with preventive care, e.g., annual physical examinations, may be deducted within IRS guidelines. The primary purpose of child restraints could be seen as complying with existing IRS policies and at the same time would encourage wider usage of infant and child restraints.

SUMMARY

The importance of the health and safety of the individual citizens in each State and community is of primary importance to the continued growth and prosperity of the United States as a nation. This is especially true of the nation's children, who are without a doubt the greatest natural resource available. State Boards of Health and Physicians can play a unique role in promoting the health of children through the increased use of child restraints. Because any efforts to increase such usage must be accompanied by greater availability of restraint systems, the recycling program outlined above should be considered in concert with any major child restraint promotion, legislated or otherwise.

EXAMPLE OF A RENTAL AGREEMENT FORM

(The inclusion of this form is for illustrative purposes only and does not imply NHTSA's endorsement of this particular version.)

DATE _____

COLDWATER JAYCEE AUXILIARY
CAR SEAT RENTAL AGREEMENT

I HEREBY AGREE TO LEASE THE (name of restraint system) FOR A PERIOD OF NOT EXCEEDING NINE MONTHS FOR A DEPOSIT OF TWELVE DOLLARS. If the seat is returned on time in good condition SIX OF THE TWELVE DOLLARS WILL BE REFUNDED. If the seat is in poor condition additional funds will be withheld. A late charge of ONE DOLLAR per month will be deducted from the refund for delinquent seats.

It is expressly understood and agreed by the lessee that the rental service provided by the Jaycee Auxiliary is done as a public service in the interests of safety and that the Coldwater Jaycees and the Jaycee Auxiliary are not dealers in this type of goods, and the Coldwater Jaycees and the Jaycee Auxiliary makes no warranty express or implied as to the fitness of said seat.

The undersigned further agrees to forever refrain from instituting, pressing or in any way aid in any claim, demand, action or cause of action against the Coldwater Jaycees or Jaycee Auxiliary or any member thereof, for damages, costs, loss of services, expenses or compensation for on account of, or in any growing out of, or which hereafter may grow out of the use of said (name of restraint system) by lessee.

This agreement is binding upon any heirs, successors or assigns.

SIGNATURE _____

ADDRESS _____

_____

PHONE _____

EXPIRATION DATE _____

TENNESSEE CHILD PASSENGER PROTECTION ACT OF 1976

Prefiled for introduction 3/9/77

HOUSE BILL NO. 300

by

Bragg - Murphy (Davidson)

AN ACT to amend Tennessee Code Annotated, section 59-930, requiring that children under the age of four (4) years use passenger restraint systems.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. Tennessee Code Annotated, section 59-930, is amended by inserting after the first paragraph of such section and before the second paragraph, the following additional paragraph:

Every parent or legal custodian of a child under the age of four (4) years residing in this state shall be responsible, when transporting such child in a motor vehicle operated on the roadways, streets or highways of this state, for providing for the protection of such child and properly using a child passenger restraint system meeting federal motor vehicle safety standards. Provided that in no event shall failure to wear a child passenger restraint system be considered as contributory negligence, nor shall such failure to wear said child passenger restraint system be considered in mitigation of damages on the trial of any civil action.

SECTION 2. This act shall take effect on January 1, 1978, the public welfare requiring it.

ON THE 7 DAY OF APRIL, 1977, THE (HOUSE) SENATE ADOPTED THE FOLLOWING AMENDMENT:

AMENDMENT NO. 1

Signature of Sponsor

AMEND (Senate / House) BILL No. ____ No. 300 by

deleting the first sentence in section (1) and substituting in lieu thereof the following:

Every parent or legal guardian of a child under the age of four (4) years residing in this state shall be responsible, when transporting his child in a motor vehicle operated on the roadways, streets or highways of this state, for providing for the protection of his child and properly using a child passenger restraint system meeting federal motor vehicle safety standards.

adopted
4/7/77
Wheel

PUBLISHED BY THE TENNESSEE LEGISLATIVE COUNCIL STAFF FOR MEMBERS OF THE TENNESSEE GENERAL ASSEMBLY

APRIL 7, 1977

PLEASE ATTACH THIS TO YOUR COPY OF H BILL 300 (S B 382)

ON THE 7 DAY OF APRIL, 1977, THE ~~HOUSE~~ SENATE ADOPTED THE FOLLOWING AMENDMENT:

AMENDMENT NO. 2

Roscoe Dixon
Signature of Sponsor

AMEND Senate / House BILL No. 382 / No. 300 by

inserting after the words "child passenger restraint system meeting federal motor vehicle safety standards" in the first sentence of the amendatory language of Section 1, the following:

"or assuring that such child is held in the arms of an older person riding as a passenger in the motor vehicle"

Adopted
4-7-77
Effd

PUBLISHED BY THE TENNESSEE LEGISLATIVE COUNCIL STAFF FOR MEMBERS OF THE TENNESSEE GENERAL ASSEMBLY

APRIL 7, 1977

13

PLEASE ATTACH THIS TO YOUR COPY OF H BILL 300 S BILL 382.

ON THE 7 DAY OF APRIL, 1977, THE (HOUSE) SENATE ADOPTED THE FOLLOWING AMENDMENT:

AMENDMENT NO. 3

Reese Pickering
Signature of Sponsor

AMEND (Senate / House) BILL No. 382 / No. 300 by

inserting after the first sentence of the amendatory language of Section 1 the following new sentences:

Provided that the term "motor vehicle" as used in this paragraph shall not apply to recreational vehicles of the truck or van type. Provided further that the term "motor vehicle" as used in this paragraph shall not apply to trucks having a tonnage rating of one ton or more."

Adopted
4-7-77
CLW

PUBLISHED BY THE TENNESSEE LEGISLATIVE COUNCIL STAFF FOR MEMBERS OF THE TENNESSEE GENERAL ASSEMBLY

APRIL 7, 1977

14

PLEASE ATTACH THIS TO YOUR COPY OF H BILL 300 (S 382)

ON THE 11 DAY OF APRIL, 1977 THE ~~HOUSE~~ SENATE ADOPTED THE FOLLOWING AMENDMENT:

COMMITTEE AMENDMENT NO. 1

Signature of Sponsor

AMEND ~~Senate~~ BILL No. 382 No. _____ by

placing the letter and symbols (b) before the amendatory language in Section 1 of the bill.

AND FURTHER AMEND by redesignating the present Section 2 to be Section 3 and adding a new Section 2 as follows:

SECTION 2. Tennessee Code Annotated, Section 59-930, is further amended by designating the first paragraph of the section to be subsection (a) and by deleting the period at the end of the last paragraph of the section and adding the following:

of subsection (a) of this section and not less than two dollars ($2.00) nor more than ten dollars ($10.00) for each violation of subsection (b) of this section.

adopted 4-11-77

PUBLISHED BY THE TENNESSEE LEGISLATIVE COUNCIL STAFF FOR MEMBERS OF THE TENNESSEE GENERAL ASSEMBLY

APRIL 11, 1977

PLEASE ATTACH THIS TO YOUR COPY OF H BILL 700 (S B 772)

ON THE 11 DAY OF April, 1977, THE ~~HOUSE~~ SENATE ADOPTED THE FOLLOWING AMENDMENT:

AMENDMENT NO. 2

Ray Bennett
Signature of Sponsor

AMEND Senate ~~House~~ BILL No. 382 by No.

inserting in the fourth line of the amendatory language in Section 1 between the word "vehicle" and the word "operated" the words "owned by that parent or guardian".

adopted 4-11-77

PUBLISHED BY THE TENNESSEE LEGISLATIVE COUNCIL STAFF FOR MEMBERS OF THE TENNESSEE GENERAL ASSEMBLY

April 11, 1977

PLEASE ATTACH THIS TO YOUR COPY OF H BILL 700 (S B 382)

ON THE 11 DAY OF APRIL, 1977, THE HOUSE SENATE ADOPTED THE FOLLOWING AMENDMENT:

AMENDMENT NO. 1

Signature of Sponsor

AMEND Senate House BILL No. 382 No. 390 by

Section 1 is amended by striking the words, "considered in mitigation of damages on", and substituting in lieu thereof the words, "admissable as evidence in".

adopted 4-11-77

PUBLISHED BY THE TENNESSEE LEGISLATIVE COUNCIL STAFF FOR MEMBERS OF THE TENNESSEE GENERAL ASSEMBLY

APRIL 11, 1977

PLEASE ATTACH THIS TO YOUR COPY OF H BILL 390 (S B 382)

Chapter 8

PERIODIC MOTOR VEHICLE INSPECTION

The National Highway Traffic Safety Administration (NHTSA) Highway Safety Program Standard Number 1 (issued on June 21, 1967) specifies that each State have its own periodic motor vehicle inspection (PMVI) program or an equivalent inspection program approved by the Secretary of Transportation. Of course, periodic motor vehicle inspection programs did not originate with the Federal government. Twenty-one States and the District of Columbia had such programs by the end of 1966. An additional 7 States and Puerto Rico have enacted PMVI statutes subsequently, while a number of States have other versions of motor vehicle inspection programs. The fact that so many States have seen fit to establish motor vehicle inspection programs speaks to the importance attributed to vehicle condition by those State legislators responsible for the enactment of motor vehicle inspection statutes.

The purpose of a PMVI program is to ensure that every motor vehicle operated on public roads is properly equipped and is kept in good working condition. By ensuring the proper working condition of vehicles on the roads through a PMVI program, a reduction should occur in accidents which are primarily cause by or contributed to by mechanical breakdowns or vehicle defects.

A PMVI program might also reduce the severity of some crashes, especially those which are initially caused by non-vehicle factors. For example, a driver may be in a rearend crash because of following too closely and a failure to realize his brakes were not working properly. Even with proper brakes, the crash might not have been avoided completely, due to following too closely. However, the driver may have sustained less severe injury and vehicle damage if the brakes had been working properly and the vehicle was slowed down sufficiently before crashing into the car in front.

Among those jurisdictions which have PMVI, most require inspections once a year. The most commonly inspected items include brakes, exhaust system, windshield wipers, turn signals, horn, headlights, rear reflectors, tires, steering, tail lights, clearance lamps, rear and side windows, stop lights, windshield, and mirrors. Items less commonly inspected include electrical switches and wiring, fuel tank, safety belts and transmission. Nevertheless, proper maintenance of these items may have the potential benefit of reducing crashes or lessening injuries to the driver because they are either related to safe driving of the vehicle (as in electrical switches and wiring) or to protecting the driver during the crash (as in safety belts). Therefore, it would seem that more States should encourage periodic inspection of these items as well.

Safety belts have been shown time and again to reduce injuries arising from highway crashes, and these injury reductions would be much greater if more drivers used these devices. The big difference in injuries received between belt users and non-users remains even after controlling for type of crash, road condition, speed prior to impact, etc. Discouragingly, even with the three-point retractor belt system, the belt usage rate rarely exceeds 30 percent. To what extent can a motor vehicle inspection program help increase belt usage? This is the main issue addressed in the rest of this chapter. [1]

The PMVI program could encourage safety belt usage by including safety belts in the list of items to be routinely inspected. States vary in what items may be covered on the inspection, and in some States legislation is required to authorize what may be inspected. In these latter States, short of legislation, it may be possible to incorporate a courtesy safety belt inspection into existing PMVI programs. A courtesy or discretionary inspection may not require legislation. [2]

If and when a State is considering legislation concerning safety belt inspection, the two pieces of legislation that are probably the most useful are: [3]

1. A Bill Prohibiting the Operation of a Vehicle Without the Existing Safety Belts Being in Proper Working Condition - Such legislation could, if necessary, be implemented gradually, beginning with non-personal vehicles such as rental cars, government or company cars, taxis and limousines. Furthermore, car dealers, car salesmen, and automobile mechanics would be discouraged from tampering with customers' restraint systems. In addition, vehicles in which belts are not working properly could be prohibited from resale until the belt systems were restored to usable condition in order to further discourage owners from tampering with them. By requiring belts to be available and in working order, those who wish to use belts would not be deprived of their right to do so. [4]

2. A Bill Requiring Inspectors to Check All Restraint Systems Including Warning Devices Installed by the Manufacturer - To insure that belts are available and in working order, inspectors would be required to pull the belts out, check the warning system, test their locking mechanisms and look for wear and tear. If the belts were found defective, the vehicle would be rejected. [5]

3. Other Supportive Programs - It would be much easier to implement the safety belt inspection program with legislation than without legislation. However, even without legislation, the program could be implemented as a demonstration project first, say, in certain counties or for cars in a certain age range. If the demonstration program proved successful (i.e., sufficiently many defective belt systems were detected), legislation and full scale implementation could follow.

The success of a safety belt inspection program would also depend on several supportive measures. First, belt effectiveness information could be provided to inspectors during their training to convince them about the importance of belts in saving lives.

Second, since safety belts may need replacement after several years when a belt system is found to be defective, the vehicle inspectors could encourage that belt replacement be considered. Third, during regular visits to the inspection stations, the PMVI program monitors for the State could check to see if the inspectors are actually inspecting the safety belts properly. Fourth, local merchants could be encouraged to incorporate information on belt defects into their advertising campaign. Last, insurance companies should be encouraged to consider belt replacement expenses as part of the property damage reimbursements to their insured drivers who were involved in crashes.

SUMMARY

The legislation proposed above, coupled with various supportive measures, could be used as guidelines by the State PMVI program administrator in initiating a safety belt inspection program. It would also be extremely helpful to check with those States which have already implemented a safety belt inspection program. Currently, 14 jurisdictions inspect safety belts during PMVI. At least three states have statutory authority to do so whereas the other jurisdictions conduct their programs under departmental administrative authority. The remaining PMVI jurisdictions should consider whether it would be more feasible in their situations to pursue administrative measures or legislation to bring about inspection of restraint systems. Whatever it takes should be undertaken!

Chapter 9

DRIVER LICENSING

A driver license in American society is much more than a simple piece of paper allowing a person to operate a motor vehicle on the streets and highways. This small piece of paper is, in reality, a passport to jobs, medical attention, recreation, and even, in many cases, the food and clothing to sustain the individual and that individual's family unit.

In addition to being a vital document in what it makes possible for an individual to accomplish in society, it is a license to engage in potentially the most dangerous activity in which the average person will be involved...driving.

For this reason, the major function of driver licensing programs is to ensure that those licensed to drive have demonstrated adequate capabilities, skills, and knowledge so that they may be expected to perform in a safe and efficient manner on the highway and thereby reduce the number of crashes while increasing the efficiency of traffic flow. To accomplish this end, a specific standard has been established by the U.S. Department of Transportation that recommends that each State establish driver licensing programs that will ensure that only persons who are physically and mentally qualified will be licensed to drive. At the same time, the programs should minimize the needless removal of licensure to drive and ensure that: (1) the license shows the type of vehicles that the driver is authorized to operate, (2) each driver has presented acceptable evidence of the date and place of birth when applying for original license, and (3) each driver has passed certain examinations.

For original licensure, the driver should demonstrate (a) his ability to operate the type of vehicles for which license has been applied; (b) an ability to read and understand traffic signs and symbols; (c) knowledge of laws relating to traffic, safe driving procedures, vehicle and highway features, handling emergency procedures, and other driver responsibilities; and (d) visual acuity as established by the State. Renewal examination should occur at least every four years and include at least visual acuity and knowledge testing. [1]

States should also keep up-to-date driver records readily available and have an improvement program in effect, whereby problem drivers are identified and appropriate actions taken to reduce their involvement in crashes and/or violations. A system for medical evaluation of drivers with special problems should also be available, with a medical advisory board to provide advice and consultation.

Thus the ultimate goal in driver licensing is to increase the safety and efficiency with which driver operate and hence reduce death and injury. It has been clearly established that the use of safety belts is associated with decreased death and injury on the highway. There is also some less conclusive evidence that the use of safety belts may increase the efficiency of traffic flow, in that driver must maintain better posture and consequently become less fatigued. Furthermore, the possibility of being thrown from the behind-the-wheel position because of a sudden stop or jolt may be reduced if the driver is belted. Belted occupants are certainly less likely to interfere with driver performance either deliberately or otherwise. Consequently, the mandate of driver licensing programs to bring about a decrease in injury and death and an increase in efficiency of traffic flow could be pursued through effecting an increase in safety belt usage. [2]

The purpose of this chapter then is to outline, in some detail, a variety of approaches and programs which can be used by driver licensing authorities to increase driver safety and performance through increasing safety belt usage. The approaches vary in complexity, required personnel and effort, but the majority can be accomplished without legislation. The following approaches can be separated into two areas, those that deal with driver knowledge and those concerned with driver behavior.

1. Driver Knowledge - Having reviewed the purposes and functions of driver licensing in the preceding paragraphs, it remains to outline ways in which the licensing program can be utilized to encourage safety belt usage. These include:

1a. Driver License Examiner Education - It is most important that safety belt related information and educational materials be included in the training of driver license examiners. This increase in examiner knowledge and appreciation of the contribution belts can make is vital because ultimately the success of driver licensing related programs rests upon the commitment of the involved examiners. It is only to the extent that they are convinced that they will make use of available opportunities to instruct license applicants. [3]

The education of examiners may be included during initial training or during regular in-service training. For veteran examiners, special safety belt workshops may be established through the Executive Committee of a coordinated campaign, or through the State authorities responsible for driver licensing. These workshops and training courses can make use of crash and injury data from the State, and can even make available information compiled and classified by county or town showing the number of deaths and injuries sustained by belted and

unbelted occupants. Such other related information as is available (see Chapter 12) should be included, such as an estimate of deaths which might not have occurred had the individuals worn belts. In this manner, examiners can have localized data to use in informing driver license applicants of safety belt importance.

1b. Incorporation of Safety Belt Information into Knowledge Testing - A logical extension of the education of driver license examiners is to ensure that the driving public is aware of the importance of safety belt usage through the inclusion of safety belt related questions on the knowledge examination for driver license. While some States establish by statute what may be included in driver knowledge examinations, other States have wide discretion in regard to what their tests may cover. Where discretion allows, driver knowledge tests can include questions on safety belt effectiveness. Even in States where tests must be limited to traffic laws, questions could be included covering the required availability of safety belts in much the same manner as questions concerning other required equipment are included. [4]

1c. Incorporation of Safety Belt Information Into Driver Handbooks - The inclusion of information concerning safety belt effectiveness and importance in the knowledge examination would, of course, necessitate the addition of such information to the driver handbook which is used by the public to prepare for driving examinations. Most States require, officially or unofficially, that every question on the driver knowledge examination be addressed in the driver handbook. Thus information on safety belt effectiveness must be in the handbook if questions are asked about it. Even in those States where questions must be limited to traffic laws, however, the driver handbook can usually cover other relevant topics as well. The driver handbook is, therefore an excellent and rather inexpensive vehicle for informing the driving public of the benefits of belt usage. No legislative changes should be necessary to institute such a program.

1d. Incorporation of Safety Belt Information Into Driver Improvement Program - In most States there is a driver improvement program that is closely affiliated with the driver licensing authority. These programs are addressed in Chapter 10 in conjunction with Driver and Traffic Safety Education, and reference should be made to that chapter for further discussion of this area.

2. Driver Behavior - In addition to the areas outlined above, the driver licensing function can also demand specific action from license applicants during examination and, through legislation, can

require protection for novice drivers and their passengers. Safety belt emphasis may be provided by:

2a. Requiring Belt Usage During Road and Other Vehicle Tests - This requirement, in addition to providing a safe environment in which the applicant may take the test, also provides information to the examiner as to whether the applicant knows how to use the restraint system properly and impresses upon the applicant the importance which the State places on regular safety belt usage. [5]

When an applicant is ready for road testing and vehicle handling examination, the examiner (in most States) checks the vehicle for certain safety features, e.g. visibility of the registration plate, foot brakes in working order, tires in acceptable condition, inspection sticker up to date, and lights, as may be required. It would be simple to include safety belts on such an inspection, and doing so would provide one more avenue for stressing the importance of belts. The license applicant may then be required to make use of available restraint systems during the road test. Many States require that motorcyclists wear helmets during performance testing and the required use of available safety belts could be seen as a logical extension of such a policy. There is some question as to whether examiners should also use them during the road test, in that some examiners maintain that freedom of movement is necessary in the rare instances when the applicant's foot "freezes" on the accelerator or other problems arise during the test.

2b. Require Belt Usage For a Stipulated Period of Time As A Condition of Licensing For Beginning Drivers - Most beginning drivers in our society are young people in their mid-to-late teens---a segment of the driving population that is characterized by their over involvement in crashes. In order to protect these novice drivers and their passengers and decrease the injury and death occurring as a result of their inexperience, one possibility is a law requiring belt usage by all beginning drivers and their passengers. [6]

Taking this action would not only provide a mechanism for reducing death and injury, but also increase the rate of safety belt usage and increase the probability of the development of "the safety belt habit" among beginning drivers.

There is ample evidence that young inexperienced drivers are worthy of special consideration from the standpoint of licensing. Empirical evidence shows the

young driver's (and especially the young male driver's) higher risk of crash with a gradual decrease in crash experience associated with increasing age. This decrease is consistent with the learning curve found in the initial stages of mastery of any complex skill. It is a fact that young drivers are going to have more crashes.. ..as a group. Thus, increased belt usage by this group should have greater payoff than for any other driver age group. [7] [8]

The linking of belt usage to licensing of the beginning driver may have merit because it is a relatively inexpensive way to promote belt usage. Furthermore, it is likely to find support from a wide variety of sources. Young people are usually so eager to "get their wheels" that they will abide by most reasonable requirements in order to do so. Parents should be receptive to such a requirement, and indeed should be relieved to be assured that their sons and daughters are thus protected. If all occupants are required to buckle up when a young person is driving, parents may also be relieved of potential liability arising from injuries to other occupants if the young driver is involved in a crash. Enforcement personnel should be receptive to the proposal in that it is consistent with their commitment to the promotion of safer driving conditions. Their enforcement of such a law should do more to reduce death and injury than any other activity in which they engage. Insurance companies should welcome such a program because of its potential for decreasing the number and dollar amount of claims. Likewise, there should be a decrease in the demand placed on the court system arising out of litigation based on injury cases. [9] [10]

APPROPRIATE LEGISLATION

With regard to the above proposal, it could be implemented by modifying provisional licensee programs, where they exist, to include non-usage of belts as grounds for license suspension or other sanctions deemed appropriate such as demerits or points on the driver record. Where such provisional licensee programs do not exist, careful examination must be made of possible problems arising if such requirements are to be imposed upon drivers above the legal age of maturity, i.e., 18. If the law applies to all beginning drivers, regardless of age, it may be more defensible from a constitutional standpoint. If it applies only to youthful drivers, however, it may be more acceptable to the public in general. [11]

Another point that should be addressed in any legislative action is whether violation of the safety belt usage provision should be handled through the courts or handled administratively through the licensing agency. There may be advantages to the latter approach. Many States already have implied consent laws whereby acceptance of a license implies that one will agree to take a breath test if arrested for drunk driving. Refusal to submit to testing is an offense that is punishable independent of the outcome of the drunk driving charge in court. The arresting officer completes an affidavit that is forwarded to the licensing agency for action. While the defendent has a right to a hearing, the entire matter is handled within the licensing agency and does not involve the courts. Each State considering implementing a required belt use law for beginning drivers should determine which approach is more suitable to its needs and circumstances. [12]

If a State should consider such legislation worth pursuing, the following steps should be taken prior to passage of legislation: [13]

1. Examine the existing State laws convering licensing of beginning drivers to determine the extent to which they allow special monitoring and special sanctions applicable to beginning drivers. Determine the type of legislation needed to require belt usage by beginning drivers and the occupants in their vehicle with special attention to whether the law should apply to all beginning drivers or only to young beginning drivers. If it applies to all beginning drivers, it will be necessary to establish criteria for defining and identifying beginning drivers.

2. Collect or develop information concerning current belt usage rates by young drivers and their passengers in the State and determine the life saving potential of the proposed legislation.

3. Designate a coordinator of overall activities who could establish an advisory committee composed of such persons as key legislators, State officials, representatives of the private sector, and parent groups. (In a coordinated campaign, this can be done by the Key Coordinator.)

4. Determine what kind of sanctions should operate. License suspension has the advantage of equity in that the affluence of the violator becomes a less significant factor. However, suspension has the disadvantage of requiring considerable paper work and effort. Demerits or points against the driver record offer another possibility. Perhaps a first offense should result in only an official warning with no sanctions imposed until the second offense within a given time period.

5. Draft a model bill localized to State needs. Ideally the bill would be for a specified period of time with a provision for evaluation. Not only will such a provision increase the likelihood

of passage, but also it will provide clear feed back to the legislators that they can then use in determining whether the bill should be extended.

6. Contact all State legislators apprising them of the need for such legislation and inviting their suggestions.

7. Through the auspices of civic groups, PTA's, etc. develop a letter writing campaign to inform legislators of support for the proposed bill.

8. Provide legislators with carefully prepared "Fact Sheets" based on in-State data and showing the anticipated impact of the law. Such information may be used by legislators in arriving at their decision and in responding to inquiries from constituents.

9. Coordinate the campaign to ensure the bill's passage.

Following the successful passage of the law: [14]

1. Make necessary changes in record keeping systems.

2. Make certain that driver license examiners inform young drivers or beginning drivers of their responsibilities under the new law and of the potential consequences of non-observance.

3. Train the State and municipal police in appropriate methods of enforcement.

4. Launch a Statewide media campaign to ensure that all affected persons will be informed of the new legislation and the provisions for enforcement.

5. Evaluate the impact of the law upon injuries and death rates among beginning drivers and their passengers.

This same basic approach could also be applied to "permit drivers", those beginning drivers who have not yet obtained a full-fledged license. Since in many States parents or guardians sign for the permit driver, it would be possible to involve them in the commitment to belt usage.

SUMMARY

The driver licensing function can play an essential part in the encouragement of safety belt usage by the driving population. Through the continuing education of licensing examiners, the inclusion of

safety belt information in the driver handbook, driver license testing, and the possible passage of licensing related legislation, the personnel involved in the licensing of drivers in each State have the potential to provide important support in the task of increasing the overall safety of the driving environment.

Chapter 10

DRIVER AND TRAFFIC SAFETY EDUCATION

Driver and traffic safety education is an integral component of State highway safety programs. While in some States driver education consists solely of the traditional driver education programs for young beginning drivers (whether in public or commercial schools), in others the area includes such programs as traffic safety education from kindergarten through 12th grade (K-12), courses for experienced motor vehicle operators provided by educational or other institutions, and driver improvement programs for drivers who have repeated violations and crashes. These different types of programs should be examined in relation to their objectives.

The traditional driver education program is designed to train beginning drivers, usually those in their middle teens, to drive skillfully and safely under various traffic environmental conditions. Traffic safety education programs involving grades K-12 are primarily designed to provide students with the knowledge, skills, attitudes and behavioral habits to deal effectively with the potentially hazardous traffic environment. Courses for the experienced motor vehicle operator are designed to upgrade skill and knowledge so as to improve their overall performance. Finally, driver improvement programs are basically for the purpose of re-educating negligent drivers to reduce their involvement in crashes and violations. The ultimate objective of all of these programs, is, of course, to reduce the frequency and severity of traffic collisions. Since the effectiveness of safety belts in reducing injury and death has been well established, through dissemination of information on safety belt effectiveness and encouraging students and others to form safety belt usage habits, significant progress can be made toward the primary goal of driver and traffic safety education. [1]

The National Highway Safety Program Standard on Driver Education established in 1967 by the U.S. Department of Transportation states that driver education programs should provide each eligible student with practice and instruction in "the vehicle, highway, and community features that protect him and his passengers in crashes". The availability of safety belts and knowledge of and experience in their proper usage certainly fall into the category of vehicle features that protect the driver and passengers in crashes. [2]

Thus the authority is clearly established for including instruction on safety belts in driver education. Even more important than this authority, however, is the fact that the K-12 type program and beginning driver programs may provide the community with the best opportunity for increasing safety belt usage. Young inexperienced drivers and pre-drivers are forming both the habits and behavioral tendencies that will shape their future driving.

Research has shown that an important key to safety belt usage is the development of the habit of buckling the belts each time a driver enters a vehicle*. It is logical to conclude that forming of the safety belt habit is easier at this stage than later in the driver's life when habits must be changed. Thus development of belt use habits in driver education could provide greater pay-off than most public education programs. [3]

There are a number of safety belt usage inducing techniques that can be effectively used in driver education and traffic safety education programs. Some of these techniques are described below.

1. Develop Modules Or Other Materials On Safety Belts To Be Incorporated Into The Total School Curriculum For Grades K-12 - This technique would provide a comprehensive safety belt education program beginning in kindergarten and continuing through the 12th grade. Furthermore, it would teach the importance of belt usage to children as early as possible while they are presumably more receptive and persuade students to use available safety belts and encourage them to urge their families and friends to use them. Finally, it would reduce the probability of injury and death in children and young people for whom traffic crashes represent the greatest threat to life. [4]

States should develop a comprehensive education program on belt usage and effectiveness for use with students from kindergarten through 12th grade. Materials should of course be designed for the different age levels and should ideally include a variety of approaches such as films, discussion materials, and student activities. The instruction may be presented as a separate unit or be incorporated into regularly taught subjects such as reading or health.

Because different teachers are responsible for different subjects at the upper grades, at this level it is almost necessary that information be incorporated into existing courses. For example, social studies could legitimately include information on the costs to society when injuries and death result from crashes. Physics covers information on "g" forces and could include examples of relative "g's" associated with crashes at different speeds for restrained and unrestrained drivers. Government and civics classes could discuss the question of the rights of the individual versus the rights of society using safety belts as an illustration. Material presented in this manner would serve to illustrate the concepts being taught while at the same time conveying important information on safety belts. [5]

At the various grade levels, it is important that students discuss the effectiveness of various approaches to encourage parents, other adults, and peer groups to wear safety belts.

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*Waller P.F., and Barry, P.Z. Seat belts: A comparison of observed and reported use. University of North Carolina, Highway Safety Research Center, May, 1969.

2. Include Information On Safety Belt Effectiveness In The Driver Education Curriculum - In this way information would be provided on how safety belts lessen injury and save lives in automobile crashes. Hopefully, such information would develop a willingness on the part of the student to use safety belts and to persuade other highway users to use safety belts. [6]

School administrators could request driver education teachers to lengthen and intensify their coverage of safety belts. Research studies which have established the effectiveness of the safety belts could be reviewed in class. Films on safety belts could be shown to the students, and lectures and discussions on belt usage could follow. Literature on safety belts could be distributed to the students (see Chapter 12). The students should also be told that more than 25 percent of them will be involved in crashes during the first few years of driving. Because of their elevated risks, they should be encouraged to wear safety belts at all times to reduce the chance of a severe or disabling injury.

3. Require Driver Education Students To Use Safety Belts In Driver Education Vehicles, Both When Driving And Observing - In this way students would gain practice in the proper use of the belts and be encouraged to form the safety belt habit. [7]

At the beginning of the first in-car lesson, the teacher should explain and demonstrate the correct way to wear the lap belt and shoulder harness. The lap belt should be worn low across the pelvic area, and there should be about a one inch slack in the shoulder harness and it should be kept off the neck. Students should be informed that they are required to wear their belts at all times while driving or riding in the driver education vehicle. If there is no law or policy in the State requiring students to use safety belts during driver education, it would be the responsibility of the driver education teachers to encourage belt usage during in-car lessons.

4. Require Driver Education Teachers To Wear Belts During In-Car Instruction - This technique would set a good example for the students, reinforce the safety belt habit by teachers, and increase safety belt usage among members of the school staff.

In States where driver education cars have a control pedal, vehicle sensitive inertia reels and vehicle sensitive belts, the teachers could be requested by school administrators to wear belts during their instruction periods. The teachers would sacrifice little control by wearing their belts in such vehicles. However, if the driver education vehicle is not equipped with vehicle sensitive belts or inertia reels on the shoulder harness, the teacher should be required to wear only lap belts. This would still allow reaching over to control the vehicle for the student if necessary.

5. Install Safety Belts On Driving Simulators For Students - The availability of belts on simulators would allow instructors to demonstrate the proper use of the belts and encourage the safety belt use habit.

School systems having driving simulators should equip each station with safety belts. The teacher can then demonstrate proper belt usage as part of the instruction in the driving simulator laboratory.

6. Request Driver Education Teachers To Wear Belts When Driving Training Vehicles Without Students - The safety belt habit would be reinforced among driver education teachers thus increasing belt usage, and providing a model for students. Furthermore the probability of injury would be reduced in case a collision should occur. [8]

School administrators could require driver education teachers to use safety belts at any time that driver education vehicles are used, since the marked driver education car has a public image, especially for the students and their parents. This may be a difficult program to monitor without a safety belt usage law or an administrative policy unless the driver education teachers themselves are convinced of its value and importance.

7. Obtain The Support And Involvement Of Parents In Encouraging Belt Usage - At the beginning of the driver education course in high school, teachers could send letters and safety belt information to the parents, seeking their support for safety belts. Parents could be asked to supervise the student's practice in the family car and to set good examples for their children by always insisting that safety belts be worn while driving or riding in the family car. In this way the safety belt habit would be strengthened.

8. Require That Available Safety Belts Be Worn By School Employees, Drivers, And Passengers On All School Business And Official School Trips - Such a requirement would emphasize the value of belt usage, provide official sanction of their usage, and decrease the probability of injury to students on official school trips. [9]

School principals and administrators could require that available safety belts be worn by school employees, students, and chaperones on all school business and all official school trips. Although strict enforcement of this rule might be difficult without a safety belt usage law, serious effort to encourage safety belt usage on such trips should increase the overall level of awareness of safety belt effectiveness. One method of enforcing this rule is to assign responsibility to the driver for the safety belt usage of all occupants on official school trips. This could be accomplished by a consent form signed by the driver.

School districts should also investigate the possibility of obtaining lower liability insurance rates in the event such a requirement is implemented.

9. Encourage School Principals And Teachers To Challenge Students To Catch Them Driving Without Wearing Their Safety Belts - This approach could increase safety belt usage among principals and teachers, and involve the students in an activity that may make them more aware of the importance of wearing belts. [10]

The Department of Education could request that school principals and teachers consider agreeing to a challenge by students to catch them driving without safety belts. The principals and teachers in the respective schools could vote on such a program. If the program is agreed upon, an announcement could be made to the student body challenging them to catch the principal or any teacher driving without his or her belts. The "punishment" could be decided mutually among the students and the teachers. This technique, to be successful, would require the cooperation and support of school administrator and faculty. Where student-faculty-administrator support is good, it could be an effective program.

A similar program could also be initiated among the students themselves. Competition could be held among classes or students could be encouraged to catch each other. Again sanctions could be determined by the student body and could include withholding of special privileges, such as priority in the school cafeteria, from those who were caught not wearing their safety belts.

10. Include In Driver Improvement Programs Information On Safety Belt Effectiveness - Although many driver improvement programs are operated through State Departments of Motor Vehicles or in conjunction with the court system, others are operated solely for persons interested in improving their driving even though they have not had any special problems. In either event data on safety belt effectiveness may be the most important information that could be included in such programs. Those who are in driver improvement programs because of their poor driving records constitute a higher than average risk group and consequently stand to benefit more from the usage of safety belts. Those who are in driver improvement programs simply to upgrade their driving skills often come from the more influential segments of society and therefore can bring about changes in the belt usage behavior of others. Thus, providing information on how safety belt usage may reduce injuries and save lives in automobile crashes and persuading driver improvement participants that safety belts should be worn for their protection appears to be an important goal of driver improvement programs.

Most States have within their driver improvement program some provision for personal meetings between official driver improvement specialists and problem drivers. Such meetings may be individual or group. Group programs could provide information on the value of safety belts possibly using such films as, "Where Have All The People Gone". In addition, many of the suggestions recommended for driver education classes could also be used in group driver improvement sessions. If meetings are on an individual basis or through mail contacts, it is possible to provide attractively produced literature describing safety belt effectiveness.

Whether the program is addressed to problem drivers or drivers in general, use should be made of State and local data so as to bring the message home in terms that are more readily understood.

SUMMARY

Driver and traffic safety education has as a major goal the reduction of the frequency and severity of traffic collisions. One of the best ways to accomplish this goal is to communicate solid information on safety belt effectiveness and encourage the safety belt usage habit. This can be achieved by incorporating safety belt information in the total school curriculum for grades K-12, by encouraging belt usage in driver education courses, by soliciting parental support for belt usage, by requiring the use of available restraint systems on official school trips, and by challenging students to "catch" teachers, administrators, or other students who are not using belts so as to increase awareness of the importance attached to belt usage. In addition, information on safety belt effectiveness should be incorporated into programs for upgrading the skills of experienced motor vehicle operators and for improving the overall performance of drivers who have experienced repeated violations and crashes. Traffic collisions are the major cause of death among children and young people, and most driver education effort is aimed at this age group. There is probably no other area in the traffic safety curriculum that is of more importance to this age group than the importance of safety belt usage.

Chapter 11

CODES AND LAWS

All States have a system of codes and laws, and local governments have ordinances whereby they regulate society. Generally our codes and laws are aimed at promoting the overall welfare of society. More specifically, laws are aimed at improving the safety and health of citizens. While every State has a myriad of laws governing the use of our highway system, and while many, if not most, of these laws have been passed out of concern for the safety of the highway users, the most cost effective means of reducing highway injuries and death has not yet been enacted into law... namely an across-the-board required use of safety belts. Short of such a law there are a number of ways in which limited legislation could increase belt usage. Some of these methods are discussed in the other chapters, but they will be included here as well to provide a succinct listing of legislation that could be considered by a State.

It should be underscored that any effort to enact legislation should be preceded by careful and complete laying of the groundwork whereby public appreciation and support are generated for the proposed action. Once there is an indication that public sympathy exists for the legislation, legislators can more readily support the measure without fearing loss of favor with their constituents. More courageous legislators may even be willing to take the lead in publicizing how increased usage of safety belts through proposed legislation will promote the health, welfare, and economy of their constituents and their State.

Once legislation has been proposed, legislators have the right to expect that they will be provided with sound information supporting the legislation they are being asked to support. Such information may be used in responding to inquiries from constituents and to critics of the bill. This kind of information should be an integral part of a Statewide coordinated campaign. In the absence of a State plan, such information could be provided by the Office of the Governor's Highway Safety Representative.

With these concerns in mind, the following methods are offered for consideration.

1. Motor Vehicle Registration - The availability of safety belts can readily be linked to motor vehicle registration, and indeed this is already being done in many States. Some States require that for an automobile to be registered or change title it must have

safety belts installed in specified seating locations. This could be enforced either by self certification or by linking it to the State's safety belt inspection program, if one exists. The application of such a requirement to the sale of used cars could be an effective deterrent to the owner's tampering with belt and warning systems.

2. Periodic Motor Vehicle Inspection - A number of States include safety belts under their motor vehicle inspection program (see Chapter 8). Although most such States do so under administrative authority, some do so under legislative authority. If belts are required for a vehicle to pass inspection, it is essential that the necessary repair services be readily available. If safety belts are required to be available and in good working order for both vehicle registration and vehicle inspection, it should increase the probability of most vehicles having approved safety belt systems available for use. In the absence of any belt use law, including belts under the inspection program can be justified on the grounds that it protects the individual's right to choose to wear a belt if he so wishes. (See Chapter 8 for further discussion of this proposal.)

3. Driver Licensing - Legislation requiring that all (young) beginning drivers be required to use available restraint systems for the first two years (or whatever time period chosen) of driving should provide protection to those most in need of protection. Young beginning drivers experience an inordinately high crash rate. Required belt usage during this period would not only provide them protection but also encourage them to develop the safety belt habit. Although logically such a law should be extended to include all occupants in the vehicle driven by the beginning driver, this possibility would have to be considered in light of its feasibility within each State. (See Chapter 9 for elaboration of this proposal.)

4. Infant and Child Restraint Systems - Required use of restraints for infants and children in automobiles would provide protection for those unable to protect themselves. Tennessee is the first State to have enacted such legislation and can provide helpful information to other States interested in considering this option. Such legislation would require the availability of an adequate supply of approved restraint systems. Likewise programs providing the restraint systems on a low rental or loan basis would enhance the possibility of passing such a law. (See Chapter 7.)

Required use of restraint systems could be extended to all minor children so that those too old for infant and child restraints would be required to use available belts. Legislation providing for such protection is in keeping with the established practice of protecting the health and welfare of children.

Short of requiring actual restraint systems for children, a requirement that they be placed in the back seat would provide some limited protection. If restraint systems are not used, riding in the back seat is safer than riding in the front seat, as shown by an Insurance Institute for Highway Safety (IIHS) study.* (See Chapter 7 for additional information regarding this proposal.)

5. Vehicles for Hire - Almost every confirmed safety belt user has had the experience of getting into a taxi cab only to discover that a miner's light is needed to find a safety belt. Should one be so fortunate as to actually retrieve a belt, it is often dirty and in such condition that one would be most reluctant to have it next to one's clothing. Taxi and limousine fleets are regulated businesses which could be required to have safety belts available and in usable condition for those customers wishing to use them. Such a requirement would in no way infringe on anyone's rights but would merely make it possible for those persons wishing to do so to use the protective devices that have been installed by the manufacturers.

In most States taxi companies are not regulated by the State but rather operate under franchise from a municipal government. Limousine fleets usually operate under franchise from an airport. In both instances the conditions of the franchise are set by the authority issuing the franchise within guidelines established by the State. Although the major thrust of the regulation has been toward the fitness of the driver, there is also some requirement that vehicle safety standards be met. Thus some municipalities require more frequent vehicle inspection for taxi cabs than is required for passenger cars in general. To include a requirement that safety belts installed by the manufacturer be available and in working order would be a logical extension of existing practice.

6. Special Classes of Drivers - When a large vehicle is involved in a crash with a smaller vehicle, the damage and the probability of serious or fatal injury are greater for occupants of the smaller vehicle. It could therefore be argued that it is especially important that operators of large trucks do everything possible to avoid losing control of the vehicle. Because safety belts keep a driver in place when a sudden jolt or minor collision occurs, belts can help to avoid a serious collision.

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*Williams, A. F. and Zador, P. Injuries to children in automobiles in relation to seating location and restraint use. Washington D.C. Insurance Institute for Highway Safety, May, 1976.

The Bureau of Motor Carrier Safety regulations require the use of safety belts by operators of truck and buses engaged in interstate commerce. This requirement could logically be extended to apply to in-state operators as well.

The National Transportation Safety Board has investigated a number of crashes in which the use of safety belts would have made it possible to avert a serious collision. The following describes one such case:

"In February of 1972, a woman was driving a school bus on Lawyer's Road in Fairfax County, Virginia. She was not using a lap belt though one was available. A second driver ran a stop sign and his vehicle hit the school bus on the right side behind the front door. No one on the bus was hurt in this collision but it knocked the driver out of her seat onto the floor. The bus continued driverlessly 150 feet down the road. It went over an embankment, turned onto its side and slid along the ground. All the children and the driver on the bus were injured in the second crash. The National Transportation Safety Board investigated this crash and reported:

> 'Seat belts will make a significant difference in keeping the drivers in their seats during simple collisions, skids, evasive actions and near upsets. Belted to their seats, drivers will thus be in a better position to keep the vehicle under control, to prevent its crashing into other vehicle/s or running off the roadway....This accident is an excellent illustration of this logic'"*.

Some States require belt usage by operators of school buses, while at least one State includes operators of all buses. Because of the critical nature of the task, and because it involves the lives of many young children, school bus operation should include a requirement for safety belt usage.

Ambulances and other emergency vehicles are operated at high rates of speed so that loss of control on the part of the driver is likely to result in serious injury. It would be reasonable to require such operators to make use of available safety belts.

At least one State requires drivers and passengers in driver education vehicles to use available safety belts. Because such vehicles are by definition operated by inexperienced drivers, it may be worthwhile to consider such a requirement. In some States

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*Kearney, E. F. Reasons for and against laws requiring people to use seat belts. Paper presented at the Traffic Conference of the National Safety Council. October 31, 1972.

it may be simpler to address this issue through administrative channels rather than legislative means.

7. Safety Belt Defense - The safety belt defense concerns whether a plaintiff, that is, a driver or a passenger who is injured in an automobile collision,should be penalized for not having used available safety belts at the time of collision. Can the defendant in such a case utilize the non-use of available safety belts as a defense?

Since both State and Federal legislation requires the presence of safety belts in at least some vehicles, it logically follows that questions will be raised as to whether the non-use of available belts constitutes negligence should injuries occur in a crash. If one is injured in a motor vehicle crash when one is not using available safety belts, and if the injury would have been lessened or avoided had the belts been used, to what extent is the injured party guilty of contributory negligence? This is a thorny issue, so much so that the passage of some State laws as well as Federal legislation requiring the installation of belts specifically included a provision either that non-use of belts would not constitute negligence or that the legislation would not affect common law standards of negligence.

According to the doctrine of contributory negligence, if a plaintiff has in any way contributed to his injury, he or she is barred from recovering any damages. This doctrine still prevails in many jurisdictions, but most judges are reluctant to apply it in the case of safety belts. If a drunk driver runs a red light and crashes into a car in which an occupant is seriously injured, in part because of nonusage of available safety belts, should the injured driver be disallowed any compensation? Such a course violates one's basic sense of justice.

There has been some trend toward what is called the doctrine of comparative negligence. According to a recent document this doctrine has been adopted in 28 American jurisdictions and provides for "the responsibility for an accident and liability to be divided among parties according to their respective degrees of fault"*. Theoretically the case for safety belts should fare better under the doctrine of comparative negligence than under the doctrine of contributory negligence. However, the doctrine of comparative negligence requires that two criteria be met: (1) There must be clear

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*Good, E. P. Legal considerations in seat belt use. Paper presented at the Eighth Annual Institute on Motor Vehicle and Traffic Law. University of Colorado, Boulder. August, 1976.

evidence that the injuries sustained are linked to the non-use of belts. Except in rare instances such proof requires expert testimony. (2) The behavior that should have occurred (in this case using safety belts) must be that which would be expected of a reasonable man. Since well below 50 percent of drivers and passengers use available safety belts, it is difficult to convince courts that safety belt usage meets the "reasonable man" criterion. Consequently the safety belt defense has not yet made strong headway under the doctrine of comparative negligence.

According to Good, as of the spring of 1976, 14 States had indicated a willingness in a proper case to allow the safety belt defense. Five States prohibit by statute the safety belt defense, 11 States have barred the defense through judicial decision, and 20 States have not taken a position on the issue. Nevertheless there is growing attention to this problem and there will be considerable debate before the issue is settled.

8. Required Safety Belt Use - This manual is concerned with a variety of ways to encourage increased use of safety belts preferably through already existing State functions. However, it would be remiss not to include the most effective means of all for increasing safety belt usage, namely, a safety belt usage law such as those passed in other countries. At this writing Australia, Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Israel, Luxembourg, Netherlands, New Zealand, Norway, the Soviet Union, Spain, Sweden, Switzerland, West Germany, Yugoslavia, the Canadian provinces of Ontario and Quebec, and Puerto Rico have laws requiring the use of available safety belts. Legal sanctions vary from none up to about $100 fine, although in actual practice when fines are levied they run about $10 to $20. (In this country there is no reason why belt usage laws could not be tied to existing demerit or point systems.) The countries vary in details of their laws, but all provide for some kind of exemptions such as persons with medical problems that would make belt usage difficult, persons engaged in low speed multi-stop driving such as delivery men, taxi drivers,and children too small to use adult safety belts.

The National Committee on Uniform Traffic Laws and Ordinances under the auspices of the National Safety Council has prepared a model bill for States considering the passage of a safety belt usage law. This bill is the product of many hours of effort on the part of experts throughout the nation and every provision has been carefully considered. A copy of the bill is included at the end of this chapter for consideration by those States interested in the possibility of enacting such legislation. Its inclusion in this chapter does not imply NHTSA's endorsement of this particular bill.

Any State that is interested in considering a law that would require any or all vehicle occupants to use safety belts would do well to develop factual material that would show the anticipated impact of the proposed legislation.

SUMMARY

Although there are many ways in which a State may encourage increased usage of safety belts under already existing authority, to date by far the most effective means found has been legislation requiring that certain measures be taken. In addition, legislation requiring belt usage by at least some segments of the population provides added support and impetus for many of the other measures proposed in this manual. This chapter briefly describes a number of legislative options that a State may consider in light of its own needs and its own political climate.

PROPOSED LAW REQUIRING USE OF

SEAT AND SHOULDER BELTS

(The inclusion of this model bill in this chapter
does not imply NHTSA's endorsement
of this particular bill.)

Developed by the National Committee on Uniform Traffic Laws and Ordinances under the auspices of the National Safety Council.

PROPOSED LAW REQUIRING USE OF SEAT AND SHOULDER BELTS

Introduction

This Proposed Law was prepared for the National Safety Council by the National Committee on Uniform Traffic Laws and Ordinances under special procedures that have been developed for the preparation of model laws. This Proposed Law has not been approved by the National Committee on Uniform Traffic Laws and Ordinances and it is not part of that organization's Uniform Vehicle Code. Two preliminary drafts of this Proposed Law were prepared by the National Committee's staff and were distributed for comment on July 17, 1972 and August 29, 1972. The second draft was reviewed and revised by a Special Panel appointed by the Chairman of the National Committee which met on September 27, 1972.

If provisions in the Act should be placed in a state's vehicle code after enactment, it would be unnecessary to enact sections 1, 2 and 8 if suitable definitions, application provisions and penalties are applicable to the remaining sections.

Contents of the Proposed Law

Purpose

The purpose of this Act is to reduce the number and severity of injuries and accidents on the highways by requiring most drivers to use available lap and shoulder belts and by requiring other passengers to use lap and shoulder belts whenever their use is possible, reasonable and safe. The Act would require lap and shoulder belts in most motor vehicles in use on the highways, indicate the effect of nonuse in civil actions and would provide a penalty.

S. 1 Definitions

The following words and phrases when used in this Act shall for the purpose of this Act have the meanings respectively ascribed to them in this section, except when the context otherwise requires.

(a) Bus.-- Every motor vehicle designed for carrying more than 10 passengers.

(b) Commissioner.-- The commissioner of motor vehicles of this State.*

(c) Department.-- The department of motor vehicles of this State.*

*If the term "commissioner" or "department" is not appropriate, the official or agency responsible for administering motor vehicle equipment regulations should be substituted.

(d) Driver.-- Every person who drives or is in actual physical control of a vehicle.

(e) Gross weight.-- The weight of a vehicle without load plus the weight of any load thereon.

(f) Highway.-- The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.

(g) Implement of husbandry.-- Every vehicle designed or adapted and used exclusively for agricultural operations and only incidentally operated or moved upon the highways.

(h) Motor Vehicle.-- Every vehicle which is self-propelled and every vehicle which is propelled by electric power obtained from overhead trolley wires, but not operated upon rails.

(i) Multipurpose passenger vehicle.-- Every motor vehicle designed to carry 10 passengers or less which is constructed either on a truck chassis or with special features for occasional off-highway operation.

(j) Owner.-- A person, other than a lienholder, having the property in or title to a vehicle. The term includes a person entitled to the use and possession of a vehicle subject to a security interest in another person, but excludes a lessee under a lease not intended as security.

(k) Passenger car.-- Every motor vehicle designed for carrying 10 passengers or less except motorcycles and multipurpose passenger vehicles.

(l) Special mobile equipment.-- Every vehicle not designed or used primarily for the transportation of persons or property and only incidentally operated or moved over a highway, including but not limited to: ditch digging apparatus, well boring apparatus and road construction and maintenance machinery such as asphalt spreaders, bituminous mixers, bucket loaders, tractors other than truck tractors, ditchers, levelling graders, finishing machines, motor graders, road rollers, scarifiers, earth moving carry-alls and scrapers, power shovels and drag lines, and self-propelled cranes and earth moving equipment. The term does not include house trailers, dump trucks, truck mounted transit mixers, cranes or shovels, or other vehicles designed for the transportation of persons or property to which machinery has been attached.

(m) Truck-tractor.-- Every motor vehicle designed and used primarily for drawing other vehicles and not so constructed as to carry a load other than as part of the weight of the vehicle and load so drawn.

(n) Vehicle.-- Every device in, upon or by which any person or property is or may be transported or drawn upon a highway excepting devices moved by human power or used exclusively upon stationary rails or tracks.

Comment for S. 1. These definitions are taken from the Uniform Vehicle Code with a few minor modifications for closer conformity with definitions used in Federal Motor Vehicle Safety Standards. The definition in S. 1(i) of "Multipurpose passenger vehicle" is taken from those Standards.

S. 2 Application

The provisions of this Act shall apply to motor vehicles operated upon the highways of this State.

Comment for S. 2. This section applies safety belt equipment and use requirements only to motor vehicles that are operated on highways.

S. 3 Lap and shoulder belts required

(a) Every passenger car manufactured or assembled after January 1, 1965 shall be equipped with lap belt assemblies for use in the driver's and one other front seating position.

(b) Every passenger car manufactured or assembled after January 1, 1968 shall be equipped with a lap belt assembly for each permanent passenger seating position.

(c) Every passenger car manufactured or assembled after January 1, 1968 shall be equipped with at least two shoulder belt assemblies for use in front seating positions.

(d) Every truck, bus and multipurpose passenger vehicle manufactured or assembled after July 1, 1971 shall be equipped with a lap belt assembly or with a lap and shoulder belt assembly in the driver's seating position.

(e) Every truck tractor manufactured or assembled after January 1, 1965 that is designed to draw a vehicle with a gross weight over 10,000 pounds shall be equipped with a lap belt assembly for use in the driver's seating position by (January 1, 1974).

(f) The commissioner may except specified types of motor vehicles or seating positions within any motor vehicle from the requirements imposed by subsections (a) through (e) when compliance would be impractical.

(g) No person shall install, distribute, have for sale, offer for sale or sell any belt for use in motor vehicles unless it meets current minimum standards and specifications (approved by the commissioner) (of the United States Department of Transportation).

(h) Every owner shall maintain belts and assemblies required by this section in proper condition and in a manner that will enable passengers to use them.

(i) This section shall not apply to implements of husbandry or special mobile equipment.

Comment for S. 3. This section requires belts for most motor vehicles used on the highways.

In subsection (a), no state should substitute a date later than January 1, 1965 because lap belts were installed as standard equipment in the front seats of all domestically-manufactured cars after that date. However, in states having laws that require belts in cars made before January 1, 1965, the earlier date should be retained.

Subsections (b) and (c) require the same belts as those required by Federal Motor Vehicle Safety Standards when the vehicle was made. However, recent revisions in those Standards require more belts in some trucks and multipurpose passenger vehicles than subsection (d) does. An alternative to subsections (b) through (d) would be one subsection requiring all motor vehicles made after January 1, 1968 to be equipped with the lap and shoulder belts that were required at the time the vehicle was manufactured or assembled by standards adopted by the United States Department of Transportation.

As to subsection (e), because some truck tractors made between January 1, 1965 and July 1, 1971, are not equipped with belts, a suitable period from the time of enactment should be allowed for their installation by inserting a date at the end of subsection (e). A requirement to install lap belts for use by the drivers of school buses made before July 1, 1971, should also be considered.

In subsection (g), the enacting state should select language from one of the two parentheses.

S. 4 Driver must use lap belt

(a) Every driver (of a motor vehicle operated on any highway) shall wear a properly adjusted and fastened lap belt.

(b) Subsection (a) shall not apply to:

(1) A driver in a seating position that is not equipped with a lap belt;

(2) A driver frequently stopping and leaving the vehicle or delivering property from the vehicle so long as the speed of the vehicle between stops does not exceed 15 miles per hour.

(3) A driver possessing a written indication from a physician that he is unable for medical or physical reasons to wear a lap belt; or

(4) A driver possessing a certificate or license endorsement issued by the department, or a similar agency in another state or country, indicating he is unable for medical, physical or other valid reasons to wear a lap belt.

Comment for S. 4. This section requires most drivers to use available lap belts. Appropriate exceptions are made for persons who cannot be reasonably expected to use them. The language in the parentheses in subsection (a) could be omitted if S. 2 is enacted.

S. 5 Driver must use shoulder belt

(a) Every driver (of a motor vehicle operated on any highway) shall wear a properly adjusted and fastened shoulder belt.

(b) Subsection (a) shall not apply:

(1) To a driver in a seating position that is not equipped with a lap belt or a usable lap belt;

(2) To a driver in a seating position that is not equipped with a shoulder belt or with a usable shoulder belt;

(3) To a driver frequently stopping and leaving the vehicle or delivering property from the vehicle so long as the speed of the vehicle between stops does not exceed 15 miles per hour;

(4) To a driver possessing a written indication from a physician that he is unable for medical or physical reasons to wear a lap belt or a shoulder belt;

(5) To a driver possessing a certificate or license endorsement issued by the department, or a similar agency in another state or country, indicating he is unable for medical, physical or other valid reasons to wear a lap belt or a shoulder belt; or

(6) When use of the shoulder belt would interfere with operation of the vehicle.

Comment for S. 5. This section requires most drivers to use available shoulder belts. Because it is unsafe to wear a shoulder belt without also wearing a lap belt, this section should not be adopted unless S. 4 is also enacted. The language in parentheses in subsection (a) could be omitted if S. 2 is adopted.

S. 6 Passengers must use lap and shoulder belts

Every passenger (of a motor vehicle operated on any highway) other than the driver shall wear a properly adjusted and fastened lap belt, or a properly adjusted and fastened lap belt and shoulder belt if his seating position is so equipped, unless such use is not possible, safe or reasonable or unless such passenger belongs to a class of persons exempted for medical, physical or occupational reasons under rules adopted by the department.

Comment for S. 6. Passengers other than drivers in motor vehicles operated on the highways would be required under this section to wear available belts whenever their use is possible, safe and reasonable. If there are no belts, their use would not be possible and would not be required. Persons who are very young would be exempted because their use of safety belts would be unsafe. Passengers whose occupational, medical or physical condition prevents compliance would also be excluded because the use of belts would be unreasonable. In addition, the department of motor vehicles would be authorized to exempt persons for medical, physical and occupational reasons.

S. 7 Effect of nonuse in civil litigation

Failure to use any belt in violation of this Act (shall preclude) (shall not diminish) recovery for damages arising out of the ownership, maintenance or use of a motor vehicle (but only as to damages caused by such failure).

Comment for S. 7. If a person fails to wear a belt in violation of sections 4 through 6 and is injured in a crash, should damages resulting from such nonuse be deducted from his recovery in civil action?

There was a significant difference of opinion on this matter among members of the Panel and commentators. Some persons thought that if injuries result from illegally failing to wear a belt, compensation for them under the fault system should be denied. Other persons were opposed to any such reduction.

The majority view among members of the Panel was that enacting legislatures should decide this matter one way or the other. If a state wishes to allow dimunition of damages for illegally failing to wear belts, it should adopt the words "shall preclude" and the language in the concluding parentheses. If a state does not want damages reduced because of failing to wear belts, it should adopt the words "shall not diminish" and omit the words in the concluding parentheses.

S. 8 Penalties

(a) It is a misdemeanor for any persons to violate any of the provisions of this Act.

(b) Every person convicted of a violation of this Act shall be punished by a fine of not more than $25.

(c) A court may probate or suspend all or any part of the penalty in subsection (b) upon such terms and conditions as the court shall prescribe. Such conditions may include driving with no further violations of the (state vehicle code) during a specified time or performing or refraining from performing such acts as may be ordered by the court.

Comment for S. 8. A maximum fine of $25 and alternative penalties for judges to impose were thought reasonable.

Chapter 12

PUBLIC INFORMATION AND EDUCATION

While the information, education and dissemination process is an essential part of most of the chapters in this manual, the information presented has, thus far, been concerned with specific actions to be taken by individual departments or groups in order to best utilize the resources available to them.

In addition to those actions, which are usually taken at an administrative or management level, a great number of departments or divisions have available to them the expertise of professional communicators in the public information and education sections of their work unit. This chapter will provide guidelines and programs which can be utilized to implement administrative programs or supplement those programs with information and education services.

The various techniques to induce safety belt usage which have been described in the preceding chapters, in many cases, will necessitate the use of the communicator's "tools." These tools are, in essence, the various channels of communications which are available, i.e., electronic media, print media, opinion leaders, and special events. More importantly, however, they include the professional judgment and knowledge of the communicators and public relations people themselves, who can supply the counsel and expertise to assure that each segment of the intended audience receives the message in a form that is likely to elicit the desired response--in this case, safety belt utilization.

The primary purpose of this chapter is to provide information concerning effective techniques for use in public information campaigns. However, a secondary goal is to stress the importance of and need for a coordinated and cooperative public information effort on behalf of the various governmental units and private citizens groups who have an interest and a responsibility in the area of restraint systems. [1]

There have been numerous reports and observations concerning the alleged inability of mass media campaigns to alter the public's behavior patterns concerning safety belts or to increase safety belt usage. However, these campaigns have usually been of short duration and utilized primarily one medium--television. The use of a television campaign by itself, especially if limited arbitrarily to 30 or 60 second public service announcements, is an incomplete public education program that cannot predict the ability or inability of a coordinated communications program to establish a favorable arena of positive public opinion.

A national survey of drivers showed that the driving population falls roughly into three equal size groups, namely, those who always use belts, those who occasionally use belts, and those who never use them.[1] The communications effort should be broad based and directed to the continued use of safety belts by those who do so at present; the increased usage by those who wear safety belts occasionally; and, hopefully, a change in the attitude and behavior on the part of that segment of the population who through fear, guilt, resentment, or inconvenience do not choose to wear safety belts at all. [2]

A recent review of research on safety belts reports that messages based on fear, shock, or gore apparently have no impact on belt usage. Even having been in a crash or having lost a loved one in a crash does not influence one's safety belt usage. Rather it appears that messages stressing the use of safety belts as part of a habit pattern are more effective than messages based on shock value.[2]

The ideal program will bring together (at a minimum) the public information and administrative personnel of the law enforcement, courts, public health, transportation, and highway departments, as well as those from the Governor's Office and the Office of the Governor's Highway Safety Representative. In addition, there are personnel in various other departments, in private industry and citizens groups who can participate effectively. A coordinated campaign will, in effect, promote messages from as many sources as possible and, at the same time, encourage each source to prepare as many messages as possible and act to coordinate the many messages to prevent duplication.

Wherever possible use should be made of local crash data, including use or nonuse of safety belts. Such data should be routinely included as part of the police "blotter" and systematically compiled for local jurisdictions as well as for the State as a whole. This use of local data should be considered a basic strategy in the public information and education campaign.

The messages used, which will be most effective when aimed toward achieving overt behavior on the part of the recipient, can take many forms. These forms are easily defined within the following areas:

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[1]"A Summary Report of Driver Attitudes Toward Restraints for Greater Safety in the Operation of an Automobile," Yankelovich, Skelly, and White, Inc., September, 1976.

[2]"Summary of Existing Research on Seat Belts," Market Research Group, Inc., January, 1977.

1. Electronic Media - includes radio, television, and audiovisuals and can be used in the following ways: [3]

1a. Public Service Announcements - The use of public service announcements in both radio and television is an effective tool if used in a coordinated program. The "spots" which can be 10, 30, or 60 seconds in length need to be localized, creative and imaginative to obtain the greatest usage and have the greatest impact on the viewer or listener. Radio spots must be designed with the listener, not the viewer, in mind, but can be equally as stimulating as visual spots and have the added benefit of the listener's imagination. [4]

1b. Live Coverage of "News" Events - The creation of an event such as a press conference to which all media are invited is effective if the event is truly newsworthy. A conference to announce a coordinated campaign by various governmental units in cooperation with citizens groups to increase life saving safety belt usage is a guaranteed coverage getter. Coverage of other campaign related events such as speeches and rallys is also probable if sufficient notice is given to the media and if these notifications are accompanied by fact sheets and background information. If the event is one in which action can be incorporated (use of the "seat belt convincer" for instance), a great deal more coverage can be obtained by providing different sets of action with different participants to give each reporter an "exclusive" story. This involves more work, but can pay off big in media coverage dividends. [5]

1c. Interviews - Interviews can be utilized in a number of ways, but are especially effective when they are coordinated with a press conference. Immediately following the conference, have the Governor, various department and division heads, and important individuals from involved citizens groups available for individual interviews. This not only increases the potential for coverage on regularly scheduled news broadcasts, but may many times lead to special, feature length news programs covering your campaign. [6]

1d. Personal Appearances - Another possibility which presents itself as a result of post-conference interviews is the invitation for government officials and others involved in the campaign to appear on local radio and television "talk" or interview shows. Even if the invitations are not [7]

forthcoming as a direct press conference result, these shows are constantly seeking interesting and informative people to appear and every effort should be made to publicize the availability of campaign participants.

1e. Children's Programs - Virtually every city which has television or radio broadcasting facilities originates some local children's programming. An appearance by law enforcement personnel to emphasize the importance of safety belt usage is an effective way to impress upon young viewers the importance of restraint systems. Likewise, some radio stations have children's story hours on Saturday or Sunday mornings. Specially developed stories built around the safety belt theme can be placed for usage on these programs. Once again the bywords are creativity and imagination. [8]

1f. Films - In conjunction with a coordinated campaign, film usage on local television stations and before groups can be extremely effective. Such organizations as the Insurance Institute for Highway Safety, The National Safety Council and the American Safety Belt Council can be approached to provide such films. In many cases, local stations will either donate time for such film showings or service and professional organizations in local communities can be encouraged to sponsor them. [9]

1g. Film Strips and Slide Presentations - While film strips and slide presentations are not necessarily "electronic media" in the strict sense of the words, they utilize the eye and ear in essentially the same manner. A filmstrip on safety belt usage or a 20-25 minute slide presentation (approximately 60-75 slides) can be used effectively to augment the presentation of a speaker before service and community groups as well as school assemblies, church groups and youth organizations. Slides can also be used effectively in small numbers on television interview or "talk" shows to give visual "substance" to the speakers words. An effective utilization of slides would be to review case histories of automobile accidents in which safety belts were or were not used. The American Association for Automotive Medicine has done just this, developing slides with coordinated text, but it should be possible to develop such materials based on crashes experienced in your own State. [10]

1h. Network Programming - Probably the most productive long range effect that network television can have on safety belt usage is to either mandate or encourage the incorporation of safety belt usage into regularly scheduled programming. The impact of television series heroes and heroines on youthful (and not so youthful) viewers is incalculable, but readily evident in the mass of by-products which are purchased by an adoring public. The Six Million Dollar Man was at least for a while the idol of millions of youngsters who did their best to emulate his dress and behavior. If Steve Austin would buckle up it would have far more impact on children than any public service announcement. The question is, how can local government officials and private citizens of an individual State encourage or even demand that network programming assist in this most important area? The easiest and most logical way, in addition to a letter writing campaign on the part of the public, is to actively involve the owner-managers of local network affiliate stations in each State in the campaign. If there is one group, other than those people with Nielson Meters, to whom network executives will listen attentively, it is their affiliated station owners and managers. A conference between the involved government officials, private citizens and station owner-managers can be a positive first step in changing the behavior of television heroes. If they start buckling up (noticeably) on the air, it may affect the behavior and attitudes of literally millions of viewers. [11]

1i. Television Commercials - Commercials, when produced with creativity, are a powerful inducement to mold and shape behavior and attitude. Their slogans and ideas are picked up and assimilated quickly into everyday behavior patterns of the viewers. It is, therefore, extremely important to include safety belt usage in commercials (where appropriate). While some pressure and influence can be exerted by the station owner-managers discussed in 1h., and further influencing behavior can be exhibited in letter writing campaigns to product manufacturers, a special avenue to explore is with automobile dealers. By gaining the cooperation of the State automobile dealers association and involving the members, the member dealers can impress upon the manufacturers [12]

the importance of safety belt usage and instruction in their network broadcasting. The same emphasis can be encouraged in the advertisements of the dealers in their own localities.

2. Print Media - includes newspapers and magazines, but also encompasses any other format that utilizes the printed word to communicate the message. [13]

2a. Coverage of "News" Events - The newspaper and magazine reporters make use of events such as press conferences in much the same way as electronic media representatives. The primary difference lies in the depth with which each medium can cover any particular story. Reporters in the print medium usually have available to them more potential "space" in which to cover an event or happening. They, therefore, are able to include more detail and background than their counterparts in the electronic area. Because of the differences in the two media, the fact sheets and background information which are supplied as a matter of normal course to the reporters and which cover the campaign goals, participants, important individuals involved, and statistics upon which news stories can be based, are likely to be more fully utilized by print reporters. Post-conference interviews are equally as important to print reporters as to those in the electronic area and all media should be fully apprised as to the impending nature of events in the campaign. [14]

2b. Sunday Supplement Features - While feature stories in Sunday newspaper supplements are usually scheduled and written months in advance of publication date, there are opportunities in a well planned campaign to place stories in such publications. Coverage in the supplement magazines has high readership due to the use of photographs (many times in color). Another positive aspect of placement in Sunday supplements and other magazines is the possibility of obtaining reprints to use in distribution along with other campaign materials. [15]

2c. Magazine Articles - Coverage in magazine articles is greatly to be desired if it is possible to obtain. While not all localities have regional or statewide magazines available, many publications of this nature are in existence and are constantly looking for material of local interest. Another possibility which should be explored is the cooperation of large industry and employers in each locality. Large [16]

companies usually have "in-house" publications which are directed to their employees and, in some cases, their customers. These publications are an excellent vehicle for communicating the safety belt message and are usually in need of material and story ideas on a regular basis. A positive attraction with which to approach the editors of such publications is the involvement of their employees actively in the campaign. This avenue should be considered, in that it provides more individuals to spread the message.

2d. Brochures - Whether they are simple black on white, tri-fold 8 1/2 x 11 inch sheets used as envelope stuffers, or larger, more expensive three-color handout type materials, brochures are an effective method by which messages can be transmitted to an audience. They can be as inexpensive or as elaborate as time and available money can make them. If the campaign has a central theme or slogan, a brochure can be formulated using that theme as its focal point. A brochure can incorporate as much or as little information as is needed, with the only limitations being those created by funding restrictions and the imagination of the communicator. Brochures aimed at special target groups, e.g., infants and small children can be placed appropriately, e.g. pediatricians' offices. [17]

A good way to reach some of the people which may not be reached by other means is through the churches. In certain parts of the country, especially in the South, the Church is the activity center for these people. Therefore the safety belt message can be communicated to this group by their preachers or by passing out brochures along with the Church publications. Such activity would be entirely in keeping with the history of the church in our country where all major denominations promote, financially and otherwise, the concept of health.

2e. Billboards and Posters - Where billboards are allowed they can be used to carry the safety belt message. The State of Virginia has launched a program called "Mother Knows Best" which uses billboards to call attention to the importance of carefully "packaging" one's most precious cargo, namely, one's small children. The campaign uses other techniques [18]

to reinforce the billboard messages and to encourage parents to use child restraint systems. Overall there has been widespread favorable response to this effort.

Posters, like brochures, work best when incorporating a major theme or slogan. They can be utilized in varying sizes depending on the message and intended audience, and lend themselves well to the use of color. Posters are also effective as a tool to encourage participation on the part of young people in the K-9 age group. A poster contest, sponsored by either State governmental agencies or private groups or a combination of both is a method by which a great deal of information can be disseminated to children through the schools. Necessitating the participation by the governmental agency responsible for the public schools, the contest should have a central theme and prizes can be awarded for the best representation of that theme in the various age groups. Prizes can be donated by various commercial enterprises and winning entries can be duplicated for use in the Statewide campaign.

A poster contest lends itself quite naturally to the dissemination of supporting information through the use of speakers (from law enforcement agencies, insurance associations, physicians, etc.); films; film strips; slide presentations; brochures; bumper stickers and other "tools" of the overall campaign. Once the information has been presented, the contest can serve as an outlet for the knowledge gained by the children, and an effective device to determine the depth of understanding of material which has been presented. Depending upon the quality of the products, consideration might be given to displaying the posters in public places such as driver license examination stations or shopping malls.

2f. Bumper Stickers - These devices are a simple and cost effective way in which to keep the central theme of the campaign before the public. They can also be utilized as "give-a-ways" in schools, doctors' offices, shopping centers, driver licensing stations, insurance agents' offices, etc. They also lend themselves well to radio promotion, and stations are often willing to add their call letters to the stickers giving added emphasis from media sources. In order to make the stickers cost effective, it is many times possible to design the format for the material [19]

and place it with a printer. Then each participating group, department, and organization may purchase directly from the printer whatever number they desire.

2g. Newspaper Editorials - A certain portion of the newspaper reading population turns to and reads with great interest the editorial section of their daily paper. For this reason, a concerted effort on the part of the newspaper to print editorials either randomly or in series, concerning the need for safety belt usage is an effective technique to be incorporated into the campaign. Editorial writers should be provided with detailed background information and fact sheets in order to be able to write informed and educated material. The possibility also exists that guest editorials can be arranged, utilizing the talents (ghosted or otherwise) of various officials and personalities in the coordinated campaign. These signed editorials on the part of government officials, radio and television personalities, law enforcement officers, doctors and school officials can also be adapted for use (hopefully in person) as television and radio editorials. [20]

2h. Cartoons and Comics - One of the most widely read portions of the newspaper is the comics section and the cartoons accompanying the editorial page. Editorial cartoonists, especially on major daily newspapers are, many times, local artists and are easily accessible to approach by campaign officials. The artists involved with comic strips on the other hand, are usually syndicated, but can be approached by letter or better yet, through the owners and editors of newspapers which subscribe to their services. Comic strips using safety belt themes could be an effective method of reaching people who can be reached in few other media. Many strips such as Mary Worth are dealing realistically with socially important phenomena and there are few issues that can compete with the great number of deaths and disfigurations which accompany the lack of safety belt usage. Other cartoon strips which employ humor as their focal point provide an excellent format for drawing serious attention to the foolish people who continue to drive automobiles without adequate protection. [21]

2i. Newspaper Display Advertising - A rather expensive, but noticeable way in which to communicate the campaign message is through the use of newspaper display advertising. The cost of these advertisements [22]

can be, in some instances, covered by private organizations and is probably most effective when trying to elicit a specific action, i.e., "Support Efforts to Require Belt Usage For Beginning Drivers." It is probably least effective when seeking to develop an immediate attitude change. Like television spot announcements, display advertising is unable to stand alone and should be used only as an integrated part of an overall campaign.

2j. Newspaper Blitz - If it can be arranged, the "all-out" support of one or more major daily newspapers can be extremely useful in the delivery of the message. Depending upon the news policy of the paper, it may be possible to secure day-by-day accounts of death tolls, including safety belt usage information and continuing coverage supporting both the specific safety belt campaign and the necessity for belt usage. [23]

3. Opinion Leaders - In each State and local community there are those individuals to whom others look for leadership and guidance. In many cases they are government officials and elected representatives, but their number also includes officers of community and service organizations, business leaders, physicians, school officials, sports figures, lawyers, and the leaders of youth organizations such as Boy and Girl Scouts and 4-H. It is most important that these individuals be reached and, if possible, enlisted in the cause of safety belt usage. [24]

3a. Community Service Organizations - Each State and local community has within its boundaries a number of service groups such as Rotary, Lions, Junior Service League, Civitan, and JayCee organizations. The leaders of the community usually belong to and participate in one or more of these organizations. Such organizations then are vital sources of support both in volunteers and money. Involving these organizations in an active participation not only provides an outlet for messages and materials, but also taps a reservoir of speakers, workers and ideas which cuts across community and special interests. [25]

3b. Professional Organizations - The existence of medical and dental associations, bar associations, associations of insurance agents, and other such organizations in each State provide an opportunity once again to directly involve those opinion and community leaders who are closest to and most interested in the need for

increased and continued safety belt usage. In addition, the Women's Auxiliaries of such groups should not be overlooked as a source of powerful and effective support. The personal contact through doctors and lawyers offices; through mailers sent with insurance, medical and legal mailings; and the use of individuals from these organizations in media and public contact, widens the possible effectiveness of the overall campaign greatly.

3c. Youth Organizations - Such organizations as the Youth Driver Education Association, Boy Scouts, the Girl Scouts, 4-H and a multitude of other special interest youth groups not only provide a most important audience for the safety belt message; but also can provide an enthusiastic work force to spread the safety belt message into schools and homes throughout their communities. Special designations and awards can be made available to young people who actively participate in the program and this impetus can do much to reinforce the messages received through various other media. 4-H already recognizes highway safety as an official area in which young people may work for credit, so that safety belt efforts could readily be incorporated.

4. Special Events - This is an area that includes, but is not limited to, combinations of the other techniques covered in this and other chapters. It addresses the importance of one-time, attention getting events and devices as well as continuing programs on a special theme or format. [26]

4a. Proclamations - Although Gubernatorial and Mayoral proclamations are utilized (and perhaps over-utilized) on a widespread basis by many organizations, they continue to be an effective means of drawing media attention to an event or program. Likewise, legislatures can pass resolutions supporting the goals and efforts of a safety belt campaign or, in specific instances, simply supporting the use of safety belts by the general public. Such proclamations and resolutions provide "newsworthy" happenings upon which a press conference or even the "kick-off" of a coordinated campaign can be based.

4b. Speakers Bureaus - The availability of enthusiastic and informed individuals who are willing to speak before public gatherings on behalf of safety belt usage can provide a vitally important link between

the various segments of the community. Even if the structure under which these speakers are made available is not formalized to the point of being a "speaker's bureau," those individuals who are entertaining and at ease before groups should be identified within each of the participating departments and organizations. Speeches can be prepared, either jointly by the combined public information staffs for use and adaptation by any or all identified speakers, or by individual organizations and departments drawing on their special knowledge of individual capabilities and audience interests. There is some justification for using the latter method, in that it conforms to the pattern discussed earlier, of communicating as many different messages as possible from the greatest possible number of sources. Once the speakers have been identified and properly prepared, it simply becomes a matter of publicizing their availability to schools, service clubs, professional groups, churches and youth organizations. If these groups have been included in the overall effort in a participatory manner, this task becomes much easier.

Other ideas which merit consideration include:

4c. Education Workshops - in high schools, churches, civic and service clubs to gain media coverage and provide information to these organizations.

4d. School Bus Rodeos - can be utilized to promote the use of safety belts generally and specifically can promote their use by school bus drivers. These events can also provide a useful method of building media interest.

4e. Promotions and "Give-A-Ways" - Young people often sponsor car washes as a fund raising technique. They could include safety belt inspections as an integral part of this activity and do whatever could readily be done to make the belts more available (e.g., retrieving them from under the seat) and usable (e.g., cleaning them up). When belts look worn, they could recommend that they have them checked and possibly replaced at any local automobile dealer. A limited interest might also be elicited in the community by having persons such as Boy Scouts or other readily identifiable persons in parking areas or at intersections handing out stickers or

other promotional material to those people who are identified as wearing their safety belts. This type of positive reinforcement of belt wearing behavior can be an asset to the overall coordinated campaign.

Figure 1 illustrates one approach to planning a public information and education campaign. Each of the steps portrayed should be carefully considered in the early stages of planning so that once the campaign is under way the major decisions have already been made. The use of such an overall approach should also facilitate the integration and coordination of input from the various State agencies as well as the private sector.

The U.S. Department of Transportation, as well as a number of private organizations, has developed materials that may be of use to a State in its public information and education program. A listing is provided at the end of this chapter of some of these materials and where they may be obtained.

SUMMARY

The uses of communication tools and techniques are many and varied. This chapter has reviewed some of the major techniques but is not intended to address all of them or to discourage variations or unique ideas which are not included. It is simply intended to provide guidelines and ideas which can be implemented to assist in a unified, coordinated and cooperative campaign on the part of governmental agencies and private citizens groups to encourage safety belt usage. Such an effort is necessary and beneficial to the attainment of a maximum usage of voluntary restraint systems by the public. [27]

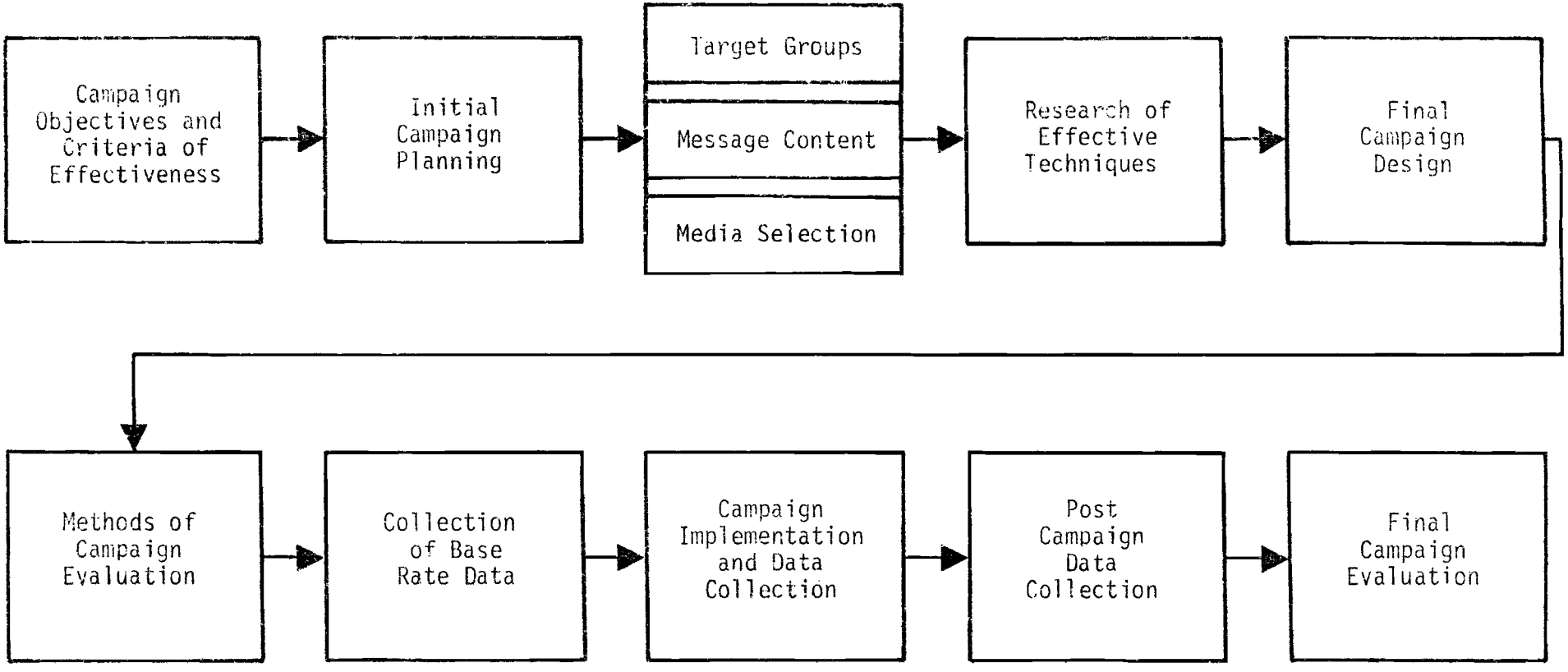

Figure 1. Diagram of safety belt campaign and evaluation.

(Adapted from, "The Use of Mass Media for Highway Safety," U.S. Department of Transportation National Highway Traffic Safety Administration, June 1974.)

WHERE TO GET SAFETY BELT MATERIALS

NHTSA MATERIALS

Automobile Safety Belt Fact Book
This booklet summarizes all relevant information about the effectiveness of safety belts. It describes the motivating factors related to safety belt usage and suggested ways to influence others to wear them (General Audience).

There Are Lots of Safety Belt Myths...Why not Consider the Truths?
This brochure is designed to dispel the misconceptions commonly used as reasons for not wearing safety belts (General Audience).

Teaching Children About Safety Belts--Kindergarten Through Third Grade(Elementary School).

Automobile Safety Belt Activities Book--Grades 4 Through 7
These two elementary school booklets provide a variety of suggested classroom activities that the teacher may use to encourage students to wear safety belts (Elementary School).

Safety Belt Activity Book
An illustrated teachers' guide for grades K-6, and has instructions for 20 classroom group activities designed to inform children about belts and encourage their use (Elementary School).

The Safety Belt Game
A safety-oriented board game for two to four children, suitable for grades 2 through 6 (Elementary School).

Safety Belt Instructional Booklet
This is a programmed instructional text for use by the student. It may be used by the student on his own or it may be used in the classroom curriculum. The booklet teaches the student why safety belt usage is important and how to use them (Driver Education).

Instructor Guide
Outlines classroom techniques for "teaching safety belts". Explains how to use the Safety Belt Instructional Booklet, lists appropriate audiovisual material, and provides relevant information for in-car training (Driver Education).

NHTSA MATERIALS (Continued)

How Many of These Fairy Tales Have You Told?
It presents the most common reasons given for not wearing safety belts and counters them with facts (Driver Education).

Getting the Safety Belt Message Across-
A Guide for Driver Education Instructors. This presents guidelines for five classroom presentations on safety belts to supplement regular driver education curricula (Driver Education).

The Safety Belt Message-The Student's Lesson.
This is a self-directed student's learning booklet presenting the reasons that safety belts should be worn and how to wear them properly (Driver Education).

The Case for Seat Belts
Furnishes documented evidence that safety belts reduce fatalities and severity of injuries casued by automobile crashes. The material is arranged as a reference guide and also included data to refute the myths surrounding the use of safety belts (Legislators, Judges and Attorneys).

Suggested Modifications in State Licensing Manuals to Encourage Safety Belt Usage
Materials in this booklet include explanatory text, question and answer sequences, slogans, illustrations and text items which are suitable for inclusion in licensing manuals and the driver licensing written test (Driver Licensing Officials).

Suggestions for Possible Program Activities to Increase the Use of Vehicle Restraint Systems
Provides the safety director with a variety of programs designed to increase safety belt usage among all employees. These safety suggestions can be incorporated into existing safety programs or they may be used independently (Employees of Government and Industry).

Summary of Film Evaluations
This booklet summarizes and evaluates films that pertain to safety belt systems and provides availability of the films (Employees of Government and Industry).

What to Buy in Child Restraint Systems
An illustrated 12 page consumers guide. Appropriate for medical personnel hand-outs. $.20 each.Available from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 (Physicians, Pediatricians, Consumers).

NHTSA MATERIALS (Continued)

Safety Belts: A recommendation to Driver Educators
Provides the college instructor who teaches future driver instructors with methods for presenting the topic of safety belts. Use of the above driver educational booklets and the Fact Book are discussed (Driver Education).

Teaching the Safety Belt Message--A Guide for Teachers of Driver Education Instructors
Outlines several methods for presenting the topic of safety belts in the classroom (Driver Education).

Encouraging Employees to Use Safety Belts
The booklet covers the following: how to organize a safety belt program, basic programs, distributing literature, audiovisual presentation, classroom type presentation, demonstration and a comprehensive program (Employees).

FOR INFORMATION ON THE ABOVE MATERIALS, WRITE TO:

NHTSA N48-42
U.S. Department of Transportation
Washington, D.C. 20590

NON-GOVERNMENT MATERIALS

A film entitled "Where Have All the People Gone?"
Contact Mr. Michael Scanlon,
Executive Vice President,
American Safety Belt Council, Suite 460, 1730
Pennsylvania Avenue, N.W., Washington, D.C. 20006
(General Audience).

A pamphlet entitled "They're Working Around the Globe".
Free from American Safety Belt Council, Suite 460,
1730 Pennsylvania Avenue, N.W., Washington, D.C. 20006
(General Audience).

Safety Belt Sticker
This attractive red and white vinyl sticker is long-lasting and peels off easily after use, leaving no residue.
Available from the AAA (Children, High School and Adult).

Protect Your Child
This pamphlet describes car restraint systems for small children. Available from the AAA (Parents).

Seat Belts Save Lives--Only If Used
This attention-getting approach to seat belt use tells the motorist how safety belts protect in the event of a crash. The fact that safety belts hold a driver in position and thus make it easier to control the car in an emergency is also stressed. Available from the AAA (High School, Adult).

The Life Guards in Your Car
A pamphlet on safety belts. For information on rates and quantities write: Highway Users Federation, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036 (General Audience).

An Ode For the Road
A pocket-sized pamphlet outlining the reasons and excuses for not using safety belts. Available from Imagination Inc., 2651 University Avenue, St. Paul, Minnesota 55114
(General Audience).

Information Pamphlet distributed by Government Employees Insurance Company (GEICO). This pamphlet is written in brief, simple language, and is directed at the company's policy holders and shows that GEICO is interested in a lot more than collecting premiums. Write GEICO, P.O. Box 5362, Washington, D.C. 20016 (General Audience).

OTHER MATERIALS

The Human Collision

A colorful and visually imaginative brochure. It shows exactly what happens to both the auto and occupant involved in a collision, and how safety belts act to prevent or minimize human injury. Much of the brochure was developed using data from numerous crash tests conducted in both Canada and the U.S. It ends with an excellent bibliography of articles, abstracts and research prepared on safety belts. Available from Canadian Ministry of Transportation and Communications (General Audience).

Canada's Safety Belt Educational Package

Two films, a children's program, a citizen's handbook, T-shirts and various other collateral materials have also been developed as part of Canada's safety belt educational effort. For further information write: Driver-Vehicle Operations Research, Research and Development Division, Ministry of Transportation and Communications, 1201 Wilson Avenue, Downsview, Ontario M3M 1J8 (General Audience).

Safety Belts Fact and Fiction

This package consists of slides, audio casette and leader's booklet, suitable for use for any type of public meeting. The audio-visual aids can be ordered through the National Archives Records Branch, National Audio-Visual Center, Washington, D.C. 20409. For more information on the printed safety belt materials, write: Superintendent of Documents, GPO, Washington, D.C. 20400 (General Audience).