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Abstract

The report examines potential legal challenges to mandatory seat belt usage laws. The recent flurry of such laws resurrects questions about the propriety of state regulation of private individuals' behavior for the sake of highway safety. Many of these questions were discussed several years ago in the debate over mandatory motorcycle helmet laws. These precedents provide useful examples for examining similar issues in the context of seat belt laws.

The first portion of the report summarizes the history of the federal incentive for mandatory seat belt laws. The report then examines public attitudes towards seat belt use and compares them to evidence of the efficacy of belts in saving lives, discussing why compulsion seems necessary to increase belt usage rates.

This information provides a foundation for the discussion of the constitutional issues. The right to privacy, freedom to travel, and state interest in protecting life are discussed. Next, the due process question about the strength of the correlation between mandatory laws and the public goal of saving lives is examined. Concluding comments are offered that belts are sufficiently effective and voluntary usage so inadequate that mandatory belt use laws would survive all legal challenges.

THE CONSTITUTIONALITY OF MANDATORY SEAT BELT LAWS

by

Mark L. Booz
Graduate Legal Assistant

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

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ABSTRACT

Low seat belt usage rates have persisted for years despite efforts to educate people about belts' benefits. There is ample documentation of the contribution of seat belts to saving lives and reducing injury. The emotional and pecuniary toll of the failure to use belts is enormous, yet of little effect in modifying people's behavior. Involuntary measures seem to be the only effective solution to the problem of misperceptions about belts' effectiveness and ingrained attitudes which resist education. Compulsory belt use laws have been successful in other countries, and since 1984 have been considered by the Department of Transportation to be a viable alternative to passive restraints.

The possibility of the widespread adoption of mandatory belt use laws has again raised questions about the legitimacy of such self-protective legislation. A similar debate spawned many court cases 15-20 years ago when mandatory motorcycle helmet use laws were passed. Many of the arguments made then are relevant to the seat belt issue. The basic question remains: Are the devices effective enough and is the public interest in protecting the individual strong enough to warrant the intrusion on privacy?

The answer must consider that driving takes place in a public arena. Further, studies indicate a substantial correlation between seat belt use and the protection of life and health. A case can be made for many third party effects and social costs of accidents, so this matter involves more than a mere question of the individual right of privacy. Given the traditional deference of the courts to state legislatures in the area of highway safety regulation, mandatory seat belt use laws may well pass constitutional challenges.

Various legal theories support this conclusion. The right to travel is subject to reasonable regulation. A law applicable to all automobiles can hardly be described as discriminatory, thus dismissing equal protection objections. As long as there is no substantial interference with interstate travel and there are tangible "local" benefits, the flow of commerce is not impermissibly restricted. The volume of statistics supporting belts' efficacy constitute a reasonable means of serving a legitimate state interest in public health and welfare. They may well pass a more rigorous standard, and amount to a real and substantial relation between the law and its objective. The due process challenge thus being satisfied, the remaining question becomes one of a policy choice for the legislature about the desirability of this means over other alternatives.

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INTRODUCTION

Seat belts have been installed in most automobiles manufactured in the United States for the past 20 years. They are now required on every car sold in America regardless of the place of assembly. Yet their nearly ubiquitous presence in cars on the road today does not translate into regular use of them by the American motoring public. When seat belts were a relatively new phenomenon, reasons for disuse often reflected skepticism about their efficacy. Some contended that in certain situations belts might even aggravate injury. This suspicion was reflected in the reluctance of courts to establish a common law duty to wear belts or to allow evidence of nonuse to mitigate damages in civil suits. Many of those attitudes persist today.

But years of studying the efficacy of seat belts in saving lives and preventing injury has generated substantial evidence that the old fears are unfounded. Acknowledgement of this proof is found in some recent adoptions of the so-called seat belt defense in several jurisdictions. The results of these studies prompted much publicity and many media campaigns aimed at increasing awareness of the benefits of wearing seat belts. Yet surveys show that the usage rate among the general public remains dismally low. The National Highway Traffic Safety Administration (NHTSA) years ago opted for the installation of "passive restraints" that deployed automatically as the resolution to this seemingly unjustified public resistance or indifference. That tactic fell victim to the vicissitudes of politics and has been through several modifications and restorations over the past decade. The latest strategy brings federal pressure to bear to induce states to adopt laws that mandate use of the already present belts. While passive restraints were objectionable because they were involuntary, mandatory use laws are more odious because of the introduction of compulsion.

This imposition on personal liberty may produce more vociferous objections than its less obstructive predecessors. Yet such regulation in the name of highway safety is not without precedent. A similar debate arose over the passage of mandatory motorcycle helmet use laws in the late 1960s and early 1970s. The arguments proposed by both sides

then are likely to resurface in the battle over mandatory seat belt laws. But the seat belt debate may also draw on other developments in the jurisprudence of highway safety and the regulation of driving and automobiles. The basic tension between individual rights and the interests of the state still remains at the core of the discussion.

This report develops this issue more fully through a look at the history of seat belt laws leading up to the Department of Transportation's decision of July 1984 that kindled the current furor. Then, an exploration is made of the technical background for the debate, including studies of usage rates, explanations of those statistics, and evidence of the life-saving efficacy of seat belts. The motorcycle helmet debate provides a foundation for laying out the opposing positions and the underlying legal issues. Finally, a discussion of the rights involved and the legal theories that resolve conflicts involving those rights in the highway safety context will provide a foundation for reflections on the implications of the mandatory seat belt use laws, and possibly an opinion about their constitutionality.

BACKGROUND

The current push for mandatory seat belt laws arises from the latest turn in the saga of the passive restraint strategy that the NHTSA decided to pursue more than a decade ago. Perhaps at the behest of American automobile producers, who felt that passive restraints (usually meaning airbags or automatic seat belts) would be too costly, it was decided that the same desirable goal of reducing motor vehicle accident fatalities could be achieved by simply ensuring that people used their already extant belts. The rule announced by Secretary of Transportation Elizabeth Dole on behalf of the NHTSA in July 1984 stated that the passive restraint requirement would be rescinded if states containing two-thirds of the United States' population passed mandatory seat belt use laws by April 11, 1989. This deadline is accompanied by a gradual phasing in of passive restraints on autos sold in the United States, with such equipment being required on 10% of new cars sold after September 1, 1986; 25% after September 1987; 40% after September 1988; and 100% after September 1989, if the April 1, 1989, goal is not achieved. (1)

The response to this incentive has been great. As of February 1985, 4 states had passed a mandatory use law, and 36 other state legislatures were considering similar bills. An interesting parallel is that by this time all 50 states had mandatory child restraint device (CRD) laws, although the CRD laws were not part of any federal incentive program. (2) There are conditions stipulated in the federal ruling: laws

must cover at least the driver and all front seat passengers, no exemptions from the use requirement may be allowed for any reason other than a legitimate medical excuse, the law must provide for some sort of enforcement mechanism and specify a fine of at least $25, and the laws must also abridge whatever status the seat belt defense has in that jurisdiction, providing that nonuse may be considered as contributory negligence. For its part, the federal government is planning to mount a large publicity campaign, funded partly from public coffers and partly by private contributions, to support belt laws. Congress has yet to approve the government's share of that expense, although the auto industry quickly assembled its own political action committee (PAC), Traffic Safety Now. The private sector's motives seem less than altruistic, however, since rescission of the passive restraint requirement will hold down new car costs and save expensive design modifications. Auto industry complaints played a key role in prompting the delays and controversy over passive restraints that eventually led to this decision by Secretary Dole.

A number of suits, filed primarily by insurance companies and public interest groups, are waiting to challenge this federal pressure on the states. While federalism questions abound, so too does the wisdom of selecting this means to achieve the desired end of saving lives. Mandatory belt use may very well be hard to enforce, with the detection of non-wearers requiring being able to see into the vehicle's interior. Should automatic belt systems be installed, they may well be circumvented, as was shown by the experiment with ignition interlocks in the early 1970s. (Ignition interlocks consisted of sensors placed in the front seats that prevented the car from starting unless seat belts were in use in each front seat that was occupied. Often by simply unplugging the readily accessible wires under the seat, the system could easily be defeated.) The analysis of the rationality of the means chosen will be addressed later in this report.

These challenges may well be mooted by noncompliance of the states with the federal stipulations for mandatory belt use laws, however. Of the bills passed or proposed in 1985, some departures from those conditions are apparent. Most comply by covering all positions in the front seat, and about a third extend the law's application to rear seat passengers. Fines are generally in the $20 to $25 range, and though several versions state no amount, it may be tied to the statutory classification of the offense. Some limit enforcement of the mandatory belt law to secondary enforcement, meaning the person must have been stopped for some other offense first. The largest deviation from federal guidelines occurs in the civil liability area, where only 18 states allow nonuse to be considered as contributory negligence, while 10 specifically forbid its consideration, and 15 leave it to be settled by case law. All told, the National Safety Council estimates that only a third of these bills satisfy federal requirements. Resistance to the

perceived federal blackmail is also evident in the Michigan law adopted; it will be rescinded should the required two-thirds coverage not be attained and the passive restraint requirements be reinstated.(3)

Several unusual consequences have followed the Dole decision. First, there is the participation of the auto industry in lobbying for the mandatory use laws, and it sometimes casts consumer and highway safety advocates in the paradoxical role of opposing the laws. This result occurs because the goal of coverage of two-thirds of the American populace with mandatory use laws could be accomplished by the passage of such laws in as few as 16 states.(4) That would leave many miles of roadway in large, sparsely populated states beyond coverage. Another explanation for the dissatisfaction of public interest groups is the dilemma resulting from the federal ruling: if seat belt laws are pushed, then the passive restraint standard is rescinded, and some people are left uncovered. Further, seat belt laws may be easily broken. Also, some safety experts feel that belts and airbags in combination provide the best occupant protection. The other horn of the dilemma is that if the choice ends up being passive restraints, then there is a long wait for full coverage -- at least until the majority of cars on the road are of post-1989 manufacture.(5) Finally, even this avenue may not lead to the desired result, since many auto manufacturers have indicated an intention to install automatic seat belts as passive restraints rather than the more expensive airbags. These belt systems may be easily detached.(6) It certainly is not clear which of the two alternatives is the most desirable or most effective.

The Dole decision is the primary impetus for the interest in seat belt laws at this time. But other factors also contribute to its pertinence; among them is the renewed interest in highway safety which is following on the coattails of the nationwide effort to curtail drunken driving. Also revealing is the increased usage Americans are making of their automobiles during this era of good feelings, a recovering economy, and stable if not lower gas prices. As is perhaps consistent with expectations, the drop in highway fatalities of recent memory has been reversed and is on the way back up. More disturbing, though, is the fact that even after correcting the figures for increased usage, the number of deaths per mile driven is also on the rise.(7)

HISTORY OF OCCUPANT RESTRAINT REGULATION

Seat belts were originally offered on automobiles as optional safety equipment in the 1950s. In the early 1960s, several states passed laws requiring cars sold within their boundaries to have either belts or anchors for belts installed. In 1964, to accommodate this

trend in state laws, American automakers started putting lap belts in the front seats of all cars.(8) Congress passed the National Traffic and Motor Vehicle Safety Act in 1966, one of the provisions of which created the NHTSA. In 1967, this new agency promulgated Federal Motor Vehicle Safety Standard 208, which required lap and shoulder belts (a more effective combination) on all new cars. By 1969, after several years of experience with many of the cars on the road equipped with seat belts, an awareness of low usage rates prompted discussions about requiring passive restraints, where no initiative would be required of the automobile occupants.(9) At this time, the possibility of mandatory seat belt use laws was raised but rejected as being unpalatable.(10) The passive restraint approach seemed firmly established.

Several versions of Standard 208 were promulgated in 1970, 1971, and again in 1972. The last of those variations required complete passive restraining protection for all front seat occupants in vehicles manufactured after August 1975.(11) Chrysler challenged the ability of the NHTSA to issue such a requirement, but the Unites States Court of Appeals for the Sixth Circuit vindicated the agency's authority and the essential rationality of such a rule.(12) In the interim, the federal regulations allowed compliance by use of the ignition interlock system, and American auto manufacturers resorted to this method of increasing seat belt use. Technical glitches earned interlocks the scorn of drivers, and in 1974 Congress prohibited the NHTSA from requiring interlocks or continuous buzzers. It also retained a legislative veto over any system that involved any device other than manual seat belts.(13) Standard 208 and passive restraints were still very much alive at the NHTSA with an analysis of testing methods required on remand from the court in the Chrysler case, but this restriction by Congress suggested its preference for some role for the usual manual belts in the ultimate solution of the highway safety issue.

The implementation of Standard 208 was postponed, then reinstituted in 1977 with an effective data of 1981. This time it was attacked in the court by consumer advocates for the irrationality they perceived in the delay, and the NHTSA's authority was again vindicated on both the question of timing and the ability to require passive restraints.(14) In 1981, with the compliance date on Standard 208 imminent, the Reagan administration, citing changed economic conditions and difficulties in the domestic automobile industry, again postponed the rule for a year. Within a few months, it rescinded the passive restraint requirement. This time the rescission was challenged by the State Farm Insurance Company, and in a case that went to the Supreme Court, the NHTSA lost. The Court said the rescission must meet the same criteria of legitimacy as promulgation, and turned the tables on the agency by upholding a decision that the NHTSA had failed to show its previous justifications were no longer persuasive.(15) After this reversal, the NHTSA sought a way to satisfy the espoused goal of reducing highway fatalities yet also

placate the complaining automakers. Its answer was the Dole announcement of July 1984, and the pressure for mandatory belt use laws.

SEAT BELT USAGE RATES

Seat belt usage rates and patterns have been extensively studied. Certain trends are discernible; among them is a comparatively higher usage rate in newer cars, in smaller compacts, subcompacts, and imported autos; highway drivers tend to use their belts more than urban travelers, women tend to use belts more than men, and usage is greatest in the over-50 age category and lowest in the under-25 bracket. Some data even suggest that bad weather spurs drivers to buckle up. Though these trends are interesting and even seem to have an innate plausibility because they are consistent with expectations, the most telling statistics are the overall usage rates. Surveys done in different parts of the country consistently put the net seat belt wearer rate in the range of 10% to 20% of all observed drivers. Some more recent studies place that rate at 15% to 18%. The trends in usage rates seem less significant, then, since they still reflect an overall low use frequency; the baseline for determining those trends was itself a small percentage of all drivers.

There are several factors which create notable departures from this pattern of nonuse in the substantial majority of the driving public. In states with mandatory child restraint device (CRD) laws, CRD usage rates varied from 29% pre-enaction of the statute to 39% post-enaction. Virginia reported an even more dramatic change, from 10.3% before the law to 64.6% afterwards. In states without mandatory motorcycle helmet use laws, the usage rates are around 49%, while states with such laws report 92% use. Compulsory laws, where tried thus far, have proven effective in raising safety device use.

Several interactions between different types of vehicle occupants and usage rates are noteworthy. In particular, having a child who requires a CRD in the car tends to influence the behavior of the driver and other passengers positively, and more of them wear belts. Also, the buckling practice of the driver tends to induce other occupants to use their belts; however, this is much more true for right front passengers than for rear seat passengers.(16) Both the person most likely to be "in charge" -- the driver -- and the person most dependent on others -- a small child -- seem to be able to increase the awareness and use of others.

Nonvoluntary devices which induce use of seat belts for adults have produced positive increases in usage rates in their limited applications

thus far. A few automobiles currently available have passive restraints already installed in the form of automatic seat belt systems. Usage of these is reported to be 85%.(17) During the years that interlock systems were in effect, the usage rate in those models was also reported at above 50%. Several European countries, Australia, and several Canadian provinces have mandatory seat belt use laws, and compliance rates are reported at anywhere from 62% to 92%, with many of the European countries falling in the 70% to 90% range. These usage laws reportedly enjoy popular support as well.(18)

The Canadian experience may be more useful for drawing lessons to be applied in the United States if for no other reason than it is the closest neighbor physically and perhaps culturally. When mandatory seat belt use laws were first passed in Canada, usage went from 21% to 61%. However, that latter percentage eventually dropped off somewhat. The reason for this, the Canadians concluded, was the less enthusiastic enforcement effort that occurred after a while. Not only were violators somewhat tough to spot, but also police were somewhat reluctant to enforce the law against people who were basically law-abiding citizens. The resolution of this problem was perhaps found in the practice of enforcing the seat belt law in conjunction with other offenses. Anecdotally, Puerto Rico also experimented with a mandatory seat belt law with abysmal results. Usage went from a paltry 5% or less to only 10%. Yet there was virtually no enforcement of that new law. Both the Puerto Rican and Canadian experience suggest that enforcement is an integral part of the effectiveness of mandatory seat belt use laws.(19)

Another recommendation of the Canadians is that a mandatory law needs a publicity campaign to promote its acceptance. People not only had to be educated about the benefits of belts, but also had to be notified of the law's provisions.(20) The Dole decision apparently subscribes to this because it proposes a $40 million publicity effort as part of the seat belt law option.

The NHTSA has been aware of developments in other countries and has combined those experiences with the few efforts made in the United States in making some suggestions about what the American endeavor would require. As recently as 1981, a NHTSA report on methods of increasing use started with the premise that compulsion was unacceptable. Its basis for this assumption was the ignition interlock fiasco. Though interlocks did raise use -- perhaps significantly -- they were resisted. The objections may have been caused by technical defects in the interlock systems or they may have been resisted by a citizenry ever vigilant of infringements on its rights, or some combination of both. Some of the failure was ascribed to a lack of public education.

While most commentators say publicity efforts are indispensable, media blitzes have been attacked as being totally ineffective or being

so minimally effective as not to be worth the cost. Public education has been tried before, and it is apparent from current usage rates that its contribution to overall use is inadequate. The NHTSA has even gone so far as to rebut the Canadian compulsion plus publicity formula, saying that compulsion in the form of ignition interlocks and publicity campaigns in coordination were inadequate. Yet it would not deny their place as essential components in a more comprehensive scheme. In fact, though public education seems marginally useful, it is nevertheless indispensable. None of the European countries were willing to ram mandatory belt laws down the throats of their populations without some explanation. To this end, the NHTSA recommends educating people to the risks of being in an accident, the consequences of such an accident, and the net economic and insurance costs of accidents. The grand scheme the NHTSA proposed in 1981 incorporated this, plus elements of compulsion for federal employees, CRDs, and perhaps employees of private companies while engaged in job-related driving. The new twist to this plan was the requirement of obligatory use in certain, perhaps more susceptible, segments of society to serve as an example for the rest of the populace.(21)

These pre-1984 contrivances were thought of as means of avoiding compulsory use laws. Yet that does not preclude considering their use in a compulsory setting. The NHTSA report that devised these alternatives considered mandatory use laws, and discounted them not only for ideological reasons but also for practical ones. It cited the problems of enforcement as limiting the effectiveness of seat belt use laws. It was the failure of all the behavior modification approaches tried that led the NHTSA to endorse passive restraint systems in the first place.(22) Now that compulsory laws are the chosen strategy, those behavior modification experiences cannot be totally ignored. After all, mandatory use is perhaps the ultimate form of influencing behavior. One wonders whether public knowledge and attitudes are not important even if passive restraints become the final solution. Both belt laws and automatic systems are nonvoluntary, and the European and Canadian experiences suggested that even imposed solutions work better if the general populace knows how the laws work and why they were passed. Since enforcement is a problem in applying mandatory use laws, and detachment is a problem in automatic belt systems, it seems that for all its previous failings, public education remains an important part of any solution to the lackadaisical attitude most people have to occupant restraints. Also, for the sake of assuaging public apprehension over any imposition on freedom, its acceptance of the wisdom of laws and regulations is vital.

Attitudes Towards Seat Belts: Reasons for Nonuse

Attitudes and perceptions seem to have some effect on usage rates, as is borne out by the plausibility of the detected trends in belt usage. It seems logical, or at least retrospectively consistent with expectations, that small cars, sports cars, parents of small children, and senior citizens would be indicia of higher usage rates. This is also true in the observation that highway drivers tend to wear belts more; after all, aren't long trips at sustained high speeds more dangerous? A concise answer to that question is, "No." The statistics belie that common belief. Seventy-five percent of all accidents occur within 25 miles of home, and at speeds below 40 miles per hour. A slightly higher 80% of deaths and injuries from automobile accidents occur within the same radius of home and within the same speed. Another, more indirect inference on the role of education in attitudes about belt use arises from a study that showed that 73% of physicians use their belts.(23) Whether this is due to limitations of that study (it was self-reported usage) or to the proclivity of doctors to be safety conscious, it is plausible to believe that there is some contribution to this result from the ability and regularity with which doctors read scientific studies. It is also plausible that many physicians have at some point in their careers come into contact with someone injured in an automobile accident. For diagnostic purposes, a common question asked of such patients is, "Were belts in use at the time of the accident?" Perceptions, both accurate and inaccurate, thus seem strong indicators of usage habits.

Profiles of "typical" seat belt users and nonusers have been assembled from many of the usage studies. They reveal that persons likely to buckle up also tend to have high educational attainments, are safety-minded, conservative in their driving habits generally, believe in the effectiveness of belts, and have valid perceptions of the risks of being in an accident and being injured. Nonusers, on the other hand, are willing to take risks, are aggressive drivers, and do not take care of themselves in many aspects of their health. In summation, one report concluded that "personality" was one of the strongest indexes of belt use.(24) These admittedly are gross generalizations, and the fact that 80% to 90% of the population do not use belts undermines the likelihood that the profile will accurately predict the belt use of any particular individual. Therefore, the usefulness of these studies may be in suggesting directions for campaigns aimed at the population as a whole.

Numerous subjective reasons have been given for not wearing belts. In one study, the single greatest excuse for failure to use available belts was that they were uncomfortable. Auto manufacturers have been aware of this complaint for some years, and have tried to make modifications that would reduce that objection. One such change was the development of the inertial reel, the device that allows a belted person to

move about, lean forward to adjust a dashboard control or retrieve an item from the floor without having to unbuckle the belt. This free play does not affect the safety of the system since the inertial device will lock up on sudden movements such as would occur in accidents. Yet many people perceive this free play as indicating that the belt is ineffective. Here again there is a divergence of perceptions from reality. Interestingly, the second most common excuse for nonuse relates directly to the phenomenon of increased belt use in highway driving discussed above. This explanation claims that belts are "inappropriate" for short trips. The previously cited statistics address the accuracy of that contention.

The third most common explanation for nonuse is that the person simply forgets to buckle up. This is despite the fact that 5-second dashboard warning lights and 5-second buzzers or bells are still present in many cars. If this phenomenon results from unconscious ignorance of the belts and warnings, it then becomes an argument for mandatory use laws since this excuse involves little, if any, active decision making and volition by the person. It is hoped these people will be the least likely to resist compulsion, and be the most affected by it. Conversely, their lackadaisical attitude may be the least affected by education.

The remaining 20% of the population's excuses for nonuse are in a sense the most strongly felt and will perhaps be the hardest to change. These people argue that seat belts are unnecessary and may actually increase the risk of harm through entrapment in a wrecked, burning, or submerged vehicle. The statistical support for these beliefs will be discussed below.(25)

First, it is possible to look at these excuses in a manner that combines the subjective reasons given and the more general personality profiles. Those saying belts are uncomfortable, inconvenient, inappropriate for short trips, or unnecessary, comprised 80% of the respondents in the NHTSA survey. When asked to further justify their excuses, those who did not use belts pointed to the relatively low chance of any particular driver being in a serious accident. Not only do many of these people simply feel they'll never have a need for belts, but also that attitude is compounded by the belief of many in this group that they are in fact good drivers and somehow able to beat those already low odds. So denial and fatalism play a significant role, and often translate into an affronted assertion that corrective measures should be directed at someone else. In short, many people simply feel that they are not part of the problem, nor that they ever will be. In a study of the attitudes of state legislators regarding the seat belt issue, these beliefs were found to be paralleled. (These are truly representative bodies, no doubt.) Proponents of seat belt measures in general wear belts and think they're effective. Opponents do not wear them and think they're ineffective. With this sort of self-selection occurring among

those responsible for lawmaking, it seems that remedial measures directed at the general public will also have to be directed intensively at legislators.(26)

Generalizing from all the perspectives on why seat belts are not worn does not suggest any clear, single way of changing public attitudes. One commentator observed that the decision not to wear is often not a conscious choice, whether it be from forgetfulness, discomfort, or inconvenience. Perhaps this is an exaggeration since excuses based on discomfort or inconvenience involve some minimal rationalization or cost/benefit determination on the part of the individual. But it may be properly described as a casual decision at best. For these people, perhaps education really is the best remedy. Informing them about the true causes of accidents, the role of driver skill in accident avoidance and how to assess their real level of competence, and the actual chances of being in an accident and the likelihood of dire consequences may be effective in causing them to make a more reasoned decision.

But what about those who do not respond to education? There is reason to believe that forgetful people will not be greatly affected by such measures. Further, there may be some who still, after knowing the statistics, decide to take those chances. For these people, compulsion may be the only effective method. Relating use profiles to accident involvement, studies have found that those who are the most likely to cause collisions are also those least likely to use belts. While mandatory use laws may reach some of these types of people, indications are that a significant hard-core segment will not be reached by any means. Within the classification of those unlikely to use belts is a subcategory of risk takers and regulation resistors, if not also habitual lawbreakers. For instance, nonusers involved in automobile accidents were more likely than users to have been drinking. The Canadian experience bore this out somewhat; when deaths didn't drop as much as extrapolations from before- and after-enactment usage rates predicted, it was found that the lower risk, law abiding people were the most likely to comply with the statute.(27) It is for this reason that vigorous enforcement efforts are the most likely to be effective.

Though the preceding discussion has attempted to single out discrete positions on seat belt usage, in fact people often combine several in their excuses for nonuse. A favorite fallback is that seat belts may actually exacerbate the risk of harm. One survey showed that 48.4% of the sample thought seat belts would actually cause injuries. The scenarios envisaged by these people include situations where being thrown out of a crashing vehicle or being able to jump clear of it would be the difference between life and death, or where being pinned in a burning or submerged car by a seat belt would be harmful. The last two hypotheticals are perhaps the more common; whenever they occur they receive dramatic media coverage. Television would have one believe that

nearly every wrecked automobile soon explodes in flames. In fact, accidents involving fires or submersion together account for less than 0.5% of all motor vehicle accidents. Chances of being in one of these kinds of events is, therefore, very low. Further, studies of fatal accidents have shown that submersion deaths account for only 1.5% of all motor vehicle fatalities and death in accidents involving fire (and this may include people whose fatal injury was something other than the fire itself) were only 3.6% of all fatalities. In this study, the average seat belt use rate for all of the fatally injured people was 2.5%. Yet only 1.7% of all the submersion fatalities were belted, while only 2.0% of the fatalities resulting from fire were using belts. In short, belted individuals stood a better chance of living through fires and submersions than through other kinds of accidents. This is attributed to the benefit of belts in helping occupants remain conscious through the collision; thus enabling them to rescue themselves.(28) This is dramatically in opposition to popular belief. So here two common attitudes prove unfounded.

EFFECTIVENESS OF SEAT BELTS IN PREVENTING DEATH AND INJURY

While the previous discussion demonstrated the benefits of belts for a very dramatic and visible but very infrequent kind of accident, its main impact is on public perceptions rather than the overall survival rate of persons in automobile accidents. While the wisdom of having the ability to get clear has been undercut for those unusual situations, how does it bear on the 99.5% of accidents which are of other types? One way of addressing that question is to look at the mechanisms through which injuries are sustained in vehicle accidents. Quite simply, ejection from the crashing vehicle is a significant cause of traffic-related deaths, accounting for 22% of all fatalities. Belts are extremely effective in keeping people inside the crashing car, and, therefore, the best way to prevent ejection. Expressed another way, persons thrown "clear" of an auto run a 25 to 40 times greater risk of being killed than do those who stay inside the car. A significant portion of those ejected are run over by their own vehicles. Though there may be a difference between being "thrown clear" and "jumping clear," many experts doubt the ability of most people to anticipate a collision in sufficient time to make a leap. And even a voluntary jumper would be subject to the same hazards and forces as someone thrown out. Of all the ejection fatalities studied, not one person who had stayed inside the wrecked vehicle had been killed.(29) Though people are killed by being crushed within a wrecked auto, they at least have the advantage of having the automobile frame absorb a significant amount of the impact. Imagine having only one's skeleton to bear all that force. In sum, the jumping clear theory is a myth.

While prevention of ejection is a significant contribution of seat belts to occupant survival, other mechanisms of injury are also offset by belt use. Perhaps foremost among these is the so-called "second collision" which occurs when the body of the vehicle has stopped but the inertia of the occupant's body, still traveling at the vehicle's original speed, carries it into the now-stopped vehicle frame, dashboard, or windows. These second collisions account for half of all automobile injuries. Being thrown around within the crashing car is indeed a significant source of injury, not only from striking the unyielding interior, but also from being struck by other, unrestrained passengers. In fact, one study claims that 22% of all automobile injuries are worsened by person-to-person collisions. While engineers are constantly modifying automobile interiors to improve their crashworthiness, or ability to stop hurling human bodies without maiming or killing them, the fact remains that seat belts are still the most effective means of preventing injury. The belted occupant in a wrecking automobile is held in place and decelerates with the automobile -- and automobile bodies have many more ways of dissipating the force of an impact than does the human body. Slowing down with the vehicle is much more gradual than otherwise, and belts have the added advantage of distributing the force of that still-rapid deceleration over a much wider area of the human body. This point is poignantly made by a study of 28,000 automobile accidents in Sweden. In all those wrecks, none of the belted occupants were killed in any accident below 60 miles per hour. On the other hand, in some of the accidents that occurred at speeds of less than 20 miles per hour, unbelted occupants were killed.(30)

Another benefit of wearing belts is that they may actually prevent some accidents or allow the driver to resume enough control to reduce their potential severity. This is because belts keep the driver behind the wheel and in a position of control despite sudden maneuvers or the jarring of a collision. This benefit may also accrue from keeping other belted passengers away from the driver during emergency driving situations.(31)

There are, in fact, some accidents so violent that no form of occupant restraint will prevent injury or death to occupants. But evaluations of restraint effectiveness must aggregate results to give net figures. In fact, were it possible to separate out those inescapably fatal accidents, the probable result would be to increase the statistics for the effectiveness of seat belts in enhancing survivability. Further, the very need for restraints is predicated on these same probabilities of accident occurrence and the tremendous potential benefits which offset the chance of not being in an accident. Nevertheless, fairness dictates a discussion of some of the limitations of seat belts and other restraints.

A hierarchy of risks and effectiveness can be deduced from statistical analyses. As to occupant positions, the most dangerous is the right front passenger or "shotgun" position, followed by the driver, and then rear seat passengers. Belts are most effective in decreasing injuries in impacts from the side, then in accidents which result in vehicle rollovers, then front impacts, and least of all in rear end collisions. Airbags have been described as most effective in frontal crashes, which have a markedly higher fatality rate, but ineffective in side, rear, and rollover accidents. Because of these specific effects on specific types of impacts, the NHTSA at one time said that a combination of seat belts and airbags would be the most effective occupant restraint system.(32)

Some concern arose over the phenomenon of unique seat belt injuries which was raised in the medical literature in the late 1960s. Some types of traumatic injuries were identified as being distinctively related to seat belt use, but many of these problems were attributed to improper positioning and snugness of belts. Further, nearly every commentator was quick to point out that, overall, seat belts were obviously beneficial. While unique injuries occurred, they would likely have been much more severe had the injured person not had belts on. These seat belt injuries were simply different in kind than others sustained in accidents, and overall of a less severe nature. Seat belts were even found to be more beneficial than not during pregnancy, where fear of sustaining the force of a collision on a belted mother's abdomen raised concerns.(33) It is only comprehensive pictures such as this that can prove that problems with belts are amply offset by benefits.

Predicting net reductions in highway fatalities and injuries is difficult because of the variety of statistical analyses done. Many early studies looked simply at fatality statistics. One Virginia study found that only 8.2% of the persons fatally injured were wearing belts. Correlating this to the general usage rate, which at the time was 24%, the study concluded that belted occupants were indeed underrepresented in the death category. Even cautioning that there is an inherent bias in this analysis since those who do not wear belts tend to be accident-prone, it still concluded that seat belts reduce the incidence of fatal injuries. Later analyses in the state confirmed those conclusions.

More general studies tried to categorize the savings to human lives by looking at fatalities and injuries. A 1969 study found that the odds of being killed were 100% greater for unbelted individuals, chances of serious injury were 70% greater, and chances of less severe injuries were 40% greater. A 1976 NHTSA study found far greater benefits from belt use; it concluded nonusers were 333% times as likely to be killed than users (Virginia studies had placed that factor at 350%), more likely to sustain serious injuries, and 200% more likely to suffer

moderate injuries. Experiences in other countries where mandatory use laws are in effect simply looked at fatality and injury reductions before and after enactment of their laws. These nations reported 15% to 46% fewer deaths and 17% to 46% fewer injuries, depending on the country. Admittedly all of these studies are subject to several other variables, but the uniform conclusion is that seat belts save lives. Current summaries tend to simplify this maze of numbers to say that seat belts reduce chances of death or injury by 50%.(34) Even that statistic is a persuasive argument for the efficacy of seat belts.

One more manipulation of the statistics may be illustrative. Rather than looking at the odds, this perspective looks at net savings -- in terms of lives, injuries, and dollars. A preliminary metaphor is that approximately 50,000 people a year die in automobile accidents in the United States; almost as many as the total number of soldiers killed for the entire duration of either the Korean War or the Vietnam war. The NHTSA estimates that 100% seat belt usage would save 17,000 lives a year and annually reduce the severity of 4 million injuries. Other commentators have put the savings for a less ambitious 70% usage rate at 10,000 lives a year, and a savings of 2 million disabling injuries. In addition, the economic savings from reducing highway casualties may be considerable. In 1978, it was estimated that the net economic loss to the economy was $34.2 billion. This included lost wages, medical bills, rehabilitation costs, support for dependent families, and somewhat more speculative losses in terms of lost productivity and contribution to the economy. But this estimate did not include the cost of government services such as police, fire, or ambulances. The more readily measurable costs of hospital bills and family welfare support have been used to project a savings of $6.5 billion if 100% usage was realized, and $5.2 billion if only 80% usage was achieved. Though the multiplier of lost productivity and reductions in revenue from disabled workers is highly speculative, it is probably a real phenomenon and may raise the savings figures somewhat.(35) Regardless of the incongruence of the figures, savings of life, limb, and expense are indeed possible with any increase in the usage of seat belts.

SEAT BELT USE AND CIVIL LIABILITY: THE SEAT BELT DEFENSE

The past 15 years have seen the emergence of a new defensive strategy in personal injury litigation arising from automobile accidents. This tactic is known as the seat belt defense and it is used to void or lessen the burden on the defendant by arguing that the plaintiff's nonuse of seat belts detracts from the worthiness of his suit. In contributory negligence jurisdictions, it may act as a complete bar to recovery. In comparative negligence states, or if the

defense is raised under the guise of mitigation of damages, some pro rata reduction in the award or other apportionment is sought. The status of the seat belt defense nationwide is ambiguous; some jurisdictions allow it, a majority still reject it, but its acceptance is growing.(36)

The relevance of a discussion of the seat belt defense for mandatory use laws is that the conditions described by Secretary Dole's July 1984 decision tie the issue of negligence to the compulsory use laws. To count in the Department of Transportation's formula, states with mandatory seat belt use laws cannot bar the seat belt defense. Yet the status of the seat belt defense has been tied by several courts to the public opinion about whether belts should be worn. One court has said the the common law duty to wear belts or not depends on the prevailing attitude, even if that public perception is wrong.(37) In another, often-cited case rejecting the seat belt defense, the court states that the utility of belts must be widely accepted before courts will consider failure to buckle up as a negligent act. This opinion went on to note that most motorists complete their trips safely, and expressed a reluctance to impose a duty because of all the variables that affect the wisdom of such a decision. Even if belts are by and large beneficial, the court asked, what if this one time they were harmful? The court was unwilling to find any duty to wear belts given that occasional anomaly, no matter how unlikely.(38) At least one court which rested on this precedent took that occasional anomaly to mean in particular situations where fire, immersion, or some other threat make "bailing out" of a wrecked vehicle desirable. This court then returned to the argument that no duty should exist if the vast majority of the motoring public did not wear belts. Many courts, it seems, are content with relying on public perceptions of seat belts to refuse to impose any duty to wear them. Whatever the wisdom or rationality of this course, it is clearly at odds with the whole motivation for the federal intervention in this area. The federal regulations realize that public attitudes will change only with prodding; yet the inertia of courts like those mentioned above pulls in the opposite direction. By mentioning the civil liability issue in the 1984 ruling, the government recognized this.

Legislatures have the ability to abrogate common law duties and create new rules. This device might well be utilized in resolving the chaos in the seat belt defense area, and the pressure applied by the 1984 decision on Standard 208 may actually unwittingly play a role in this resolution. In general, in the absence of a statutory duty to wear belts, courts will not find a common law duty to do so. When laws requiring seat belts to be installed in cars became more common, courts were usually still unwilling to infer a duty to wear belts from that indirect legislative mandate. In the absence of a law clearly requiring use, courts simply refused to create a negligence rule. Due to the

unpredictability of accidents, courts in dicta commented that any duty must be absolute. The creation of a uniform rule would avoid inconsistencies, and such a policy decision must come from the legislature. Many courts suggested a willingness to create such a duty to wear belts based on a statutory mandate. Some seem to suggest that a presumption affecting civil liability would flow naturally from a mandatory use law. Such a phenomenon has occurred in response to mandatory motorcycle helmet use laws in some states.(39)

In light of the approach taken by most courts, no court has yet taken judicial notice of the efficacy of seat belts. Yet many in dicta have noted the value of belts in saving lives and reducing injuries. This occurs, as expected, in cases recognizing the validity of the seat belt defense,(40) but surprisingly, it may also be found in cases where the court has stubbornly refused to admit the defense.(41)

One commentator has suggested that adopting the seat belt defense and thereby signaling a common law duty to wear belts makes good economic sense. Using a cost/benefit analysis, he finds the individual occupant to be by far the person who can take the best precautions with the least effort.(42) This is consistent with the position taken by advocates of mandatory laws; belts are minimally intrusive and require little effort to engage. While the law and economics perspective has yet to take the courts by storm, and while public opinion bears more weight than technical data, the fate of the seat belt defense across the country may rest more immediately on the response of state legislatures to the impetus for mandatory belt laws, and the signal that would send to courts concerning civil liability.

THE MOTORCYCLE HELMET DEBATE

A contest about the propriety of highway safety measures strikingly similar to the issues raised by mandatory seat belt laws occurred in the late 1960s and early 1970s over mandatory motorcycle helmet use laws. These laws gained momentum in 1966 from congressional legislation that tied highway safety funds to passage of helmet laws. The response by the state legislatures was thorough; eventually 49 states had some form of helmet law on the books. These statutes generated a public debate that spawned many court cases, and the positions taken in that issue provide fertile ground for analyzing the ramifications of the proposed seat belt laws.

Arguments Against Mandatory Laws

Many motorcycle riders resented the helmet laws, and quite a few challenged these statutes in court. Some objections contested the underlying assumption that helmets were more safe than no helmets. These arguments ran along the lines that the limitations on the rider's vision and hearing made him less able to perceive and respond to hazards on the road. These contentions were infrequently used, however, perhaps because of the evidence against them.(43) They do, however, parallel a trend discerned in the seat belt debate, where opponents of mandatory use laws tend to think they are ineffective; the element of self-selection seems inescapable.

Opponents of mandatory laws also point to the difficulties of enforcing regulations of a so thoroughly pervasive activity. Many "free riders" are bound to slip by the limited surveillance law enforcement officials are able to devote to the offense. Though violators of motorcycle helmet laws are much more visible than unbelted car occupants, the symbolic effect of all scofflaws is to engender disrespect for the law.(44) Some feel that the spillover effect of this attitude to other areas undermines the foundations of our society.

Perhaps the most common objection to the motorcycle helmet laws started with the assertion that helmets were effective in protecting the rider only. No public hazard existed from the unhelmeted bikers which justified the intervention of the state's police power, it was contended. Since the effect of helmet use or nonuse was limited to the individual making the choice whether or not to wear it, this argument asserted that no public interest was aroused. The presumption was that regulation must be justified by some underlying public need, and none can be found for self-protective safety devices. This lack of a more widespread impact meant that, in this view, helmet laws bore no relation to the legitimate interest of the state in protecting public health and welfare. Since the statutes did not serve an acceptable purpose, they were thus invalid exercises of the police power. The availability of less restrictive alternatives, such as requiring manufacturers to install other safety equipment (which could be done easily using the commerce power) was seen to undermine the necessity of employing this end to promote public safety. This last argument compromises the denial of any relationship between helmets and public safety and instead pursues the route of saying that the relationship is not substantial enough to justify the means chosen. Nevertheless, it is consistent with the theme that protecting an individual for his own sake is simply not legitimate.(45)

The consequence of the perceived lack of a substantial relationship between helmet laws and the public interest or the lack of any public interest in protecting the individual at all is that regulation thus

infringes on some protected individual right. Failing a legitimate state end, the 9th Amendment of the United States Constitution reserves the right of privacy inherent in the individual. Though not enumerated, this implicit right or zone of privacy includes the right to be left alone and free from irrational state interference. This includes the right to wear what you want -- including helmets or no helmets -- as long as it is not indecent. Besides the supposed violation of the implied right of privacy, helmet law opponents said that the individual's liberty right was undercut by the statutes. This right includes freedom of choice and the power to be the master of one's own destiny. Even though the purpose may be laudable, this liberty cannot be impinged on for personal safety. Even a supposedly admirable motivation may constitute an unwarranted deprivation of freedom. Privacy and liberty are fundamental rights, this argument contends, and require substantial justification for any limitation on them. Public opinion polls about mandatory seat belt laws suggest public resistance by many who feel such laws similarly violate their "rights."(46)

The constitutional objections center on the infringements on liberty which opponents of helmet laws claim are the foremost values of American society and government. Their arguments find philosophical backing in the maximization of individual liberty stressed by John Stuart Mill. Each person's rights, according to Mill, are limited only when they conflict with another's, and helmet law opponents claim no such dilemma arises from the presence of unprotected motorcyclists on the streets and highways. Social contract theory even contributes something in the form of the observation that the state exists for the people, and not vice versa. Any overriding interest in public welfare must thus be clearly demonstrated, and none is present here, it is claimed. In short, when it comes to the decision whether or not to use a motorcycle helmet, the individual should determine his own best interest.(47)

As a postscript, it is interesting to note that when the federal pressure supporting helmet use laws was withdrawn in 1976, several states repealed their laws, citing freedom of choice issues as the deciding factor.(48)

Arguments for Mandatory Laws

The tenor of much of the opposition to helmet laws admitted that a great enough public interest might justify some infringement of individual rights; but the protection of motorcyclists simply did not amount to such a strong public interest. Much of the support for these statutes is directed at refuting that very assumption. There are indeed social consequences of the failure to use helmets, they say. It thus

falls within the exceptions granted by Mill's philosophy, summed in Latin: "Sic utere tuo et alienum non laedas." ("So use your own that you do not injure that of another.") Direct benefits accrue to other members of the motoring public almost immediately from the use of helmets.

The theory offered to support this thesis is called the "missile hazard" theory. It proposes that the unprotected motorcyclist is vulnerable to many roadside hazards which the automobile driver is shielded from by the car body and windshield. Among these dangers are flying rocks, bugs, and other particles which might easily strike the biker, causing him to lose control. A subsidiary argument recognizes that the mere two wheels on which a motorcycle rides makes it inherently less stable on the road than a four-wheeled vehicle, and therefore more likely to go out of control on loose gravel, in bad weather, or during emergency avoidance maneuvers. Whether from one of these causes or from a "missile," an out-of-control cyclist is a threat to everyone else on the highway. Therefore, helmet laws are a reasonable means of serving a legitimate public end, the safety of all those who travel on the streets and highways. In fact, the reality of the hazard may be great enough to qualify regulations as having a "substantial" relation to the public welfare. This premise of a bona fide public interest underlies almost all the rationales used to justify helmet use laws, and some reference to a legitimate public need to regulate the activity is made in at least 30 jurisdictions that have considered the issue and upheld helmet laws.(49)

A parallel development of the public interest rationale addresses when a state may infringe the privacy of the individual which helmet law opponents claim is violated. This argument says that since the activity in question occurs in a public arena -- on the streets and highways -- it is not just a privacy problem since it affects the safety of others. Highway use is simply not within the protected zone, it asserts, unlike the bedroom of a married couple as described in a leading Supreme Court case propounding the right to privacy, Griswold v. Connecticut.(50) "There would be no place where any such right to be let alone would be less assertable than on a modern highway with cars, trucks, busses and cycles whizzing by at sixty or seventy miles an hour. When one ventures onto such a highway, he must be expected and required to conform to public safety regulations and controls...."(51)

Some of the cases which upheld motorcycle helmet laws suggested that it might even be acceptable to justify these laws as protecting the health and welfare of all motorists, including the affected cyclist. Here, the individual whose liberty is impinged on is simply assumed into the larger class of which he is also a member. The state, it seems, is interested in the individual's welfare not only as it is affected by others but also as it may be affected by his own actions. Some cases

extend this and assert that the state is legitimately interested in protecting people from their own carelessness. There is no sanction for self-destruction or risking it, and the means of preventing these losses is a proper application of the police power. Other examples of required self-protective equipment include the bright orange clothing many hunters wear, life preservers in boats and on water skiers, hard hats on construction workers and protective goggles on some workers. All these examples are plainly self-protective, as opposed to having mixed public and private benefits, and they are all allowed. Several courts have drawn on an analogy to the prevention of suicide, which is usually considered a proper state function. At least 10 states have relied to some extent on the legitimacy of the state's interest in protecting the individual from himself in upholding helmet laws.(52)

One manifestation of the rationale of a legitimate state interest in individual safety in the area of occupant restraints is the now ubiquitous child restraint device (CRD) laws. To date, no lawsuit challenging their constitutionality has been reported. These statutes are usually presumed to fall within the state's parens patriae power, where traditionally the public interest in the welfare of all children has been extensive. This concern for minors sometimes allows the state to intervene on a child's behalf even against the parents' wishes. In an interesting application of the parens patriae doctrine, several of the states which repealed their helmet laws reenacted them to cover minors.(53) The applicability of parens patriae analogies to regulations affecting competent adults is limited, however, since the underlying assumption that the state is the ultimate guardian of those unable to care for themselves seems very weak in the context of mature individuals.

The rationale of protecting individuals from the consequences of their own actions and the rationale of state guardianship of the interests of the young, weak, or infirm coalesce somewhat in the cases upholding compulsory medical treatment of adults. While sometimes parens patriae seems implicated because the patient's illness or injury leaves him debilitated, medical intervention has been ordered on other, related grounds for competent persons. These cases often involve compelling life-saving blood transfusions for Jehovah's Witnesses who object on religious grounds. One case said simply that ordering the transfusion satisfied a public interest in preventing death.(54) Others incorporated parens patriae and related doctrines and justified compulsory treatment because the preservation of the patient's life was in the best interests of innocent third parties: children or dependent families, and sometimes even adult spouses.(55) Many of these cases were criticized for presuming a compelling state interest in the preservation of life, where some critics and, in fact, some courts deferred to the patient's wishes, citing freedom of choice as the paramount value in our society. Nevertheless, a legitimate state interest in the preservation

of human life was described in quite a few cases.(56) Even without resort to theories protecting third parties, this state interest in the prevention of avoidable death may have ramifications for self-protective legislation.

The state interest in the preservation of life has found expression, although slightly rephrased, in several cases upholding motorcycle helmet laws. "It is to the interest of the state to have strong, robust, healthy citizens, capable of self-support, of bearing arms, and of adding to the resources of the country."(57) It is reasonable, then, to use the police power to prevent critical injuries. In fact, the greater the likelihood of serious injury, the more justified the state intrusion, some cases say. The appropriateness of helmet laws in curtailing serious head injuries -- the greatest cause of motorcycle fatalities -- makes this all the more persuasive. It addresses the substantiality of the connection between the measure adopted and the goal to be achieved.(58) Underlying these arguments is the legitimacy of the state interest in preserving the lives of productive members of its constituency.

Returning to the theme that motorcycle helmets have widespread effects, many cases state that all highway users have an interest in the seriousness of the consequences and the frequency of highway accidents. One manifestation of these indirect but real effects are the arguments that allow the state to prevent people from becoming wards of the state. Regulations aimed at preventing someone from becoming a public charge are legitimate, and one was willing to declare helmet laws valid solely on the potential burden on society of accident victims. This argument hypothesizes that many of those injured cannot pay all their medical bills and many never work again, becoming welfare charges themselves and perhaps thrusting their families onto the public assistance rolls. Further, they no longer contribute productively to the economy or the nation's revenues. Calculations of these welfare costs of accidents usually run in the billions of dollars. At least 10 states have cited the economic costs of motorcycle accidents in upholding helmet laws.(59)

Alternate applications of the disseminated costs approach argue that accidents drive up the costs of everybody's insurance, and that the general public should not be forced to subsidize the risk-taking of a few.(60) Still others say that helmetless bikers impose indirect costs on the public through an increased need for government emergency services: police, fire, and emergency medical care.(61) The cumulative costs of accidents, this theory says, are borne by far more people than just the unfortunate rider himself.

One unique excuse for the validity of motorcycle helmet laws attempted to remove it from the context of a conflict of state interests and constitutional rights and said that it might be justified as a mere equipment regulation, much like other accessories on motorcycles.(62)

POSSIBLE LEGAL CHALLENGES TO MANDATORY BELT USE LAWS

One of the recognized rights of individuals which some opponents of helmet laws thought impinged was the right to travel. This unenumerated right enjoys a status similar to the traditional fundamental values, and if affected by helmet laws, is likely to be implicated in challenges to seat belt laws as well. Yet the right to travel has always been held subject to regulation; this is particularly apparent in the ability of the government to restrict travel to unfriendly countries. Cases dealing with foreign travel have, in dicta explaining the ability of the government to regulate movement of citizens from place to place, mentioned the legitimacy of domestic travel restraints as well. The example one case used was that of a disaster affecting a particular area, or an epidemic which might be spread from a confined, afflicted community. In these situations, travel may be prohibited if the prohibition contributes to the safety and welfare of the nation or the affected area.(62) Among these reasonable regulations under the police power are regulations for safety, in particular traffic laws. Indeed, the multitude of speed, stop, and turning restrictions could be said to confine in some manner the public's freedom of movement. Curfews imposed after civil disturbances have similarly been upheld even though they are far more restrictive than traffic laws. Those complete prohibitions required more justification than the less imposing everyday regulations, yet they were still upheld as within the state's police power despite the preferred status of the right to travel. Even a permanent street closing made in the interest of ensuring the safety and tranquility of the residents of a neighborhood was upheld as a reasonable exercise of government power despite its inconvenience to others. This rationale was applied specifically to one challenge to motorcycle helmet laws, and resulted in the statute being upheld.(63) Clearly, the right to travel may be regulated.

A subsidiary challenge that may flow from the right to travel claims a right to drive, which may be impinged by seat belt requirements. Several motorcycle helmet cases attempted to dispose of this contention by denying its premise. They classified the operation of a motor vehicle as a privilege, not as a right. They argued in support of this theory that a license granted by the state is required before driving. This presumption of privilege was undermined in 1971 by a Supreme Court case, Bell v. Burson, which held that a driver's license

was an entitlement. As such, it could not be revoked without the trappings of due process; specifically, a hearing. But implicit in the Bell holding is the ability of the state to regulate the exercise of the ability to drive represented by that entitlement to a driver's license. License suspension for refusal to take a breathalyzer test after an arrest for drunken driving has similarly been upheld as legitimately within the state's power. This opinion pointed to the reasonableness of the statute given the end it served, and the nonfundamental status of the subordinate right to drive. This opinion considered itself to be within the guidelines of Bell. Similarly, a person previously convicted of operating an auto without the owner's consent was required to post a monetary security before being granted a driver's license. Challenging this on right to travel and right to drive theories, the court found that the security requirement served a legitimate state purpose in that it protected other drivers from potential monetary burdens instead of safety hazards.(64) Though the notion of driving as an activity pursued at the grace of the state seems debunked, the legitimacy of reasonable government restrictions on that activity seem firmly supported.

Void-for-vagueness and lack of notice challenges to motorcycle helmet laws fared poorly. If laws were properly promulgated with hearings and the like, part of this problem was removed. The fact that helmet standards were reasonably well established and known further undercut this argument; it was not hard for the motorcycle rider to find approved helmet designs. Nor was it an improper delegation of authority for some administrative agency to finalize the technical specifications of those accepted designs. Vagueness and notice issues seem foregone conclusions as far as seat belts are concerned.(65) Approved models are currently installed in all cars, and only passive restraint systems would involve the implementation of new technology. Even there, NHTSA standards are well documented.

Motorcycle riders also complained that they were singled out for disproportionate regulation, and that this special and unwanted attention created equal protection problems. In short, they felt they were being discriminated against. Yet the equal protection challenges usually met with a rebuttal that motorcycles were unique vehicles that deserved special treatment. Because the motorcycle rider has almost no body protection and only two wheels to rely on for balance and stability, he deserves special treatment, the rebuttal contends. Regulation is aimed only at countering the unusual risks accompanying this less-safe vehicle's use. Note that equal protection arguments attach even if all members of the identified group are treated similarly, for the group itself might be receiving unfair attention. All the helmet cases claimed that the identification of motorcycle riders as a distinct class deserving such special attention, for the above reason, was warranted.(66) One twist on this challenge said that equal protection was better served by helmet statutes since they

protected the safety and welfare of all highway users and not just the motorcyclists themselves. Also, motorcycles are not the only type of vehicle singled out for special treatment. A recent challenge to truck inspection regulations found that identifying trucks as a unique class with special regulatory needs is likewise justified.(67) Peculiar risks and problems may demand more particular regulations, and this form of special attention is not automatically discriminatory.

If a good reason exists for identifying a particular class, equal protection problems are minimized. With CRD laws, the protection of a powerless class, infants and small children, has yet to be attacked. Even where mandatory helmet use laws were repealed, they were often reenacted for minors, without objection.(68) In these cases, legislative intervention on behalf of those unable to help themselves is accepted. Whether this will be extended to those unable to make a reasoned decision due to a lack of information, or in fact unwilling to voluntarily undertake a precaution clearly indicated by the scientific evidence, is problematic. Though motorcycle helmet cases did not use this particular line of reasoning, one wonders if the effect was not the same. The bikers themselves should have been the most acutely aware of the special hazards they faced, yet they either denied the reality of those risks or obstinately defied them. Sensing a deficiency, the government intervened.

Since automobiles are the most common type of vehicle on the road, one wonders whether they will ever be candidates for "special risk" consideration. Though their hazards may well be different from those of either motorcycles or trucks, it is hard to call them unique. After all, the problems of automobiles constitute the bulk of highway safety issues. Yet in terms of equal protection analysis, this may be turned around to say that regulation of the most pervasive mode of motorized transportation is the kind of control that is the least likely to present equal protection problems. Automobile safety regulations reach almost the entire motoring public; even bikers or truckers often have personal automobiles that they use from time to time. The risk of a disproportionate share of the burden falling on any individual or any particular class thus seems minimal. One problem area which might appear in the equal protection arena is the presence of cars made in the 1960s which are not equipped with belts of any kind. Owners of these vehicles would, therefore, be unable to comply with mandatory seat belt use laws; or perhaps be unduly burdened in having to retrofit their cars in order to comply. Yet these kinds of cars amount to less than 4% of all the cars on the road. However, this does not mean that only a relative few having to install belts reduces the equal protection problem; on the contrary, it would seem to indicate the opposite since a small, well-defined group would be supporting virtually all the modification costs of compliance. Perhaps a grandfather clause excusing occupants of these older vehicles would be satisfactory. This would not

amount to discrimination in favor of that minority, since underinclusive classifications in the traffic safety field were upheld by Railway Express Agency v. New York.(69) From this perspective, the small portion of automobiles exempted does not seem to present less of a problem. The burden of compliance, from this angle, is borne by better than 95% of the drivers.

Since these statutes are passed by states as opposed to Congress, the possibility of discrepancies from state to state are real. Here burden-on-commerce doctrine and equal protection theory come together to provide some recommendations. The avenue for raising a complaint based on differences across state borders would be a complaint that the inconsistency impinged on travel and the flow of commerce, but that issue is laced with problems relevant to equal protection considerations. However, no problem would exist if the law applied to all drivers while operating a vehicle on roads within the state's boundaries. Only if in-state drivers were somehow favored, or out-of-staters unduly burdened, would an inequitable situation arise. However, a plausible burden-on-commerce argument might be made if the variety of laws among the states was so chaotic as to really create a disincentive for interstate travel. Practical problems in selecting which state's law to challenge abound, and there is probably a 10th Amendment problem as well. So only disciminatory treatment within a particular state is likely to be litigated. The solution to this potential problem used by most CRD laws is to apply them only to drivers registered in that state while driving in their home state.(70) So far this approach has not been challenged, perhaps because it is a permissible underinclusive classification just as in Railway Express.

When the challenged state regulation pertains to safety, it often is vindicated. Several examples of such intrusions which have been upheld in the name of safety follow. Among them is the banning of billboards along highways in the interest of the safety of the traveling public.(71) Also, random stops and safety inspections of trucks on the highway have been upheld as serving a legitimate government interest. In this case, right to travel and right to drive objections were disregarded.(72) In a case challenging the legitimacy of a state law requiring a minimum number of persons on train crews, any conceivable reasonable basis for the requirement was sought out to uphold the statute.(73) In short, it seems that state safety regulations enjoy a rather special status, and are hard to overturn. This bodes well for mandatory seat belt legislation. But does it also mean that the concept of limited government suffers when laws are passed under the guise of safety?

DUE PROCESS: THE EXTENT AND LIMITS OF STATE REGULATION

Any mandatory seat belt law enters a judicial climate which favors state safety regulations whenever they are challenged. There is a strong presumption of the validity of these laws as being within the proper range of the police power, even in the face of a due process attack. The Supreme Court has expressed a reluctance to invalidate safety regulations deemed necessary by state legislatures, especially highway safety measures.(74) The regard given traffic safety laws is recognized in the court's acknowledgement that the state's power here is "broad and pervasive."(75) This results from the fact that such matters are perceived to be peculiarly local in nature, and more appropriate for state regulation. Besides, a 10th Amendment argument may be made for the proposition that safety laws are primarily the responsibility of the states in our federal system. Given the position that within the realm of safety, highway laws are regarded as almost exclusively local, it comes as no surprise that automobiles are likely to be assumed into this coverage. In 1941, the court recognized that motor vehicles present enough danger to make regulation of them necessary.(76) The idea of passing automobile safety measures such as seat belt laws in state legislatures is, therefore, prima facie legitimate.

This presumption of validity translates into a deference to the state legislature's judgement about the most appropriate resolution of a perceived problem. If alternative measures exist, the court will not pick the best from among them. Such policy decisions, the court has stated, are reserved for the state legislatures. Perhaps because technology, knowledge and public attitudes change, the concept of public safety has been described as evolutionary, Because of this, the need for legislative discretion is even more important.(77) Even a new concept such as a mandatory seat belt law, then, would not be automatically suspect, and certainly not ultra vires.

The presumption of validity arises from the long-standing function of the state to protect the public health, safety, and welfare. The furtherance of one of these ends is legitimate because it benefits the lot of the population as a whole. For a law to be valid, then, there must be a public interest in seeing it implemented. Although this argument is somewhat circular, it would appear that representative legislatures are the best expressions of these commonly felt needs. As both the measure and the instrument of the public interest, their power is broad. Herein lies the reason for the deferrence accorded their actions. Although the final determination of a legitimate public interest may not rest with the legislature, most challenges to safety statutes thus seem pragmatically directed at the means chosen to accomplish the end desired rather than the chosen end itself. This subject will be addressed in more detail below.

Some of the motorcycle helmet law challenges questioned the threshold determination of whether there was a public interest which required official action. Once a social need is identified, it becomes a proper subject for legislation, and the individual may be compelled or have his liberty infringed in some way. Interference with individual liberty cannot automatically invalidate legislation which properly serves the public welfare, for the common good is clearly superior to the private right. It has been suggested that in the realm of public safety, the state may have even more latitude in regulating individual conduct, perhaps because of the immediacy and directness with which benefits accrue. This may even result in a public need to compel an individual to protect himself, as was argued in some of the motorcycle cases.(78) When a choice between conflicting interests must be made, the public need predominates.

The use of the police power to protect the public welfare has been labeled the least limitable power of government. But it nevertheless is circumscribed in some manner. The "public interest" cannot become a tyranny of the majority, allowing the legislature to do anything it pleases in the name of public welfare. Even though many challenges to helmet laws conceded the desirability of such statutes, they still questioned the ability of the state to compel compliance.(79) Though the public good outweighs the private interest, in a limited system of government the common interest must establish its predominance by satisfying the tests which constrain that exercise of collective power.

The exercises of the broad latitude given the police power in the area of public health, safety, and welfare regulation is in fact limited by some normative guidelines. The yardstick of the propriety of state safety regulations is their "reasonableness." Even the opinions declaring the ability of the state to confine individual exercises of rights refer to the necessity of these limitations being "reasonable." Yet reasonableness seems a very amorphous standard. The test has been used to prevent illogical applications of a contrived public need to justify regulation, but beyond that it seems that even laws which only theoretically serve the public interest may be upheld. Here is some elucidation of what the reasonableness standard means: There must be some logical connection between the type of regulation desired and the legitimate state interest used to justify it. This reasonable or rational relation seems to be the majority rule in assessing challenges to safety regulations. It was the most common test employed by courts in evaluating the constitutionality of motorcycle helmet laws.(80) In short, as long as the means chosen in some way serve the end specified, the laws will be upheld.

Does this mean that as long as a law could conceivably advance the public health and welfare it will be upheld? That sort of standard of mere plausibility seems to be all that was needed by the Supreme Court

in their sustaining regulation of optometrists in Williamson v. Lee Optical Co. There, the Court was willing to go so far as to hypothesize for the state legislature some basis for the law in question.(81) The allowance of any statute which reasonably related to a permissible end will then sustain a highway safety statute which in theory protects other people, and perhaps the individual himself. This approach certainly puts the burden of proof on the challenger of a statute. Further, once a minimal connection is established, once the act is deemed to be properly within the police power, then only the legislature can judge its wisdom. The means chosen may not be scrutinized if they serve a legitimate end. Here is where the presumption of validity comes in. The existence of alternative methods, even arguably "better" or more effective ones, may be beyond judicial scrutiny. After all, the argument goes, the choice of policy is within the sphere of the legislature, and only the underlying propriety of the program -- whether or not it falls within acceptable state objectives -- is for the judiciary to determine. Lack of good judgement is not a basis for overturning statutes.(82)

The question of what constitutes a reasonable relation between a regulation and a public purpose still seems somewhat elusive. Williamson suggested that it meant mere hypothetical plausibility. Following this lead, one motorcycle helmet case said that the effectiveness of the statute in achieving its stated end was irrelevant.(83) Another Supreme Court opinion indicated that it would uphold a highway safety statute even if it had only a speculative contribution to safety.(84) But this case went on to overturn the law in question since the state at trial presented no evidence that the law was effective in promoting safety, relying instead on the presumption of validity of safety regulations. Apparently some evidence must be presented, but it seems it need not be "in vivo" or tried on human subjets under actual conditions. "Speculative," however, is not the same thing as "theoretical" proof, at least as applied by the courts. Often the evidence used to get a measure passed in the legislature will be speculative; that is, extrapolated from laboratory experiments and analogous situations. This still has more substance than something which merely appeals to logic. It is necessarily prospective, though. Perhaps this explains the discounting of the importance of proof of effectiveness by one court. One case which overturned a helmet statute rejected the missile hazard theory as being unsubstantiated.(85) The difference here was that the justifications offered were purely theoretical. Some proof that the law could save lives might have sustained it, and would be different than saying it might save lives. While evidence in support of a statute need not be based on actual experience (although this would be best), it apparently must have some scientific basis. These highway safety cases seem more concerned with empirical data, even if gathered only in a laboratory, than the hypotheticals proposed by Williamson.

The rational relation or "reasonableless" test in the highway safety context thus demonstrates a preference for some sort of empirical supporting evidence, either retrospective or predictions based on scientific studies and reasoning. This burden of proof is still a sort of "any evidence" standard, however. Perhaps subtly, the initial burden of proof has been shifted, though. The state now must offer some evidence for its action instead of resting on the presumption of validity. In perhaps the most recent highway safety case heard by the Court, one opinion said that once the safety benefit is shown not to be illusory, the judiciary will defer to the state legislature's judgement about the regulation.(86) In upholding a truck inspection scheme, the Court of Appeals for the Third Circuit overturned a district court judgement against the state because it imposed too onerous a burden on the justification for the state's plan. Only minimal evidence of the efficacy of the regulations was needed; here, only a "reasonable basis to believe that some defects will be discovered" was sufficient to uphold the scheme's validity.(87) Note that this approach preserves the deference to the state legislature. The presumption of validity still benefits the state, only in that their burden of proof is minimal. The rational relation test does not require close scrutiny of the connection between the means chosen and the public purpose sought; only clear violations of the Constitution will be overturned.

This preference for empirical evidence sometimes leads to a rephrasing of the applicable test as requiring a "real and substantial" relation between means and ends. This really is a more rigorous test than the rational relation standard, and some states employ it in challenges to laws in the safety area. In the motorcycle helmet cases the state usually won even when this more demanding connection was required. The "real and substantial relation" test probably undercuts the presumption in favor of the statute's validity, and may well shift the initial burden of proof to the state. One possible explanation for this tougher standard is that these laws often directly interfere with some form of personal liberty. Therefore, a more rigorous test is required than the simple rational relation analysis with which indirect regulation, such as conditions imposed on manufacturers or employers, are evaluated. In this "real and substantial relation" context, the means must be reasonably necessary for the accomplishment of the desired purpose. The strength of evidence justifying such propositions must also be greater; the importance of empirical data is then raised. Though they did not explicitly say they were using a more rigorous test, several courts upholding motorcycle helmet laws cited studies of lives saved by helmets after the law went into effect, perhaps thwarting a challenge even on substantiality grounds. "Any evidence" in this context must instead be more directly probative of the regulation's effectiveness. One further explanation for the resort to a tougher standard is that though well-meaning, these regulations present a danger of insidious encroachment on important rights. Because private rights

are indeed threatened, the public interest requiring their regulation must in fact be real and substantial, according to this view.(88) This test, though less common, is really just a somewhat more rigorous application of the same type of analysis used in assessing statutes by the "reasonableness" standard.

The test of a statute's validity seems to vary directly with the importance of the right thought to be infringed and the degree of that infringement. And so above, where safety regulations were perceived as merely containing somewhat the types of activity the general public could engage in, a mere rational relation between the state law and the public interest being served was sufficient to preserve the law. Where the intrusion was perceived as being somewhat greater, perhaps because more than just defining the scope of permissible activity it strictly forbade certain individual actions, a real and substantial evidentiary basis for the statute was required. No one challenging a safety regulation has yet to convince a court that strict scrutiny ought to be applied, although the rights they raise merit that high level of attention in other contexts. The right to travel and the entitlement of a driver's license have been shown to be subject to reasonable regulation. In more imprecise terms, the right of privacy and liberty have even been held to be reachable by safety laws. But even those cases usually refer back to the reasonableness of the regulation in light of the public interest involved, and center on the relationship of the ends and means.

The right of privacy, a state interest in safety, and the interaction of the two in the setting of routine, unannounced automobile safety inspection stops was discussed by the Supreme Court in Delaware v. Prouse. Here, such a random stop and check produced evidence of the possession of marijuana, for which the driver was arrested. The outcome of the case primarily depended on the 4th Amendment search and seizure issues, although the right of privacy in automobiles was intimately involved in the discussion. The Court acknowledged that the government interest in safety was indeed great, but not enough to outweigh the interest in privacy through the mechanism used here. Two important implications arise from this position. The first is that the regulation of automobiles does not destroy the expectation of privacy that people have in their cars. The second is that the means by which a state interest is advanced are all-important in answering whether the regulation is legitimate.(89) Because of the centrality of the 4th Amendment in this case, the Prouse holding is not directly applicable to prospects for mandatory seat belt laws, although it may well make enforcement of such laws more difficult. It does affirm that the right of privacy does apply to automobiles, but perhaps only as regards their physical integrity. After all, the operation of the automobile on public streets and highways is not really a private activity; how and where that vehicle may go is subject to many traffic laws. Nevertheless, Prouse's use of an examination of the productivity of safety

measures suggests that at some point such laws may be effective enough to warrant intrusion.

Interestingly, a recent Ohio case upheld nearly identical safety stops for trucks, saying that they were a reasonable means of furthering a legitimate government purpose. It specifically compared its situation to the holding in Delaware v. Prouse, and decided that since trucks were commercial vehicles, the right of privacy was reduced, therefore allowing this activity.(90)

Because many of the drivers and passengers who may be affected by mandatory seat belt use laws are citizens acting in their private capacity, the privacy and freedom issues are highlighted. It is the ability of the state to compel belt use in this personal context that is the most troublesome aspect of the whole concept. There is an admitted public interest in seeing lives saved, and many critics may even concede that belts make some contribution to that goal. Nevertheless, the question remains whether the public interest is strong enough, the means chosen effective enough, and the intrusion minimal enough to uphold such laws. As far as several state legislatures were concerned in making this calculation for motorcycle helmets, the answer after the federal incentive was removed was, "No." Given that the enclosure of an automobile suggests more privacy than the openness of a motorcycle, perhaps the weighting of those competing interests will be made with different values assigned to the various factors.

Commerce Power Perspectives

At least one commentator has suggested that the federal government might be able to require seat belt use under the commerce power.(91) This is more likely for commercial vehicles than private automobiles, however. Also, given the potential 10th Amendment problems and the traditional function of the state in this area, it is unlikely. Still, looking at the commerce power perspective on safety regulations may provide additional tools for analyzing questions about the constitutionality of seat belt laws. Challenges to these measures are possible on the theory that they burden interstate commerce by affecting the traveling habits of businessmen and tourists.

In fact, those regulations which pass due process might still be invalidated under the supremacy clause. There is a genuine national interest in keeping the flow of commerce free from interference.(92) This does not mean that states can never make regulations which affect interstate travelers passing through their jurisdiction, especially when those laws relate to highway safety. As long as the state justifications for the regulation are not illusory, the Court will not

second-guess the judgement of the state legislature. But this statement of deference seems qualified somewhat by the Court's assertion that where the state law is only marginally effective and the regulation substantially interferes with commerce, then the Court will balance the two.(93) Where state interests and national interests conflict, the supremacy clause suggests the national should dominate, but the federal system and the 10th Amendment suggest deference to the states. Here, then, is a conflict between two legitimate purposes, much like in the conflict of private rights and public welfare in seat belt laws. In the commerce area, a balancing approach has been chosen to reconcile the two competitors. The restraints are balanced against the national public interest, with some deference to the state safety interests. Expressed another way, the question is whether the burdens on commerce are excessive in relation to the local benefits which accrue.(94) Under a commerce power analysis the usual presumption weighs in favor of the state interest, and in seat belt law challenges it will still accrue to the state. In the state versus individual interest debate, this balancing act may be treated as allowing laws which are not "unduly oppressive." (95)

In the seat belt controversy, the presumption in favor of state interests is potentially very expansive, and some lines need to be drawn. The loss of liberty must be weighed against the benefits gained, and the value assigned to factors on each side may very well affect the outcome. For instance, if the effect of highway casualties on public welfare or insurance rates is thought too remote, that interest loses significance. If belts' effectiveness is thought insubstantial, or if compulsion's effect on belt usage is inadequate, the cause for legislation is also reduced.

On the other hand, if a significant savings of lives can be achieved, or if the burden of compliance on the individual is thought minimal, then the case against the law weakens. Finally, as evidence of the need to rank values in this determination, it has been said that the infringement on liberty which a mandatory seat belt use law would cause would be mainly figurative and actually minimal. Yet, if the symbolic value of government regulation is thought high, even this may affect the outcome of the balancing process.

CONCLUDING COMMENTS

Though the implications of statistics are never as certain as their mathematical precision might suggest, the uniform conclusion of all studies of seat belts' life-saving effects is that belts do save lives. Even the exceptional situations sometimes offered as departures from

that rule are disproved by studies. The figures disagree about the magnitude of the impact belts may have, but even the most conservative estimates place the reduction in deaths and injuries at nearly 50%. This writer cannot conceive of any logical argument opposing the use of seat belts.

Yet the abysmally low usage rates reported in the general population demonstrate that around 85% of the people in this country don't feel that way. Perhaps if they were only educated about the benefits of belts that would change. But how many people will listen to or even notice the public service announcements? Media blitzes have been tried before, and failed miserably. Still, perhaps for those who are willing to listen to reason, the opportunity to make up their own minds must be provided.

Studies of attitudes indicate that a natural tendency towards denial may undercut the impact of any publicity campaign. Given this and the variety of other public attitudes towards seat belt use, some compulsion appears necessary. It may be most useful for the lazy or forgetful, neither of whom consciously choose to ignore the scientific evidence. However, compulsion may be limited in effectiveness in reaching the obstinate, hard-core minority that refuses to accept facts that have yet to touch them personally, or that consciously flaunts the law for the thrill of recklessness or for machismo. For these people, only vigorous enforcement of compulsory laws is likely to have any effect. Yet such enforcement may be unpalatable and of limited effectiveness. It will be costly, intrusive, and may be very constrained by constitutional limitations suggested by Delaware v. Prouse. There is also the paradoxical phenomenon that results from the increment that accrues to scofflaws' arrogance every time they circumvent a more vigorously enforced law.

Given the lackadaisical nature of much of the public attitude toward seat belts, are rights really trampled by mandatory use laws? If the decision not to wear belts is usually based on inconvenience or forgetfulness, how conscious is it? Even if some rational choice is involved, it appears at best to be casual, and founded on misinformation. How much would these people feel restrained by compulsory use? Those who may object most violently, the hard-core minority, simply rely on mistaken beliefs which are contradicted by the facts. If they are not susceptible to reason, are we worried about their rights? In short, though a minority's concerns must be respected, in this context should a highly visible minority be able to block legislation that is likely to be accepted by the majority and to benefit all?

Voluntary inducements to use belts have failed. That was recognized by the federal government more than a decade ago when it committed itself to a policy of seeking passive restraints which would involve no

volitional, affirmative conduct on the part of the vehicle occupant. Passive systems overcome all sorts of problems with the alternatives; they may even be designed so that they cannot be defeated by the obstinate minority. No enforcement is needed, and education is also unnecessary although perhaps advisable so as to offset whatever doubts may arise. Also, passive restraints may not be perceived as involving the same kind of compulsion as mandatory use laws, since the directness of the government imposition is mediated by an impersonal mechanical device.

The issue of compulsion is something like a specter raised from obscurity by the government's retreat from the passive restraint program. This retreat is manifested in the Dole decision announced in the summer of 1984. That retrenching has caused some unholy alliances both for and against mandatory use laws; most notable perhaps is the disingenuous auto industry PAC, Traffic Safety Now, lobbying on behalf of the laws. Nevertheless, compulsion may be the most effective answer to the highway safety problem. Use rates soared during the short life of ignition interlocks. More telling, perhaps, was the 30% drop in motorcycle fatalities that occurred when helmet use laws went into effect. An additional piece of proof of that effectiveness comes out of the repeal of helmet laws, where in one state the first month after the repeal saw a near doubling of deaths.

The statistics suggest that many lives indeed will be saved should mandatory belt use laws be passed. Exact projections are difficult, though, not only because efficacy statistics and supposed compliance estimates are inexact, but also because those least likely to obey the new laws are also those most likely to get in accidents. This situation caused the savings in Canada to fall below expectations. Nevertheless, the savings were significant. But what numbers are substantial enough to satisfy the challengers? If the majority view in the motorcycle helmet cases is used, then almost any savings will prove a rational relation between the law and the state interest in the health, safety, and welfare of its populace. Here, the application of the police power is easily vindicated. But the analogy between automobile safety and motorcycle safety is limited since the two types of vehicles are very different. Motorcyclists are open to public view, to hazards, and to the elements. Car drivers are secure in their enclosed passenger compartment with a reasonable expectation of privacy. Even here, though, the survivability benefits of seat belts may pass the more rigorous scrutiny they are likely to be subjected to. The passive restraint requirements were held to be substantially justified in several court challenges, and the strength of the savings statistics is likely to be well within the "real and substantial" range as well.

The furtherance of the public interest may result from the contribution of seat belts to an intangible quality such as health, safety,

and welfare, or it may be describable in more concrete terms. Here the effect on lives is important, and this may take several forms. There is arguably a public interest in the guardianship of those unable to look out for themselves. This includes the weak, such as children, and perhaps even those rendered powerless by ignorance. Whether it applies to guardianship of those more susceptible because of their obstinancy is the most tenuous extension of this line of argument, but there are precedents for prohibiting irrational risk-taking.

There is also a public interest in regulating the effects of citizens on each other, and so it is legitimate for the government to constrain behavior on behalf of third parties. These may be those immediately affected by the consequences of careless injury to oneself, one's family, and dependents. But it may also include others. In the motorcycle helmet cases, these ripple effects were held to include the welfare and emergency service costs which all had to bear and which were increased by the addition of helmetless riders to the casualty lists. Insurance costs were even added to this catalog of fallout from the rider's carelessness. These social costs or consequences may simply be too attenuated to be persuasive, and are the least certain of all arguments about protecting third parties.

There are, however, more direct and immediate effects on other persons. Among these are the avoidance of some accidents altogether, attributable to seat belts by their function in helping the driver stay in control of the vehicle during emergencies. Also, a belted occupant is less of a threat to his fellow travelers since should there be an accident, he will not be thrown about the car, thus greatly reducing the possibility that he will strike them and aggravate their injuries. These are real phenomena, but perhaps only the legislature can determine if they are enough of a threat to require regulation.

The most problematic area of asserting a public interest is when it comes to regulating the situation of the person alone in his car. The public welfare impact and the threat to other motorists secondary to a loss of control remain applicable here. But if this person is self-sufficient and independent, some of the public interest rationales fall away. Distilled, the question becomes whether or not people should be protected from themselves. Included here is the question about whether there is indeed a state interest in preserving life, even if the person whose life is to be protected has no desire to do so. But no man is such an island, and the question is never this simple. Even the hypothetical completely independent person does not exist in a vacuum and certainly does not drive in one, so the threat and possible burden on others is unavoidable. Perhaps the state's interest in preserving life is mere baggage riding along with the bundle of other public interests; but because those concerns cannot be ignored, perhaps the preservation of life gains support by association.

Deciding what in fact the public interest is poses yet another problem. Who determines the public interest? Is it the most vocal special interest group; for instance, the auto industry pro-belt law lobby? Or even worse, the mistaken few who believe belts are dangerous? Not only is public opinion difficult to gauge, as studies of seat belt attitudes and usage show, it is also often downright inaccurate. Further, the legislature may well reflect these common misperceptions. Yet perhaps the legislature can be enlightened more easily than the general public. The state assembly may also be the best mouthpiece of the people, however it works and whoever's side it comes down on. This forms the basis for the presumption of validity of legislative enactments, particularly in the public safety area where the individual benefits are elusive but the social benefits great. Judicial deference, given these considerations, is admirable, particularly when it is something like the "public" interest that is being determined. The common good may best be determined by a representative body.

It is interesting to note that already there is speculation about the resistance to mandatory seat belt legislation. Yet belt use has been mandatory on airplanes for some time and no one complains about that. Statistically, airplanes are safer than automobiles.

After all the manipulations of what constitutes a public interest, how it is determined, and whether personal liberty is really infringed in light of the misperception which may lead one to carelessly risk his own life, the real question boils down to a simple dilemma. Even if there is a public interest, can it compel compliance? The determination will be made by weighing the competing interests. These split into two diametrically opposed propositions, assuming all the subordinate arguments made on behalf of either side. In short, do savings in lives and money justify a loss of liberty of any kind, even symbolic? Balancing these two things is difficult, since they are different in kind. Liberty is a quality not amenable to ready measurements, and life and welfare are reduced to specific quantities in this context. Further, the values ascribed to the factors that make up each of the two positions are very subjective, and weighting different priorities with subjective valuations may tilt the scales one way or the other in very idiosyncratic ways. Here again, reliance on the legislature is helpful, but even that process is imperfect. Legislatures, after all, have been known to be captured by special interests. Nevertheless, deference to their judgement may be the most pragmatic solution and the most fair.

The peril posed by motor vehicle accidents is basically a man-made danger; a cost of modern technology. As such, it requires a man-made remedy. One is available in the form of seat belts. The only remaining problem is how to implement this solution in the scheme of limited government which we have also devised.

NOTES

1. Middle Lane - Bags, Belts - And a Loophole, Time, July 23, 1984, at 47; National Safety Council, Policy Update (February 25, 1985).

2. Note, Child Safety in Automobiles: Mandatory Restraint-Use Laws, 52 U. Colo. L. Rev. 125 (1980) (hereinafter cited as Note, Child Safety). See also National Safety Council, supra note 1.

3. See Middle Lane - Bags, Belts - And a Loophole, supra note 1; National Safety Council, supra note 1.

4. Consumer Reports, November 1984, at 663-666.

5. J. Grey, Mandatory Seat Belt Use, Virginia Highway and Transportation Research Council (1985).

6. Middle Lane - Bags, Belts - And a Loophole, supra note 1.

7. Consumer Reports, supra note 4.

8. Note, Legal Issues Presented by Motor Vehicle Restraint Systems, 17 Akron L. Rev. 781 (1984) (hereinafter cited as Note, Legal Issues).

9. Note, Judicial Review of Informal Administrative Rulemaking, 1984 Duke L.J. 347 (1984) (hereinafter cited as Note, Judicial Review).

10. Note, Occupant Protection in Automobiles-Airbags and Other Passive Restraints: The State of the Art, the Federal Standard, and Beyond, 27 Am. U.L. Rev. 635 (1978) (hereinafter cited as Note, Occupant Protection).

11. Note, Judicial Review, supra note 9.

12. Chrysler v. Department of Transportation, 472 F.2d 659 (6th Cir. 1972).

13. Note, Legal Issues, supra note 8.

14. Pacific Legal Foundation v. Department of Transportation, 593 F.2d 1338 (D.C. Cir. 1979), cert. denied, 444 U.S. 830 (1979). See also Note, Judicial Review, supra note 9.

15. Motor Vehicle Manufacturer's Association of the United States, Inc. v. State Farm Mutual Automobile Insurance Company, 463 U.S. 29 (1983); Note, Judicial Review, supra note 9. See also Bags or Belts - Automakers Get the Word, Time, August 16, 1982, at 55.

16. J. O'Day & A. Wolfe, Seat Belt Observations in Michigan - August/September 1983, The University of Michigan Transportation Research Institute (1984) (hereinafter cited as J. O'Day); Opinion Research Corporation, Restraint System Usage in the Traffic Population, National Highway Traffic Safety Administration (1983); C. B. Stoke, Child Safety Seat and Safety Belt Use Among Urban Travelers, Virginia Highway and Transportation Research Council (1984). See also Consumer Reports, supra note 4.

17. J. O'Day, supra note 16.

18. Teknekron, Inc., Safety Belt Usage Attitude Study, National Highway Traffic Safety Administration (1979); Why Hardly Anybody Buckles Up, Changing Times, October 1982, at 82-84.

19. J. Grey, supra note 5; Consumer Reports, supra note 4; The Law Unbuckles, Maclean's, March 2, 1981, at 54.

20. Id.

21. W. A. Ames, The Constitutionality of Mandatory Seat Belt Use Legislation, Virginia Highway Research Council (1972); Transportation Research Board, National Academy of Sciences, Study of Methods of Increasing Safety Belt Use, National Highway Traffic Safety Administration (1981); Werber, A Multi-Disciplinary Approach to Seat Belt Issues, 29 Clev. St. L. Rev. 217 (1980). See also Why Hardly Anybody Buckles Up, supra note 18.

22. Id.

23. Automobile Safety Belt Fact Book, National Highway Traffic Safety Administration (1982); J. O'Day, supra note 16; Why Hardly Anybody Buckles Up, supra note 18.

24. Teknekron, Inc., supra note 18.

25. Study of Methods of Increasing Safety Belt Use, supra note 21; Teknekron, Inc., supra note 18; Why Hardly Anybody Buckles Up, supra note 18.

26. Id.

27. Consumer Reports, supra note 4; Why Hardly Anybody Buckles Up, supra note 18.

28. Automobile Safety Belt Fact Book, supra note 23; R. Scott & J. O'Day, I Do Not Wear Seat Belts Because, Transporation Research

Institute of the University of Michigan (1983); Study of Methods of Increasing Safety Belt Use, supra note 21.

29. Automobile Safety Belt Fact Book, supra note 23; J. Kihlberg, Efficacy of Seat Belts in Injury and Noninjury Crashes, Cornell Aeronautical Laboratory, Inc. (1969); R. Scott & J. O'Day supra note 28.

30. Automobile Safety Belt Fact Book, supra note 23; R. G. Snyder, Seat Belt Injuries in Impact, Office of Aviation Medicine, Federal Aviation Administration (1969); Teknekron, Inc., supra note 18; Werber, supra note 21; Note, Legal Issues, supra note 8; Why Hardly Anybody Buckles Up, supra note 8.

31. Automobile Safety Belt Fact Book, supra note 23; Why Hardly Anybody Buckles Up, supra note 18.

32. W. A. Ames, supra note 21; J. Kihlberg, supra note 29; Consumer Reports, supra note 4.

33. W. A. Ames, supra note 21; Automobile Safety Belt Fact Book, supra note 23; R. G. Snyder, supra note 30; Werber, supra note 21; The Law Unbuckles, supra note 19.

34. C. Lynn & C. H. Simpson, Jr., Seat Belts: Their Use Among Drivers Killed in Fatal Crashes in Virginia, Virginia Highway Research Council (1974); D. Mitchell, Patterns of Safety Belt Use Among Drivers Killed in Fatal Crashes in Virginia, Virginia Highway and Transportation Research Council (1976). See also Automobile Safety Belt Fact Book, supra note 23; J. Grey, supra note 5; J. Kihlberg, supra note 29; Teknekron, Inc., supra note 18; Note, Legal Issues, supra note 8; Why Hardly Anybody Buckles Up, supra note 18.

35. Note, Legal Issues, supra note 8. The New Mexico Supreme Court recently allowed the seat belt defense in that state.

36. Automobile Safety Belt Fact Book, supra note 23; J. Grey, supra note 5; Werber, supra note 21; Consumer Reports, supra note 4.

37. Pritts v. Walter Lowery Trucking Company, 400 F. Supp. 867 (W.D. Penna. 1975).

38. Miller v. Miller, 273 N.C. 228, 160 S.E.2d 65 (1968).

39. Pritts, 400 F. Supp. at 867; McCord v. Green, 362 A.2d 720 (D.C. 1976). See also Peterson v. Klos, 426 F.2d 199 (5th Cir. 1970); Lipscomb v. Diamiani, 226 A.2d 914 (Del. Super. Ct. 1967); Lafferty v. Allstate Insurance Company, 425 So. 2d 1147 (Fla. Dist.

Ct. App. 1982); Note, Helmetless Motorcyclists - Easy Riders Facing Hard Facts: The Rise of the Motorcycle Helmet Defense, 41 Ohio St. L.J. 233 (1980) (hereinafter cited as Note, Helmetless Motorcyclists); Annot., 95 A.L.R.3d 239 (1979); Annot., 92 A.L.R. 3d 9 (1979); Annot., 80 A.L.R.3d 1033 (1977).

40. Bentzler v. Braun, 34 Wis. 2d 362, 149 N.W.2d 626 (1967).

41. McCord, 362 A.2d 720.

42. Note, Self-Protective Safety Devices: An Economic Analysis, 40 U. Chi. L. Rev. 421 (1973) (hereinafter cited as Note, Self-Protective Devices).

43. Id.

44. Teknekron, Inc., supra note 18.

45. Annot., 32 A.L.R.3d (1971). See also American Motorcycle Association v. Davids, 11 Mich. App. 351, 158 N.W.2d 72 (1968), rev'd, People v. Poucher, 67 Mich. App. 133, 240 N.W.2d 298 (1976) (aff'd, 398 Mich. 316, 247 N.W.2d 798 (1976) (public interest in highway safety does overcome invasion of individual privacy)); State v. Betts, 21 Ohio Misc. 175, 252 N.E.2d 866 (1969); Note, Constitutionality of Mandatory Motorcycle Helmet Legislation, 73 Dick. L. Rev. 100 (1968) (hereinafter cited as Note, Helmet Legislation); Note, Motorcycle Helmets and the Constitutionality of Self-Protective Legislation, 30 Ohio St. L.J. 355 (1969) (hereinafter cited as Note, Self-Protective Legislation).

46. Annot., 32 A.L.R.3d 1270 (1971). See also People v. Fries, 42 Ill. 2d 446, 250 N.E.2d 149 (1969); American Motorcycle Association, 158 N.W.2d 72; People v. Smallwood, 52 Misc. 2d 1027, 277 N.Y.S.2d 429 (Ct. Spec. Sess. 1967); Note, Helmet Legislation, supra note 45; Teknekron, Inc., supra note 18.

47. Note, Helmet Legislation, supra note 45; State v. Lee, 51 Hawaii 516, 465 P.2d 573 (1970) (Abe, J., dissenting); Annot., 32 A.L.R.3d 1270 (1971).

48. Note, Helmetless Motorcyclists, supra note 39.

49. W. A. Ames, supra note 21; State v. Cotton, 55 Hawaii 138, 516 P.2d 709 (1973); State v. Cotton, 55 Hawaii 148, 516 P.2d 715 (1973); Everhardt v. City of New Orleans, 253 La. 285, 217 So. 2d 400 (1968), cert. denied and appeal dismissed, 395 U.S. 212 (1969); State v. Quinnam, 367 A.2d 1032 (Me. 1977); State v. Merski, 113 N.H. 323, 307 A.2d 825 (1973); State v. Mele, 103 N.J. Super. 353,

247 A.2d 176 (1968); People v. Carmichael, 56 Misc. 2d 388, 288 N.Y.S.2d 931 (Genesee County Ct. 1968); People v. Newhouse, 55 Misc. 2d 1064, 287 N.Y.S.2d 713 (Ithaca City Ct. 1968); State v. Anderson, 275 N.C. 168, 166 S.E.2d 49 (1969); State v. Odegaard, 165 N.W.2d 677 (N.D. 1969); Colvin v. Lombardi, 104 R.I. 28, 241 A.2d 625 (1968); Bisenius v. Karns, 42 Wis. 2d 42, 165 N.W.2d 377 (1969), appeal dismissed, 395 U.S. 709 (1969). See generally Annot., 32 A.L.R.3d 1270 (1971).

50. Griswold v. Connecticut, 381 U.S. 479 (1965). For cases addressing the right of privacy and motorcycle helmets, see Commonwealth v. Cowan, 4 Mass. App. Ct. 796, 344 N.E.2d 419 (1976); Arutanoff v. Metropolitan Government of Nashville and Davidson County, 223 Tenn. 535, 448 S.W.2d 408 (1969).

51. Bisenius, 165 N.W.2d at 382.

52. Commonwealth v. Howie, 354 Mass. 769, 238 N.E.2d 373 (1968), cert. denied, 393 U.S. 999 (1968); Mele, 247 A.2d 176; Carmichael, 288 N.Y.S.2d 931; Newhouse, 287 N.Y.S.2d 713; Odegaard, 165 N.W.2d 677; Bisenius, 165 N.W.2d 382; Note, The Validity of Motorcycle Helmet Legislation, 30 U. Pitt. L. Rev. 421 (1968).

53. Note, Child Safety, supra note 2; Note, The Validity of Motorcycle Helmet Legislation, supra note 52.

54. John F. Kennedy Memorial Hospital v. Heston, 58 N.J. 576, 279 A.2d 670 (1971), modified, In Re Conroy, 28 N.J. 321, 486 A.2d 1209, 1224 (1985) (public interest in preserving life only extends to prevention of self-inflicted injury and not to right of terminally ill to suspend medical intervention).

55. Application of the President and Directors of Georgetown College, Inc., 331 F.2d 1000 (D.C. Cir. 1964), reh'g denied, 331 F.2d 1010 (1964), cert. denied, 377 U.S. 978 (1964).

56. J. Paris, Compulsory Medical Treatment and Religious Freedom: Whose Law Shall Prevail?, 10 U.S.F.L. Rev. 1 (1975); Note, The Refusal of Life-Saving Treatment vs. the State's Interest in the Preservation of Life: A Clarification of the Interests at Stake, 58 Wash. U.L.Q. 85 (1980).

57. Carmichael, 288 N.Y.S.2d at 935 (quoting People v. Havnor, 149 N.Y. 195, 203-204, 43 N.E. 541, 544 (1896), error dismissed, 170 U.S. 408 (1898)).

58. Lee, 465 P.2d at 573; Newhouse, 287 N.Y.S.2d at 713; Graham, Fatal Motorcycle Accidents, 14 J. Forensic Sci. 79 (1969).

59. Cotton, 516 P.2d at 709; Newhouse, 287 N.Y.S.2d at 713; Anderson, 166 S.E.2d 49; Odegaard, 165 N.W.2d at 677; Colvin, 241 A.2d 625; Consumer Reports, supra note 4.

60. Anderson, 166 S.E.2d 49.

61. State v Albertson, 93 Idaho 640, 470 P.2d 300 (1970); State v. Laitenen, 77 Wash. 2d 130, 459 P.2d 789 (1969), cert. denied, 397 U.S. 1055 (1970); Note, Helmet Legislation, supra note 45.

62. Zemel v. Rusk, 381 U.S. 1, 15-16 (1964), reh'g denied, 382 U.S. 873 (1965).

63. City of Memphis v. Greene, 451 U.S. 100 (1981) reh'g denied, 452 U.S. 955 (1981); Quinnam, 367 A.2d 1032; State v. Dobbins, 277 N.C. 484, 178 S.E.2d 449 (1971). See also Annot., 32 A.L.R.3d 1270 (1971).

64. Bell v. Burson, 402 U.S. 535 (1971); Miller v. Malloy, 343 F. Supp. 46 (D. Vt. 1972); Hernandez v. Department of Motor Vehicles, 30 Cal. 3d 70, 634 P.2d 917, 177 Cal. Rptr. 566 (1981); Everhardt, 217 So. 2d 400. See also Annot., 32 A.L.R.3d 1270 (1971).

65. See Annot., 32 A.L.R.3d 1270 (1971).

66. Everhardt, 217 So. 2d 400; Carmichael, 288 N.Y.S.2d 935; Anderson, 166 S.E.2d 49; Colvin, 241 A.2d 625; Bisenius, 165 N.W.2d 382. See also Annot., 32 A.L.R.3d 1270 (1971) and cases cited therein.

67. American Trucking Association, Inc. v. Larson, 683 F.2d 787 (3rd Cir. 1982), cert. denied, 459 U.S. 1036 (1982).

68. Note, Child Safety, supra note 2.

69. Railway Express Agency v. New York, 336 U.S.106 (1949); W. A. Ames, supra note 21; Werber, supra note 21; Note, Self-Protective Legislation, supra note 45.

70. Raymond Motor Transportation, Inc. v. Rice, 434 U.S. 429 (1978); American Trucking Association, 683 F.2d 789; Note, Toward a Uniform Child Restraint Law, 21 J. Fam. L. 301 (1982-83).

71. Micalite Sign Corporation v. State Highway Department, 126 Vt. 498, 236 A.2d 680 (1967).

72. State v. C. Benson, No. L-82-253, slip. op., (Ohio Ct. App. Feb. 18, 1983).

73. Chicago & North Western Ry. Co. v. La Follette, 43 Wis. 2d 631, 169 N.W.2d 441 (1969).

74. Raymond Motor Transportation, Inc., 434 U.S. 429.

75. Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520, 523 (1959).

76. Reitz v. Mealy, 314 U.S. 33 (1941), rev'd on other grounds, Perez v. Campbell, 402 U.S. 637, 654 (1971) (cited in Note, The Validity of Motorcycle Helmet Statutes, 35 Alb. L. Rev. 533 (1971)).

77. Raymond Motor Transportation, Inc., 434 U.S. 429; Bibb, 359 U.S. at 524; American Trucking Association, 683 F.2d 789; Bisenius, 165 N.W.2d 382.

78. Carmichael, 288 N.Y.S.2d 935; W. A. Ames, supra note 21; Note, The Validity of Motorcycle Helmet Legislation, supra note 52; Annot., 32 A.L.R.3d 1270 (1971) and cases cited therein.

79. Note, Helmet Legislation, supra note 45; Note, Self-Protective Legislation, supra note 45.

80. Merski, 307 A.2d 825; Note, The Validity of Motorcycle Helmet Statutes, supra note 76. See also Annot., 32 A.L.R.3d 1270 (1971) and cases cited herein.

81. Williamson v. Lee Opitcal Co., 348 U.S. 483 (1955).

82. Hernandez, 634 P.2d 917; Cotton, 516 P.2d 715; Everhardt, 217 So. 2d 400; Annot., 32 A.L.R.3d 1270 (1971); Note, Constitutional Law - Police Power - Michigan Statute Requiring Motorcyclists to Wear Protective Helmets Held Unconstitutional, 67 Mich. L. Rev. 360 (1980) (hereinafter cited as Note, Constitutional Law).

83. Mele, 247 A.2d 176.

84. Raymond Motor Transportation, Inc., 434 U.S. 429.

85. American Motorcycle Association, 158 N.W.2d 72.

86. Kassel v. Consolidated Freightways Corporation of Delaware, 450 U.S. 662 (1981) (Brennan, J., concurring).

87. American Trucking Association, 683 F.2d at 799.

88. Cotton, 516 P.2d 709 (Abe, J., dissenting); Anderson, 166 S.E.2d 49; W. A. Ames, supra note 21; Note, Constitutional Law, supra note 82; Annot., 32 A.L.R.3d 1270 (1971).

89. Delaware v. Prouse, 440 U.S. 648 (1979).

90. Benson, No. L-82-253, slip. op., (Ohio Ct. App.).

91. Note, The Validity of Motorcycle Helmet Legislation, supra note 52.

92. Bibb, 359 U.S. 520.

93. Kassel, 450 U.S. 662.

94. Kassel, 450 U.S. 662; Raymond Motor Transportation, Inc., 434 U.S. 429; Bibb, 359 U.S. 520; American Trucking Association, 683 F.2d 789.

95. Lee, 465 P.2d 573.

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Title and Subtitle

THE COMPREHENSIVE COMMUNITY-BASED TRAFFIC SAFETY PROGRAM PHASE I: PROBLEM IDENTIFICATION FOR DISTRICT 2 AND DISTRICT 7

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Abstract

This report contains the initial Problem Identification for the Comprehensive Community-Based Traffic Safety Program (CCBP). Two DMV districts, District 2 and District 7, have been selected as the pilot areas for the CCBP, and because both districts are slated to have their own support staff, they are treated as separate entities. That is, problem areas were considered and ranked only within a district, rather than across the two districts.

The bulk of this report deals with ranking the localities within each district according to which have the most pronounced crash problems in general and among several specific problem areas. Five years of baseline crash data, 1980 to 1984, were subjected to linear regression analysis, with projections being made for the year 1985. These projections, either for general or specific crash problem areas, were ranked among the localities within each problem area. Separate ranks were calculated for the absolute number of crashes and another measure which normalizes the absolute number relative to the size of a locality. These two ranks were then added together to produce ranks relative to both the absolute number and the normalized measure. The localities were also grouped according to natural clustering (i.e., localities which have relatively similar crash problem ranks) to form priority target areas. Further, for each locality, the times of the days during the week which had the greatest numbers of crashes were noted. For counties, the routes and road segments with high numbers of crashes and high crash rates were also noted.

In general, the data show that Botetourt County, Danville, Lynchburg, and Roanoke City were projected to have the most pronounced crash problems in District 2. Hampton, Newport News, Norfolk, and Virginia Beach were projected to have the most pronounced problems in District 7. Alcohol-related crashes, crashes involving excessive speed, and pedestrian crashes were found to contribute significantly to the crash problems experienced in both of the pilot districts. It is recommended that the CCBP initially concentrate on developing countermeasures for these problems, along with developing occupant protection programs, citizen advisory committees, and a traffic hot line to encourage public input and involvement in the CCBP.