

The original documents are located in Box 4, folder “Automobiles” of the James M. Cannon Files at the Gerald R. Ford Presidential Library.

Copyright Notice

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material. Gerald Ford donated to the United States of America his copyrights in all of his unpublished writings in National Archives collections. Works prepared by U.S. Government employees as part of their official duties are in the public domain. The copyrights to materials written by other individuals or organizations are presumed to remain with them. If you think any of the information displayed in the PDF is subject to a valid copyright claim, please contact the Gerald R. Ford Presidential Library.



DEPARTMENT OF TRANSPORTATION

NEWS

OFFICE OF THE SECRETARY

WASHINGTON, D.C. 20590

FOR IMMEDIATE RELEASE

June 9, 1976

DOT 35-76

Phone: (202) 426-4321

Secretary of Transportation William T. Coleman, Jr., today scheduled a public hearing for August 3, 1976, to hear arguments prior to deciding the future of vehicle occupant restraint systems.

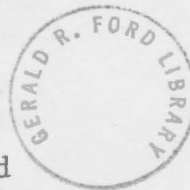
The Secretary also announced that the Department will propose an extension of the requirements of the present standard for one year to apply to automobiles manufactured through August 31, 1977.

Federal Motor Vehicle Safety Standard (FMVSS) 208 now requires manufacturers to provide occupant protection in vehicles by one of three options: (1) a completely passive restraint system providing protection in frontal, lateral and roll-over crashes; (2) a passive restraint system providing protection in frontal crashes combined with lap seat belts providing protection in lateral and roll-over crashes; (3) lap and shoulder belts at the front outboard positions and lap seat belts for all other positions.

In a notice of public hearing sent to the Federal Register today Secretary Coleman said, "The attractiveness of passive restraints is two-fold. First, it has been thought they would perform more effectively in preventing injuries than would seat belts; and, second, because seat belts are not used consistently, passive restraints, which require no action by the occupant, would ensure more widespread crash protection.

"However," the Secretary said, "the prospect of mandating passive restraints in automobiles has become increasingly controversial. Questions of effectiveness, cost, and suspected hazards, as well as the philosophical problems of restricting individuals' freedom of choice with regard to how much they pay for safety protection, have been raised by opponents of the air bag.

"It is in the context of this controversy that I must make a decision as to the future of passive restraints," Secretary Coleman said.



Secretary Coleman said he will issue a written decision on or before January 1, 1977.

He noted that because of public dissatisfaction with the interlock system required by revision to FMVSS 208 in 1973, Congress in 1974 ordered that there be no requirement in the future of an occupant restraint system other than seat belts, unless the requirement is first submitted to Congress subject to disapproval by concurrent resolution.

In proposing a one year extension of the present requirements of FMVSS 208, which would have expired August 31, 1976, Secretary Coleman said that this action is being taken because of the need to provide time after the August 3rd hearing for written submissions, the time necessary to formulate and write a decision and, if necessary, the period required for Congressional review. Because of these time considerations, he said, a final resolution of any proposal to amend FMVSS 208 will not be reached until after the expiration of the present requirements, and perhaps not until substantially after January 1, 1977.

The hearing will be held at the Departmental Auditorium, Constitution Avenue between 12th and 14th Streets, N.W., Washington, D.C., from 9:30 a.m. to 12:30 p.m. and from 2:00 p.m. to 5:00 p.m. on August 3.

Participants will be permitted a maximum of ten minutes each. Additionally, written presentations may be submitted on or before September 17, 1976, to the Secretary of Transportation, Washington, D.C. 20590, indicating FMVSS 208 Hearing on the envelope.

Persons wishing to testify should notify the Secretary in writing no later than July 12, 1976.

In issuing the notice of public hearing, Secretary Coleman recommended that discussion be directed to the following issues:

- The appropriate role of the Federal Government in prescribing motor vehicle safety standards.
- The benefits and costs of alternative occupant restraint systems.
- Public acceptance of occupant restraint systems.

Secretary Coleman also outlined five possible courses of action which he will consider individually, in combination or after refinement.

These are:

1. Continuation of the present three-option version of FMVSS 208 and continuation of research directed toward developing effective passive restraint systems.
2. Continuation of the present three-option version of FMVSS 208 and a concurrent proposal for a new traffic safety standard requiring the states to adopt and enforce safety belt usage laws or otherwise achieve a usage level much higher than being experienced today.
3. Continuation of the present three-option version of FMVSS 208 while a federally sponsored field test of passive restraints is conducted with the data collected to be used in formulating a future decision on mandating passive restraints.
4. Amendment of FMVSS 208 to require passive restraint systems for all automobiles manufactured after a given date, that date to be determined primarily by the amount of lead time needed by manufacturers to comply with the amended standard.
5. Amendment of FMVSS 208 to require that automobile manufacturers provide customers with the option of passive restraints in some models.

The notice of public hearing regarding amendment of FMVSS 208 is expected to be printed in the June 14, 1976 edition of the Federal Register. Copies may be obtained from:

Office of the Secretary of Transportation
Office of Public Affairs (S-83)
Washington, D.C. 20590

Phone: (202) 426-4321

####



DEPARTMENT OF TRANSPORTATION
OFFICE OF THE SECRETARY
Washington, D.C. 20590

Official Business

PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
DEPARTMENT OF
TRANSPORTATION
DOT 518

FIRST CLASS



cc: Quern
Moore

THE WHITE HOUSE
WASHINGTON

976 SEP 22 11 59
September 21, 1976

ADMINISTRATIVELY CONFIDENTIAL

MEMORANDUM FOR:

JIM CANNON

FROM:

JIM CONNOR JEF

The attached clipping was returned in the President's outbox with the following notation:

"Detroit Free Press - front page daily
Question"

cc: Dick Cheney



Sound
Off

THE QUESTION

A bill that would have established a federal program to develop an electric car was vetoed by President Ford on the grounds that private industry is better suited to undertake the project. Do you agree with the president's decision?

HOW YOU VOTED

YES, 71.1 percent. COMMENTS: "President Ford made a wise choice. The government isn't in the car building business" ... "If the government builds an electric car you can be sure it will be messed up" ... "Maybe if the Big 3 develop it I can get a job" ... "If the government builds the car, the taxpayers will pay for it" ... "Let private industry waste its money."

NO, 28.9 percent. COMMENTS: "The auto makers don't want the competition of an electric car" ... "Big business or the government, what's the difference?" ... "There are too many special interest groups that will prevent development of the electric car" ... "I don't agree with the president on any issue."

092203

Transportation

THE WHITE HOUSE

WASHINGTON

May 14, 1976

INFORMATION

MEMORANDUM FOR:

JAMES CANNON

FROM:

JUDITH RICHARDS HOPE

SUBJECT:

Fact Sheet - Auto Industry

I attach a Fact Sheet on the United States Automobile Industry. Highlights include:

Car sales are up 39 percent for the first four months of this year.

Imports are down by more than one-third.

1976 prospects are for a dramatically improved car sale year.

Total motor vehicle factory shipments in the U.S. comprises 2.2 percent of our GNP.

The auto industry consumes 20 percent of our steel output, 64 percent of rubber, 12 percent of annual aluminum production. It employs 1 of every 19 workers.

Michigan produces one-third of all domestic auto production (1975). The next closest states are Missouri and Ohio, each with 11 percent.

Labor Relations: Contracts between the Big Three and the UAW expire September 15 of this year. Job security is high on the UAW's list.

The Rubber Workers' Strike against major tire manufacturers is now in its fourth week and could imperil auto production if it runs another two weeks.

Attachment



May 13, 1976

FACT SHEET ON AUTO INDUSTRY

AUTO SALES IN THE U. S. MARKET

Thus far in 1976 - Sales of domestically produced cars in the first four months of 1976 totalled 2.84 million units, up 39 percent from the 2.04 million domestic units sold in January-April of 1975.

Impact of imports - Imports have accounted for 13.7 percent of total U. S. auto sales thus far in 1976 -- down by more than one-third from the 21.2 percent market share held by imports in the same period last year. The dramatic decline in imports is entirely accounted for by the fall-off in Volkswagen and other European makes -- Japanese imports (primarily Toyota and Datsun) are up, in fact, over 1975 levels for the January-April period.

Significant market trends - The surge in sales of subcompact cars, predicted at the time that the 1976 models were launched, has simply not materialized; subcompacts have declined to 11.6 percent of domestic car sales in 1976, from 15.3 percent in the first four months of 1975. The phenomenon of the domestic car market in 1976 is the intermediate (112-120 inch wheelbase); intermediate sales are 27.7 percent of domestic makes, up from a 21.5 percent share in January-April of 1975. The Oldsmobile Cutlass is the best selling make in the United States, running well ahead of the Chevrolet Impala and the Ford Granada.

1976 Prospects - The consensus both within the industry and on Wall Street is for 10.2 million new-car sales in 1976, including imports. Assuming that imports remain in the 14 percent range, this would net out at 8.8 million domestically-produced units, well above the 7.0 million units sold in calendar 1975. The trend projection for 1977 is 10.8 million in total sales -- although some General Motors forecasters see 11.2 million as a reasonable target for next year.

Treasury Department's Dumping Decision - The finding of the Treasury Department on May 4 that Volkswagen, Volvo, Renault and other foreign manufacturers had been selling cars at lower prices in the U. S. than in Europe, but accepting the producers' assurances that such "dumping" would be stopped, was well received in Detroit. Leonard Woodcock, President of the United Auto Workers, was quoted in the New York Times on May 13 as having indicated that Treasury's decision was "acceptable" to the UAW.



INDIVIDUAL AUTO MAKER PERFORMANCES

General Motors - GM reported a 13-fold increase in first quarter earnings in 1976 -- \$800 million as compared to \$59 million in the same quarter a year ago. These earnings represented the second best first quarter in GM's history, a result in part of General Motors' increased share of the domestic car market -- up from 51.7 percent in the first four months of 1975 to 54.6 percent thus far in 1976 -- as well as the general resurgence of domestic car consumption.

Ford - Ford posted a consolidated net income of \$343 million for the first quarter of 1976, or \$3.65 per share of common stock -- compared with an 11-cent loss in the period a year ago. Like GM, it was the second-best first quarter ever. Ford's dollar value of sales, at \$7.4 billion, set an all-time record for the company for that period.

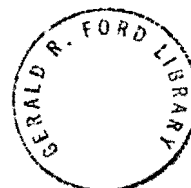
Chrysler - After five consecutive quarters of losses, Chrysler reported net income of \$72 million for the first quarter of 1976. Chrysler suffered a disastrous year in 1975, posting a net loss of \$117 million. Chrysler has been particularly fortunate in the timing of its introduction in 1976 of the Volare and the Aspen, which have benefitted from the shift in consumer taste away from subcompact models.

American Motors - AMC reported \$1.2 million in net income for the quarter ending March 31, 1976 -- compared to a loss of \$49 million in the same period last year. This represents the fourth consecutive quarter of profitable operations for AMC -- although AMC does not appear to be participating as strongly in the auto industry's recovery as have GM, Ford and Chrysler.

ECONOMIC IMPACT OF U. S. AUTO INDUSTRY

Proportion of Gross National Product - Total value of motor vehicle factory shipments from U.S. plants (passenger cars, trucks and busses) was \$33.3 billion in 1975 -- or 2.2 percent of GNP. This figure represents only direct output from the auto factories, of course, and does not include any of the prodigious "multiplier" effects which the auto industry has on the distribution and service sectors of the U.S. economy.

Employment - One of every 19 workers (5.3 percent of the workforce) depends directly or indirectly on the auto industry for employment. The auto industry consumes 21 percent of the nation's steel output, 64 percent of rubber, and 12 percent of annual aluminum production. At the nadir of the auto industry's slump in February of 1975, 240,000



production workers were on indefinite layoff. This figure is now -- 15 months later -- estimated to be below 35,000.

Production Concentration in Michigan - Exactly one-third of all domestic auto production in 1975 took place in Michigan. The next closest states were Missouri and Ohio, each with roughly 11 percent.

FEDERAL POLICY IMPACT ON AUTO INDUSTRY

Emission and Mileage Standards - The auto industry continues to stress its apprehension over the uncertainties that accompany decision making on Federal standards with respect both to emission controls and gasoline mileage efficiency. Emission controls are not scheduled to be debated on the Senate until after June 2, in the form of amendments to the Clean Air Act. The House has yet to schedule debate on this issue.

Decisions on emission standards will clearly have a direct impact on policy with respect to fuel efficiency standards, now under study by DOT.

LABOR RELATIONS ISSUES

Contracts - The contracts between the Big Three and the UAW expire on September 15 of this year. The UAW has already indicated that job security will be high on its priority list for this year -- in addition to cost of living protection and wage increases.

Rubber Workers' Strike - The Rubber Workers' strike against the major tire manufacturers, now in its fourth week, could imperil auto production if the strike runs more than another two weeks. The auto companies may begin to put pressure on the tire companies to settle, as shortages begin to develop; on the other hand, the auto industry is equally aware of the impact which a "heavy" Rubber Worker settlement is likely to have on its own bargaining with the UAW in just four months.





THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

Automobile

June 9, 1976

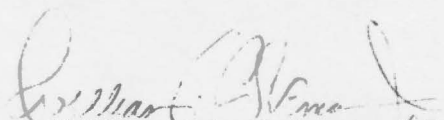
Public Notice Concerning Motor Vehicle Occupant Crash Protection

Today I am proposing for public review and comment several alternative actions which the Federal government could take to protect motor vehicle occupants from death or injury resulting from traffic accidents. The alternatives are (1) to continue the existing version of Federal Motor Vehicle Safety Standard 208 which requires that manufacturers provide either seat belts, or passive restraints (e.g., air bags), or a combination of the two; or (2) to require States to take actions to increase seat belt use; or (3) to conduct a Federal field test of passive restraints; or (4) to require that manufacturers provide passive restraints on all cars; or (5) to require that manufacturers provide an option of passive restraints on some models. Adoption of any of these alternatives would involve action by the Department to extend or amend Federal Motor Vehicle Safety Standard 208. Some would also require Congressional action. I am releasing today the text of these alternative rule changes and directing their publication in the Federal Register.

Because of the degree of public and Congressional interest in this matter and because of the major policy issues it raises, I will personally hold a public session in Washington, D.C. on August 3, 1976, for up to six hours, to hear the views of interested groups, individuals, and public officials. I also welcome written comments submitted on or before September 17, 1976. I intend to reach a final decision on or before January 1, 1977, and to issue a final rule amending FMVSS 208 at that time.

In order to focus public comment, I am also releasing today a statement of the issues which must be considered in reaching a decision and the facts as I now see them.

I look forward to receiving the views of interested groups, individuals, and public officials.


William T. Coleman, Jr.



DEPARTMENT OF TRANSPORTATION
AMENDMENT OF FEDERAL MOTOR VEHICLE SAFETY STANDARD
NO. 208 (OCCUPANT CRASH PROTECTION)

Public Hearing

As Secretary of Transportation, I am ultimately responsible for deciding whether to amend Federal Motor Vehicle Safety Standard 208, which provides for occupant crash protection in motor vehicles. My involvement is also required because some of the possible courses of action involve recommending new legislation. I have decided that it is in the public interest to set forth the issues prior to such decision and to hear up to six hours of argument, addressed to these issues, by interested parties in a public session on August 3, 1976. Written comments on these issues, or issues raised at the public session, may also be submitted to me on or before September 17, 1976. I will issue a written decision on or before January 1, 1977. At the outset, I wish to make it clear that no decision has been made in this matter.

This notice will briefly summarize the background and current status of FMVSS 208, will set forth in more detail the specific issues, including pertinent facts and analyses, which must be addressed in attempting to reach a decision in the public interest, and will describe the various alternative regulatory and legislative actions under consideration. This notice, together with the appendices hereto, is being sent to the Federal Register today for publication and will satisfy the other requirements of the Administrative Procedure Act for a notice of proposed rulemaking. The public session on August 3, 1976, and the subsequent period designated for written comments will satisfy the other requirements of the Administrative Procedure Act with regard to rulemaking, and, at the time that I publish my written decision, I will, unless facts at the hearing develop which make this an inappropriate procedure, issue a final rule amending FMVSS 208.

In September 1966, Congress passed the National Traffic and Motor Vehicle Safety Act of 1966 (The Safety Act), the purpose of which was "to reduce traffic accidents and deaths and injuries to persons resulting from traffic accidents". Pursuant to the Safety Act, the Secretary of Transportation is charged with the responsibility of establishing motor vehicle safety standards to protect the public against



"unreasonable risk of accidents occurring as a result of the design, construction or performance of motor vehicles" and also against "unreasonable risk of death or injury to persons in the event accidents do occur". In January 1968, the National Highway Traffic Safety Administration (NHTSA), acting upon authority delegated to it by the Secretary of Transportation,^{1/} proposed the original version of FMVSS 208. FMVSS 208 provides that manufacturers must ensure that their automobiles are equipped with occupant crash protection systems such as seat belts, air cushions, etc.

The present form of FMVSS 208 was first introduced in 1972 and requires manufacturers to provide occupant protection in vehicles by one of three options: (1) a completely passive restraint system^{2/} providing protection in frontal, lateral, and roll-over crashes, or (2) a passive restraint system providing protection in frontal crashes combined with lap seat belts providing protection in lateral and roll-over crashes, or (3) lap and shoulder seat belts at the front outboard positions and lap seat belts for all other positions. The vast majority of manufacturers have adopted the lap and shoulder seat belt option.^{3/} The present version of FMVSS 208 was revised in 1973 to require an ignition interlock system to increase the wearing of seat belts, but

^{1/} The Secretary's regulations, delegating authority to NHTSA, exist to ensure that routine business can be conducted without the Secretary's personal participation and to ensure administrative finality at the NHTSA level when the Secretary so desires, but do not operate to divest the Secretary of any authority. The fact that, on this occasion, I am personally deciding whether, and if so how, to amend FMVSS 208, does not therefore necessitate a formal revocation of NHTSA's authority in this matter.

^{2/} A "passive restraint system" is a system that affords crash protection without requiring action on the part of the vehicle's occupant. To date, two passive restraint systems have been developed which appear to be capable of meeting the injury protection criteria of FMVSS 208 in frontal crash conditions -- the air cushion restraint system (air bag) and the passive belt (a shoulder belt and knee bolster system in which the shoulder belt deploys automatically).

^{3/} General Motors has offered a passive restraint system, an air cushion restraint system (air bag), as an option on its luxury cars for the years 1974, 1975, and 1976; however, G.M. has now announced its intention not to offer this option in the future. Volkswagen has recently introduced an optional passive belt system in the 1976 Rabbit.

Congress, as a result of public dissatisfaction with the ignition interlock system, voided that requirement in 1974 and the rule was amended accordingly that same year. Because of the public expression of dissatisfaction with the interlock system, Congress, in its 1974 legislation, also ordered that there be no requirement in the future of an occupant restraint system other than seat belts, unless such a requirement were first submitted to Congress subject to being disapproved by a concurrent resolution.

Ever since FMVSS 208 was first promulgated in 1968, NHTSA has anticipated that passive restraints might eventually become required equipment. Indeed, from 1971 until 1974 when FMVSS 208 was most recently amended, as described above, the standard explicitly called for the adoption of mandatory passive restraints in the future. The attractiveness of passive restraints is twofold. First it has been thought they would perform more effectively in preventing injuries than would seat belts, and second, because seat belts are not used consistently, passive restraints, which require no action by the occupant, would ensure more widespread crash protection. However, the prospect of mandating passive restraints in automobiles has become increasingly controversial. Questions of effectiveness, cost, and suspected hazards, as well as the philosophical problems of restricting individuals' freedom of choice with regard to how much they pay for safety protection, have been raised by opponents of the air bag. It is in the context of this controversy that I must make a decision as to the future of passive restraints.

In 1974 and 1975 the nation experienced significant reductions in highway deaths and injuries due, in large part, to the enforcement of the 55 mph speed limit. To achieve further reduction in deaths and injuries will require increased use of occupant restraints. It is a question involving thousands of lives or deaths and tens of thousands of serious injuries per year. Furthermore, the annual cost to our society in terms of lost resources represented by those who are killed or maimed in traffic accidents is perhaps incalculable. However, we live at a time of increasing citizen awareness of and concern about the impact of Federal regulations in our lives. Many are questioning whether increased government regulation is in the nation's best interest. The public, of course, should always make a distinction between safety regulation and economic regulation as we in the Department attempt to do. The success of governmental regulatory policy in any area, however, will ultimately depend upon the support it receives within the body politic. Recent Congressional action

to ban ignition interlock systems and to prohibit any Federal requirement that motorcycle operators wear safety helmets reflect the belief of many that there are limits to the Federal government's role in forcing the individual to take action to protect himself or herself. Thus this case presents a problem of balancing the need for motor vehicle safety with a concern for the limitations on the Federal government's role in regulating aspects of our national life.

This decision also involves the difficult task of assessing and comparing the safety benefits and costs of alternative occupant restraint systems. While the legislative history of the Safety Act indicates that safety is the overriding consideration, the cost of a standard must also be examined. Marginal increments in safety benefits which can be achieved only at great cost are not in the public interest. Of course reducing safety benefits and costs to quantitative terms which can be measured is extremely difficult. In addressing the issue of the costs and benefits involved, I will set forth the data upon which I base my analysis.

There have been prior opportunities for public comment on this subject. Most recently, NHTSA held hearings on the matter on May 19-23, 1975. But because the issues involved are so difficult, because the public and Congressional interest in this matter is so substantial, and because another hearing is required in any event prior to a final rule being promulgated, I have decided to conduct personally up to six hours of discussion in a public session on the issues which I perceive as being basic to the decision. This will assure that I have the benefit of the latest views and recommendations of concerned and knowledgeable citizens, manufacturers of automobiles and occupant restraint equipment, experts in crash protection, and public officials, both Federal and State. I invite their comments on and analysis of the following issues and alternatives. I repeat that no decision has been made in this matter.

Finally, the current passenger-car requirements of FMVSS 208 apply to automobiles manufactured on or before August 31, 1976, and expire thereafter. In view of the August 3, 1976, date of the public hearing, the need to provide time after the hearing for written submissions to the public docket, the time necessary to formulate and write a decision, and the period required for Congressional review, if necessary, of that decision, a final resolution of any proposal to amend FMVSS 208 may not be reached until substantially after January 1, 1977. Therefore, in the interim, I have decided to propose an amendment of FMVSS 208 to extend the passenger-car requirements of the present standard for one year so as to apply to automobiles manufactured on or before August 31, 1977.

Issues to be Addressed

The following issues are considered relevant to the formulation of a final rule for occupant crash protection. It is recommended that all participants at the hearing address their remarks to one or more of the issues set forth below.

I. Appropriate Role of the Federal Government in Prescribing Motor Vehicle Safety Standards

By virtue of the Safety Act, the Federal government has declared its intent "to reduce deaths and injuries resulting from traffic accidents". As Secretary of Transportation I am charged with the duty of effecting this purpose through the promulgation of Federal motor vehicle safety standards specifying the safety characteristics and crashworthiness of vehicles.^{4/} The goal of motor vehicle safety expressed in the statute is clear and unequivocal. The question arises, however, as to the precise nature of the government's duty in this area and how to achieve the important end of motor vehicle safety while preserving, to the extent possible, both individual freedom of choice and the role of the marketplace in making economic decisions. In the democratic society in which we live, I believe it is my responsibility as a Federal official to consider these important concerns when prescribing safety standards.

Under the terms of the Safety Act, the Federal government's duty in prescribing safety standards is to protect the public "against unreasonable risk of death or injury to persons in the event accidents do occur". I believe that what constitutes an "unreasonable" risk of death or injury is a difficult but critical issue. Some would argue that because

^{4/} The statute itself states that in prescribing safety standards the Secretary is required to consider, among other things:

- (1) relevant available motor vehicle safety data, including the results of research, development testing and evaluation activities;
- (2) whether any proposed standard is reasonable, practicable and appropriate for the particular type of motor vehicle for which it is prescribed; and
- (3) the extent to which such standards will contribute to carrying out the purposes of the Safety Act.

occupants of motor vehicles are currently provided with lap and shoulder belts to protect them against injury in traffic accidents, and that because NHTSA estimates show that lap and shoulder belts, when worn, are about as effective as any of the passive restraint systems, passive restraints do not provide protection against any unreasonable risks. In other words, an individual's decision not to wear a safety belt should be assumed to be the act of a reasonable person so that it does not give rise to an unreasonable risk. Others would maintain that most people do not wear their safety belts and are consequently exposed to a substantial risk of death or injury. This becomes an "unreasonable" risk in the context of the ready availability of passive restraints which require no action on the part of the occupant, thus offering the prospect of drastic reductions in casualties. Some contend that the resolution of this issue lies in whether passive restraints are in fact feasible, superior in performance, economical, and reliable; if so, perhaps it does occasion an "unreasonable risk" not to install them in all automobiles. In any event, a resolution of this issue is certainly fundamental to my decision.

In considering a mandate of any particular crash protection system, such as passive restraints, we are talking about government regulations which restrict individuals' freedom to choose the degree of safety protection they want and how much they are willing to pay for it. Individuals should be able to exercise some freedom of choice about how much they are willing to pay for safety protection in private transportation systems. Those who put a premium on freedom of choice contend that it is not the role of the Federal government to protect citizens absolutely from deaths and injuries in automotive accidents. Rather, government should only ensure that adequate protection is provided which individuals can avail themselves of if they so choose. On the other hand, the stated purpose of the Safety Act is unequivocally "to reduce deaths and injuries to persons resulting from traffic accidents". While safety standards must be "reasonable", according to the statute, individual freedom of choice is not one of the statutorily explicit prescribed considerations and, arguably, should not be allowed to interfere arbitrarily with the basic purposes of the Act.

Mandating passive restraints in motor vehicles might create, additionally, a problem of equity. The issuance of a passive restraint standard will result in the manufacture of vehicles equipped with air bags or passive belts rather than lap and shoulder seat belts. These passive restraint-equipped vehicles will cost more, but, in tests to date, have been found to provide no materially greater protection to those individuals who already use lap and shoulder seat belts.

Nevertheless, these individuals will have to pay more for their automobiles, without any measurable benefit, to help provide passive restraints to those who choose not to wear seat belts. Thus, those who currently wear seat belts would be forced to subsidize those who do not. How public policy should deal with such a subsidy is an issue upon which I would welcome comment.

Personal convenience is another aspect of individual freedom of choice. The Federal government's experiences with ignition interlock systems demonstrate that, despite reasonable cost and demonstrable safety benefits, personal convenience can be of overwhelming importance. In this regard, passive restraint systems appear to be very attractive; they probably are more convenient than safety belts in that they do not require any action by the automobile occupant to be effective.

Government regulation in the safety area, as elsewhere, tends to limit the role of the marketplace in making economic decisions, and thereby also to inhibit innovation. Certainly, mandating passive restraints does not comport with the ideal of a free enterprise economy. On the other hand, there are limitations to the benefits that the free market can provide. Some people supported the original passage of the Safety Act because they concluded that the traditional marketplace mechanism was not effective in satisfying our society's need for automotive safety. It is difficult to believe, for instance, that there would be seat belts in every car today if their installation had had to rely on the demands of the marketplace. The extent to which Federal regulations governing occupant crash protection should strive to preserve the role of the marketplace is an issue upon which I invite discussion.

Specific Questions Relating to the Federal Role

1. Does the unwillingness of many people to wear safety belts expose them to an "unreasonable" risk of death or injury requiring additional occupant crash protection? Does the government have the duty to protect a citizen from danger when a citizen has chosen not to use available means (e.g., lap and shoulder belts) to protect himself? Does the answer depend on how readily available and feasible the additional protection is, and at what cost?

2. What weight should be given to considerations of personal freedom of choice and convenience in regulations concerning occupant crash protection?



3. Should individuals who now use their lap and shoulder belts be required to purchase more expensive passive restraint systems in order to contribute to achieving a societal goal of increased motor vehicle safety?

4. Will passive restraints be available in the marketplace at a reasonable cost for those who would choose them without government regulatory action?

5. To what extent should regulations governing occupant crash protection seek to preserve the role of the marketplace in making economic decisions?

II. Benefits and Costs of Alternative Occupant Restraint Systems

The legislative history of the Safety Act indicates that an assessment of the "practicability" of safety standards should include consideration of technical feasibility and economic factors. Therefore, I will briefly describe the alternative systems available, summarize and compare their benefits and costs, and discuss the extent to which data is available to support these analyses. A more detailed benefit/cost analysis is provided in Appendix A.

A. Feasibility and Performance of Alternative Occupant Restraint Systems

Occupant restraint systems are of two general types -- active and passive. The active systems available today are the familiar lap and shoulder seat belts and lap seat belts. In these, the occupant of a vehicle is protected by the belts from being thrown about and from impacting the hard surfaces of the passenger compartment in the event that an accident occurs. Clearly, to be effective, seat belts must be used. Provided they are used, lap and shoulder seat belts can reduce the likelihood of death in severe automobile accidents by roughly 60% and reduce the severity or avoid the occurrence of injuries by 30% to 60%.

Two passive restraint systems -- the air cushion restraint system (air bag) and the passive belt -- have been developed which appear to be capable of meeting the injury criteria of FMVSS 208 under frontal crash conditions. The air cushion restraint system consists of an air cushion and a sensor system which activates it. The sensor detects the impact of a crash by measuring the vehicle's deceleration. Provided the deceleration is sufficiently intense -- typically corresponding to an impact into a fixed barrier at 12 mph -- the sensor sends a signal to a

device which deploys the air cushion by rapidly inflating it. Typical times for deployment and inflation range from 35 to 70 milliseconds. In the event of an accident, the passenger, rather than impacting the hard surfaces of the vehicle passenger compartment, is cushioned by the air bag. In this way, the incidence or severity of injury is considerably reduced. The need for protection in lateral and roll-over crash conditions will likely require that air bag-equipped cars also have lap belts, although this is a point of some disagreement. Estimates of the effectiveness of the air bag in reducing the risk of death and severe injury under crash conditions indicate the air bag (with lap belt) and lap and shoulder seat belt to be of roughly equivalent effectiveness -- provided the latter is worn.

The so-called "passive belt" system, recently introduced as an option in the Volkswagen Rabbit, consists of a shoulder belt that, upon closing of the door, deploys automatically to protect and restrain the upper torso and a fixed knee bolster to protect and restrain the lower torso. Experience with the passive belt is limited, although engineering judgment would suggest that it is roughly as effective as a lap and shoulder belt. Its advantage over the lap and shoulder belt is that it deploys automatically.

In view of the availability today of both the air bag and passive belts, the technological feasibility of passive restraint systems does not appear to be a serious issue. Nevertheless, the feasibility of manufacturing millions of vehicles per year that will be equipped with passive restraint systems that reliably meet the requirements of the standard for the lifetime of the vehicle is another question and an issue upon which I invite comment.

B. Benefits of Alternative Systems

The direct benefits of occupant restraint systems are usually assessed in terms of the number of fatalities prevented and the number of injuries avoided or reduced in severity. For some systems, such as the lap and shoulder seat belts, field data has been accumulated which can be used to estimate these benefits. The passive restraint systems have not been evaluated in the field as extensively. In these cases, we must rely on engineering judgment and laboratory simulations. Laboratory simulations can, of course, never duplicate the full spectrum of real-world collisions and thus there is greater uncertainty in the accuracy of the estimates of the benefits of the passive systems.

Table 1, which follows, shows the estimated number of fatalities prevented and the number of injuries avoided or reduced in severity annually for various occupant restraint systems. These estimates show

that a substantial reduction in fatalities and injuries can be achieved with either passive restraints or lap and shoulder seat belts -- provided that belt usage rates are sufficiently high. If a 70% usage rate could be achieved with lap and shoulder belts, the benefits would be nearly the same as with full-front air cushion restraints. A 70% usage rate corresponds to seat belt usage levels achieved through effective enforcement of laws mandating the wearing of seat belts now in effect in Australia, New Zealand and many European countries. Australia was the real pioneer in this area, achieving a stable level of seat belt use of 70% in urban areas. Canada's Ontario Province has recently enacted a similar law, and initial usage appears to be around 60% and rising. Traffic deaths and injuries have dropped significantly as a consequence.

In the United States, on the other hand, NHTSA believes the usage levels will likely be only 15% for lap and shoulder belts plus an additional 5% for the lap belt part of the assembly alone. Using the results achieved with the ignition interlock system as a guide, NHTSA has estimated that 35% lap and shoulder belt plus an additional 5% lap belt usage is the probable upper limit to the usage rate that can be achieved voluntarily. Clearly, the unwillingness of most automobile occupants to "buckle-up" has caused this nation to forego much of the potential benefits of safety belts.

In addition to the direct benefits in terms of the reduced number of deaths and injuries, occupant restraint systems may indirectly benefit automobile owners through reduced automotive insurance rates. For example, some insurance companies offer premium reductions to owners of air bag-equipped automobiles. It has been suggested that a \$1.6 billion saving on automobile insurance would be realized annually if air bags were mandated. I look forward to hearing from representatives of the insurance industry as to what they believe the impact of the various alternative restraint systems would be on the cost of automobile insurance to consumers.

Finally, it is important to emphasize that these estimates of benefits apply to the 1975 car population and injury severity distribution. If the average size of cars becomes smaller, the number of fatalities and injuries could increase substantially. If so, the resulting need for effective occupant crash protection systems will be greater. This is a factor which must be considered in my decision.

Table 1

11.

Benefits of Occupant Crash Protection Systems^{5/}

<u>System</u>	<u>Fatalities Prevented Per Year</u>	<u>Injuries Reduced or Avoided Per Year</u>
Lap and shoulder (15%) and lap (5%) belts	3,000	159,300
Lap and shoulder (35%) and lap (5%) belts	6,300	342,600
Lap and shoulder belt (70% usage)	11,500	641,400
Lap and shoulder belt (100% usage)	16,300	916,400
Lap belt (100% usage)	10,900	438,700
Driver-only air cushion ^{6/}	9,200	168,600 ^{10/}
Full-front air cushion ^{7/}	11,200	171,800 ^{10/}
Passive belts ^{8/}	8,200	373,300
Mandatory option ^{9/}		
5% air cushion	3,400	182,700
10% air cushion	4,100	182,100
25% air cushion	5,400	180,300

^{5/} These estimates assume the car population and occupant fatality rates to be that of 1975 (approximately 100 million cars and 27,200 people, respectively), 10 million cars to be manufactured annually, and the distribution of injuries by severity to be the same as in 1975. The discussion in Appendix A gives the basis for these calculations.

^{6/} Assumes 20% lap belt usage by driver and 15% lap and shoulder belt plus 5% lap belt by other front seat occupants.

^{7/} Assumes 20% lap belt usage by all front seat occupants.

^{8/} Assumes 60% passive belt usage, i.e., 40% of people disconnect the system.

^{9/} This refers to a situation in which the Federal government requires manufacturers to make passive restraints available to the consumer as an option. These estimates assume 20% safety belt wearing by all front seat occupants.

^{10/} One obtains these relatively low injury estimates because the air cushion does not deploy unless the accident severity exceeds that corresponding to a crash into a fixed barrier at 12 mph.



C. Cost of Alternative Systems

The direct cash costs of occupant restraint systems are of three kinds. First, there are the start-up costs associated with research and engineering development and design. Second, there are the individual unit costs which represent the cost of producing the occupant restraint system for an individual motor vehicle, and third, any costs of replacement plus higher fuel costs due to the additional weight of the protection system increase operating costs.

Below, in Table 2, is a listing of the NHTSA estimates of the total cash costs of various restraint systems expressed in terms of the cost per automobile. In some cases, high and low estimates are given to indicate the range of estimates that have been quoted by various sources other than NHTSA.

Table 2

Cash Costs of Occupant Crash Protection Systems^{11/}

<u>Restraint System</u>	<u>Cost Per Automobile (\$)</u>		
	<u>Low</u>	<u>NHTSA</u>	<u>High</u>
Lap belt		30	
Lap and shoulder belt	50	60	70
Driver-only air cushion		110	200
Full-front air cushion	100	190 ^{12/}	350
Passive belt		90	

These results clearly show that there are significant differences in the estimated costs of different systems. The NHTSA estimate of the cost of full frontal air cushions is more than three times that of the lap and shoulder safety belt. There is a wide variation in the range of cost estimates for some systems. The air cushion is the most

^{11/} These estimates do not include the cost of lap belts for rear seat occupants. These belts would add roughly \$20 to the cost of all restraint systems.

^{12/} This assumes all cars would be equipped with the air cushion. If the air cushion is offered as an option, a very rough estimate of the cost is taken to be twice this price because of the greater unit cost associated with smaller production lots.

controversial in this regard, with cost estimates varying by greater than a factor of three. I intend to use the public hearing to attempt to reconcile these differing cost estimates so that I fully understand the potential economic impact on the consumer of any decision.

Among the indirect costs of a new, more costly occupant restraint system would be a reduction in automobile sales and attendant loss of automotive manufacturing jobs that might result from the higher price of automobiles. Although data is limited, the available information on the sales/cost elasticity of automobiles yields estimates of from -0.27 to -1.5, with -1.0 being typical; a sales/cost elasticity of -1.0 means that an increase of one percent in the cost of an automobile decreases total sales by one percent. However, the savings in automobile insurance, medical costs, etc., might ultimately compensate, in terms of the national economy, for this loss by increasing people's income and thereby stimulating car sales. In addition, increased business and jobs for the suppliers of occupant restraint systems might also compensate for the decrease in automobile sales.

D. Comparison of Benefits and Costs, Benefit/Cost Ratios

In order to compare quantitatively the various alternatives, it is perhaps useful to consider the ratio of cash benefits to cash costs. Of course, to do this requires that the benefits and costs be described in the same terms. Thus, one must address the question of the "value" of a life and the "cost" of injuries. That is, what is the dollar value of a life saved, an injury reduced or eliminated? To many, such notions are abhorrent -- a life saved is of unlimited value and cannot be measured. Nonetheless, methods have been developed by economists and actuaries to estimate the dollar value of these benefits. One approach is to use the lost potential income, medical costs, and legal expenses to measure the value of a life or the cost of an injury. Alternatively, one could consider the extent to which individuals will typically risk injury or death -- e.g., how much will they spend on automotive safety to reduce the risk of injury and death. Using approaches such as these, economists and actuaries have developed estimates of the dollar costs of deaths and injuries which can be used to quantify in dollar proxy terms the value of the safety benefits of a particular crash protection system. Comparisons of these dollar benefits with cash costs are given in the following table for various occupant protection systems.

Again, the wide range of cost estimates for a given system yields a wide variance in benefit/cost ratios. It must be kept in mind in assessing benefit/cost ratios that such ratios do not spell out all the benefits and costs of a given system, only the cash benefits and costs. Finally, consideration of the total benefits and costs of a proposal are at least as important as their ratio.

Table 3Benefit/Cost Ratios of Occupant Crash Protection Systems^{13/}

	<u>Benefit/Cost Ratio</u>		
	<u>Low Cost</u>	<u>NHTSA Estimated Cost</u>	<u>High Cost</u>
Lap and shoulder (15%) and lap (5%) belt	2.4	2.0	1.7
Lap and shoulder (35%) and lap (5%) belt	5.0	4.1	3.5
Lap and shoulder belt (70% usage)	9.1	7.6	6.5
Lap and shoulder belt (100% usage)	12.2	10.1	6.1
Lap belt (100% usage)		13.7	
Driver-only air cushion		3.1	1.7
Full front air cushion	4.2	2.2	1.2
Passive belts		4.0	
Mandatory option			
5% air cushion		1.8	
10% air cushion		1.7	
25% air cushion		1.5	

^{13/} The cost/benefit ratios in Table 3 reflect the so-called steady-state or equilibrium values that would be achieved over a long period of time. Because the benefits of an occupant protection system are realized after the cost is paid, most economists would agree that the benefits should be discounted to reflect the income lost by an early safety investment whose payoff comes later. Also, because only about 10% of the fleet would be equipped with any new protection system each year, the benefits of the system would be realized incrementally -- at roughly 10% a year -- while the full annual costs are borne immediately. Because of this transition, it takes several years before a new system would be cost-beneficial. For example, for the full front air cushion, it has been estimated that the cumulative benefits would not exceed the cumulative costs for from 5 to 7 years after this system was required.

E. The Availability of Sufficient Field Data to Evaluate Passive Occupant Restraints

There exists only limited field experience with passive restraint systems. General Motors has offered the air cushion as an option in certain 1974-76 models cars. Although G.M.'s original goal was to sell 100,000 air cushion cars per year, less than 10,000 have been sold to date, and G.M. plans to discontinue the option after 1976. Altogether, including the original test fleets manufactured by Ford and G.M., there are roughly 12,000 air cushion-equipped vehicles on the highway today, and fewer than 100 air cushion field deployments have been investigated.¹⁴ There is even less field data available on the passive belt.

Because of this limited field experience, some have argued that, in view of the potentially significant cost of passive restraints, more field data should be developed before a decision is made on mandating passive restraints. I invite comment on the desirability and practicability of a field test of passive restraints.

¹⁴ /According to NHTSA, air bag-equipped cars on the road today have traveled approximately 240,000,000 miles. NHTSA has documented only 89 air bag deployments in that time. In these accidents 4 deaths and an additional 20 injuries at the moderate level or greater occurred. This field experience is probably not sufficient to calculate air bag effectiveness with precision. Of the 4 fatalities resulting from crashes in air bag-equipped cars, one was a 6-week old unrestrained infant who sustained a fatal head injury from being thrown into the dash as a result of emergency braking before the actual crash. In two others, the crash was so severe the occupant compartment was destroyed; in these two crashes no restraint system would have been of any help. The cause of the fourth fatality is uncertain; it appears the driver was slumped across the steering wheel (either passed out or dead) at the time his vehicle impacted a tree; an autopsy was not performed to determine the actual cause of death.

Specific Questions about Alternative Occupant Restraint Systems and their Benefits and Costs

1. Are the air cushion and passive belt systems technologically feasible?
2. Are the cash estimates presented of the costs and benefits of various occupant crash protection systems reasonably accurate?
3. What would be the effect of a shift to smaller cars?
4. What effect will the decision on FMVSS 208 have on automobile insurance rates?
5. What effect will the decision on FMVSS 208 have on sales and employment in the automotive industry?
6. To what extent should benefits, costs, and benefit/cost ratios be weighed in arriving a decision?
7. Are there sufficient data available at present to assess adequately the effectiveness of the various occupant restraint systems?
8. Are there other existing feasible active or passive restraint systems that have not been identified?

III. Public Acceptance of Occupant Restraint Systems

Public acceptance is necessarily of great consequence to the success of Federal efforts to increase automotive safety. While temporary gains can be achieved with unpopular and restrictive safety regulations, experience with the ignition interlock requirement and motorcycle helmet laws shows that safety regulations which significantly curtail personal freedom are frequently overturned. And, unfortunately, the public perception of the safety program usually becomes more negative. A consideration of reasonableness requires, among other things, examination of the public acceptability of a proposal.

A. Voluntary Safety Belt Usage

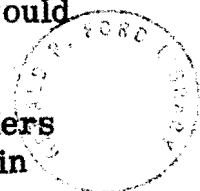
Generally speaking, the concept of voluntary safety belt usage has met with public acceptance. While some lament the fact that many of their fellow citizens do not use seat belts, objections to affording people a choice have been few. The resulting level of usage has been the source of some debate; safety experts disagree as to the percentage of people who are now "buckling-up". Estimates range from as low as 15% to as high as 45%. NHTSA, using experience with the ignition-interlock as a guide, believes that 40% (35% for the full lap and shoulder belt plus an additional 5% for the lap belt part of the assembly alone) is a reasonable upper limit to voluntary safety belt usage with present safety belt designs. Actual current usage rates are estimated by NHTSA to be near 20% (15% plus 5%); trends suggest a slight growth of usage with time.

B. Mandatory Safety Belt Usage Laws

Past experience with State mandatory usage laws suggests that this approach has very low public acceptability. While citizens of other countries may find such laws an effective and acceptable way to promote automotive safety, citizens of the United States have shown considerable opposition to the enactment of laws which require them to take actions to protect themselves on the highways. Although the 1973 Highway Safety Act promised additional Section 402 funds to States which passed mandatory seat belt usage laws, Congress, concerned primarily with the civil liberties impact of this provision, never provided funds for the implementation of this section and completely eliminated this feature in the recently enacted 1976 Federal Highway Act. NHTSA held a National Safety Belt Conference in November 1973 to help legislators and others work to get safety belt usage laws passed. In 1974, bills were introduced in or passed by at least one house of over 20 State legislatures. Only Puerto Rico, however, in 1974, actually passed a law mandating seat belt usage. Some bills were re-introduced in 1975-76, but in dwindling numbers. Support for such laws appears to be waning.

C. Public Acceptance of Passive Restraints

Many argue that passive restraints, especially the air cushion, would meet with public acceptability because of the personal convenience they afford when contrasted with safety belts. The additional cost would be outweighed by the safety benefits and added convenience. Others point to the potential hazards of air bags to demonstrate the likely unacceptability of passive restraints. They say that when one considers the additional costs of passive restraints and the limited increment in safety benefits compared to lap and shoulder belts (if worn), the



unacceptability of passive restraints is assured. Mandating passive restraints would represent a significant and unprecedented increase in the cost of automobile safety. Public indifference to safety, it is argued, implies that additional costs of this magnitude are unacceptable.

The G.M. and Volkswagen experiences with offering optional passive restraints do not give conclusive evidence regarding public acceptability. The economic situation, the move to smaller cars, lack of advertising, and the public's general apathy about spending money for safety all complicate analysis of the G.M. effort to sell the air cushion -- although it is clear that G.M. sold substantially fewer of these systems (10,000 total) than they had planned (100,000 annually). The passive belt has been available only recently, and, although about 30,000 have been sold to date, we simply do not know how the general public would react to passive belts. I earnestly invite comment on this question as it will certainly weigh in my decision on occupant crash protection.

D. Air Bag "Hazards"

In the past, critics of the air bag have argued that there are major potential safety hazards associated with their use which could outweigh the benefits they afford in occupant protection. The following have been prominently mentioned.

1. Hearing damage due to acoustic shock from air bag inflation
2. Eye damage as a result of eyeglass breakage and other trauma due to air bag deployment
3. Toxicity of chemicals used for air bag deployment
4. Unreliability of air bag actuation
 - a. Inadvertent actuation
 - b. Failure to actuate when needed
5. Air bag-inflicted injury to improperly positioned occupants
6. Improper disposal of air bag actuators

Both laboratory experience and the limited field experience during the past several years indicate that these factors do not constitute a significant risk. No case of poisoning or hearing or eye damage has been encountered in thousands of laboratory deployments. Experience with the G.M. and other fleets has demonstrated the reliability of bag deployment and has produced no significant air bag injuries to improperly positioned occupants. Field as well as laboratory results confirm, however, that improper positioning certainly lessens the degree of protection afforded by the air bag. This fact reinforces the value of the lap belt, apart from the basic protection it provides. Improper disposal of air bag actuators is, of course, a matter of concern to manufacturers because of the potential product liability considerations, but we have no evidence to suggest that they will be unable to deal satisfactorily with the problem.

The reliability of any system, particularly any new system, is always important. There is good reason to believe that the air bag system will work when it is supposed to and will not "go off" when it is not supposed to. ^{15/} This is not to say that, should the air bag system be mandated, there will not be start-up problems. In any event, I want to encourage any further discussion that will shed light on this issue.

Specific Questions About Public Acceptance

1. What level of voluntary usage of safety belts is most likely in the future?
2. Should State mandatory safety belt usage laws be proposed?
3. What, if any, Federal laws should be enacted to induce the States to enact such laws?
4. Are passive restraints -- the air cushion and passive belt systems -- acceptable to the public from both a convenience and a cost point of view?
5. Do "air bag hazards" constitute a meaningful risk?
6. How should the issue of public acceptance weigh in my decision?

^{15/} There have been six recorded non-collision (inadvertent) deployments of air bags. Three occurred in service garages; inattention or unfamiliarity with the system by mechanics was the cause in every case. One occurred during a fire and explosion of a propane tank in a vehicle -- a highly unusual circumstance. One was caused when sensor wiring was abraided by a pulley to the engine and resulted in the recall of 2,000 air bag-equipped vehicles to correct this manufacturing error. The one remaining incident was traced to the quality control of a sensor which was actuated apparently by concentrated electromagnetic radiation.

The Alternatives

This section delineates the more plausible alternative courses of action along with their pros and cons. Appendix B contains the formal rule changes that would be required by each alternative and, in conjunction with the foregoing discussion of the issues involved and the following description of the alternatives, is intended to constitute the formal notice of proposed rulemaking as required by the Administrative Procedure Act. While I have attempted to focus on what appear to be the more plausible alternatives, I also want to encourage those with additional suggestions to submit their proposals to me either orally at the public hearing or in writing. I will also be considering the adoption of various combinations or refinements of the alternatives listed below and therefore specifically invite comment on such possibilities.

Alternative I: Continuation of Existing Requirement

Under this alternative, the present three-option version of FMVSS 208, described earlier, would be extended for some period into the future, and research directed toward developing effective passive restraint systems would continue. While the length of the extension is open to discussion, the proposed amendment given in Appendix B is written for a three-year extension -- to August 31, 1979.

Supporters of this alternative would contend that most consumers appear to favor safety belts over passive restraints and that the Federal government should respect this choice. Moreover, safety belt usage is increasing as more comfortable and convenient systems become available. Thus, the present form of FMVSS 208 is working effectively and should not be changed. Many would argue that the Federal government has met its obligation under the Safety Act and to go further would not be consistent with the appropriate Federal role. Supporters would also point out that this option minimizes additional cost to consumers and does not place reliance on what some believe to be the untested technology of passive restraints. They would conclude that the public is assured under this alternative that there will be reliable, relatively inexpensive crash protection systems (e.g., lap and shoulder safety belts) available.

Those opposing this approach would maintain that, in view of low safety belt usage rates, this alternative will not produce the substantial additional safety benefits that would result from the other alternatives. They would view this as a timid approach to highway safety that is inconsistent with the spirit of the Safety Act. While research on passive restraints might continue, this decision would likely signal the end of the availability and further large-scale commercial development of the air cushion restraint system -- a passive protection system that many believe offers considerable safety benefits.

Alternative II: State Mandatory Safety Belt Usage Laws

This approach would also retain the present three-option version of FMVSS 208 for some period of time. Concurrently, the Department of Transportation would propose a new Traffic Safety Standard which would cause the States to adopt and enforce safety belt usage laws or otherwise to achieve a usage level much higher than being experienced today. Pursuant to the 1973 Highway Safety Act, however, Congress would have to enact such a Traffic Safety Standard.

Everyone would agree that this approach is the quickest way to realize substantial safety benefits. Practically all automobiles are now equipped with safety belts while passive restraints, if mandated, would be introduced into the fleet at a rate of about only 10% per year, thus requiring many years before their full benefits could be realized. If a usage rate of 70% could be achieved, proponents argue, the resulting safety benefits would be essentially the same as the more expensive passive systems. They point out that mandatory safety belt usage laws have worked in other countries and, with effective enforcement, levels of usage near 70% have been achieved. Not only would usage laws quickly realize much of the potential safety benefits of safety belts that are now being lost, it is claimed, they would do so at no additional cash cost to consumers. Effectively enforced State mandatory safety belt usage laws, enforced by Federal law, are the most cost-beneficial safety proposal the Federal government could bring about. While supporters of this option would rather achieve these high levels of usage through voluntary actions, they believe it is quite unlikely that usage rates in excess of about 40% could be achieved voluntarily. Thus unless safety belt usage is increased by law, they conclude, the nation will not realize the substantial potential safety benefits seat belts could provide.

Opponents of mandatory usage laws would argue that it is not the Federal government's role to induce States to require a citizen to protect himself. They would view the requirement to "buckle-up" as an invasion of individual liberty and an inconvenience that will not be readily accepted by the American people. Recent Congressional actions rescinding regulations mandating the ignition-interlock system and motorcycle helmet laws, they would argue, demonstrate that the American people are opposed to requirements which substantially interfere with personal behavior in the name of safety. Opponents also would point to NHTSA's lack of success in stimulating mandatory usage laws to indicate the futility of this proposal.

Alternative III: Federal Field Test of Passive Restraints

Under this alternative, the present three-option version of FMVSS 208 would be extended for a period of time while a Federally sponsored field test of passive restraint systems is conducted. The motor vehicle safety data collected in this field test would then be used in formulating a future decision on mandating passive restraints. An adequate field test and evaluation of data could cost from \$50 million to \$150 million and Congressional approval of a supplemental appropriation to NHTSA would be required.

Among the questions posed by such a field test is how passive restraints would be introduced into the automobile fleet. Should manufacturers be subsidized to introduce passive restraints into one or more of their models? Should the government subsidize individual consumers who elect to have passive restraints installed in their cars? Or should the test be conducted by installing passive restraints in government vehicles? Which approach would ensure that an adequate number of test vehicles will be developed?

Supporters of a Federal field test generally believe that while passive restraints may be mandated eventually, there is insufficient data regarding effectiveness and practicability to justify such a requirement at this time. In view of the substantial cost of mandatory passive restraints and the relatively small cost of a field test, they would argue, the Federal government must ensure that these issues are settled before embarking on such a program. Furthermore, a field test will undoubtedly cause further technological development of passive restraints and also reduce the possibility of serious start-up problems in manufacturing if passive restraints are later mandated. The air cushion would remain an available option to consumers under this alternative and the issue of potential air bag hazards would be even more satisfactorily addressed.

This alternative would likely meet opposition from both those in favor of and those opposed to mandatory passive restraints. The former are sufficiently confident of the data available to conclude that a field test is not needed. And, because of the time needed to prepare for, conduct, and evaluate the field test, the purported potential benefits of passive restraints could be delayed for as much as five years. The latter typically argue that there is sufficient data available to show that passive restraint systems do not provide significantly better protection than the lap and shoulder belts -- provided belts are worn -- and yet the passive systems are more costly. Others opposed to a field test believe that a \$50 million - \$150 million expenditure on a field test would be a waste of Federal funds.

Alternative IV: Mandatory Passive Restraints

Under this alternative, FMVSS 208 would be amended to require passive restraint systems for all automobiles manufactured after a given date. The effective date of the amendment would be determined primarily by the amount of lead time needed by automotive manufacturers to comply with the amended standard. The proposed amendment set forth in Appendix B would be effective on August 31, 1979, in time for the 1980 model year.

Among the questions entailed in mandating passive restraints is that of which seating positions should be protected. Because of the relatively low occupancy rates for rear seats and the protection afforded rear seat occupants by the back of the front seat, it is generally agreed that rear seat passive restraints would not be justified. Since all cars have drivers and the average front-seat occupancy is 1.4, providing the driver with a passive restraint system would be the most cost-beneficial action. Also, the technology of the air cushion restraint system is such that a driver-side passive restraint system appears to be relatively easy technologically since the air bag could be stored in the steering wheel column assembly without modification of the rest of the car interior. Protecting all front seat occupants (a "full front" air cushion) would additionally require redesign of the dashboard. With these considerations in mind, the proposed amendment set forth in Appendix B calls for driver-side passive restraints starting August 31, 1979, and full-front passive restraints starting two years later.

This amendment to FMVSS 208 would not become effective until sixty calendar days of continuous session of Congress have passed after its promulgation and only if a concurrent resolution disapproving the amendment is not adopted during that time by both Houses of Congress.

Those favoring this alternative would argue that, in view of the low level of safety belt usage and the limited prospects for increased usage in the future, there is a further "need for motor vehicle safety" as defined by the Safety Act and that a mandate of passive restraints will meet that need. They argue that lives will be saved and injuries will be reduced or avoided at a reasonable cost to consumers. Furthermore, supporters of mandatory passive restraints believe both laboratory simulations and field experience have shown passive restraints to be practicable so that there is no need for additional field data. They would further argue that the additional cost of passive restraints will be mitigated, at least in part, by reduced automobile insurance rates. Finally, they would point out that while comparable benefits could be achieved at lower cost through a higher rate of usage of safety belts, voluntary usage will not reach the requisite levels, and mandatory usage laws are unacceptable to people.

Arguing against this alternative would be those who believe that a mandate of passive restraints would not be in the public interest and would unnecessarily reduce the consumer's freedom of choice. They would claim that experience with passive restraints as an option suggests that consumers prefer the less costly lap and shoulder belts to the air cushion restraint system. Furthermore, they would contend passive restraints, while more costly, would provide no additional safety benefit to those who have been sufficiently interested in personal safety to use their safety belts. The subsidization by seat belt wearers of non-seat belt wearers is claimed to be unfair and contrary to sound public policy. The lack of sufficient field data on the effectiveness, reliability, and feasibility of passive restraints is cited as an additional reason for opposing mandatory passive restraints. Finally, in view of the need for air cushions to be supplemented by lap belts to provide protection in non-frontal crashes, it is argued that air cushions do not constitute a totally passive restraint proposal. The need to buckle a lap belt for complete protection remains, so that personal convenience and actual effectiveness of air cushion passive restraints are overstated.

Alternative V: Mandatory Passive Restraint Option

Here FMVSS 208 would be amended to require that automobile manufacturers provide consumers with the option of passive restraints in some or all of their models. The extent to which the option should be available is open to discussion. The proposed amendment set forth in Appendix B requires, that, within each size class, ^{16/} manufacturers must make this option available in at least one model. Under this proposal, most consumers would be able to obtain passive restraints, if they choose, in a reasonable range of models.

This amendment to FMVSS 208 would not become effective until sixty calendar days of continuous session of Congress have passed after its promulgation and only if a concurrent resolution disapproving the amendment is not adopted during that time by both Houses of Congress.

^{16/} "Size class" refers to the size of the wheelbase conforming to the subcompact, compact, intermediate, standard, and full-size division automobiles.

Those in favor of this option would argue that this alternative would realize the advantages of passive restraint systems for those who choose them while preserving the consumer's freedom of choice. As a consequence, the marketplace would also provide incentives for the further development of occupant crash protection systems to meet the safety needs of consumers at the least cost and inconvenience.

Those opposing this option would argue that the safety benefits of passive restraints would not be realized because consumers would choose the less expensive, less protective, active systems. And the optional nature of passive systems would raise their unit cost even higher, thus further discouraging the purchase of passive systems. They would argue that the marketplace has not in the past and will not in the future adequately provide for society's needs in automotive safety. Some automotive manufacturers have pointed out the potentially burdensome cost of providing this option on numerous models of their cars -- especially if consumers do not exercise the option in large numbers. The extent to which consumers would select optional passive restraints and the unit costs of passive restraints under this alternative are difficult to anticipate.



Hearing Procedures

The hearing will be conducted in a manner comparable to a Congressional hearing, and will be held on Tuesday, August 3, 1976, at the Departmental Auditorium, Constitution Avenue between 12th and 14th Streets, N.W., Washington, D.C. The hearing schedule will be from 9:30 a.m. to 12:30 p.m. and from 2:00 p.m. to 5:00 p.m. We will seek to assure a fair opportunity for proponents of all positions to present their views.

Participants will be permitted a maximum of ten minutes each. Written copies of presentations will be helpful, but are not required. Additionally, written presentation of any interested person, including those who may not have sufficient time to express their full views at the hearing, may be submitted directly to me on or before September 17, 1976 (send to Secretary of Transportation, Washington, D.C. 20590, and indicate FMVSS 208 Hearing on the envelope). These submissions will be available for public inspection and copying from the docket clerk, both before and after September 17, 1976, in the Office of the Assistant General Counsel for Operations and Legal Counsel, Room 10100, Nassif Building, 400 7th Street, S.W., Washington, D.C., from 9:00 a.m. to 5:30 p.m. local time, Monday through Friday, except Federal holidays.

Requests to testify will be accepted from public officials, representatives of recognized civic, public interest, or industry organizations, and concerned and knowledgeable citizens. Time allotments will be governed by the number of requests received; if the requests exceed the available time, we will ask prospective witnesses with similar views to combine their presentations. In the event that accommodation cannot be made, witnesses will be chosen by lot.

Any public official, representative of an organization, or other individual desiring to participate at the hearing should write directly to me at the above address on or before July 12, 1976, providing the following information.

1. Name
2. Business address
3. Telephone number during normal working hours

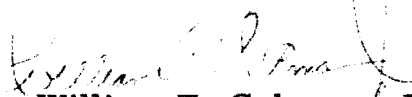
4. Capacity in which presentation will be made (i.e., public official, organization representative, knowledgeable citizen)
5. Principal issue to be addressed (i.e., appropriate Federal role, benefits vs. costs, or public acceptance) and basic position on the issue and the identified alternatives
6. Time desired, which must be ten minutes or less
7. Written copy of presentation, if one is to be submitted

Envelopes should be marked FMVSS 208 Testimony, and may be mailed or hand-delivered to the Executive Secretary, Room 10203, Nassif Building (DOT Headquarters), 400 7th Street, S.W., Washington, D.C.

The public and the press are invited to attend the hearing, which will be transcribed electronically. The transcript and all written submissions will become a part of the record in this proceeding.

The holding of this hearing should not necessarily be viewed as a precedent for the way in which I will handle similar matters in the future.

Issued in Washington, D.C., June 9, 1976.


William T. Coleman, Jr.
Secretary of Transportation

APPENDIX A -- BENEFIT/COST ANALYSIS

This appendix details the analysis that led to the benefits and cost information presented in section II of the basic issues.

I. Societal Cost Base Line

As a base-line condition for the calculations which follow, estimates are made here of (1) the annual number of fatalities and injuries to all passenger car front seat occupants and (2) the associated total societal cost, assuming no restraint system usage. The severity of such injuries are expressed in terms of the Abbreviated Injury Severity Scale (AIS Scale):

<u>AIS Injury Level</u>	<u>Description</u>
1	Minor (e.g. , simple sprain)
2	Moderate (e.g. , simple fracture)
3	Severe (e.g, severe fracture or dislocated major joints)
4	Serious Non-Fatal (e.g. , amputated limbs, severe skull fracture and survivable organ injuries)
5	Critical Non-Fatal (e.g. , major spinal cord injury, critical organ injuries)
6	Fatal

Estimates of the number and distribution of severity of such injuries, derived from recent data, are given below in Table A1.



Severity Distribution of Highway Accident Injuries

<u>AIS Injury Level</u>	<u>Number Per Year</u>	<u>Percentage of Total</u>
1	2,290,000	84.2
2	332,000	12.2
3	54,400	2.0
4	13,600	0.5
5	2,700	0.1
6	27,200	1.0
<hr/>		
Total	2,719,900	

The figures for AIS 4 and 5 may appear anomalous with respect to AIS 6 (fatal); these values result because of the definitions of the AIS injury levels.

Using estimates of the societal cost per injury at each level of severity, we can calculate the annual societal cost of injuries. The results are shown below in Table A2.

Table A2Societal Costs of Highway Accident Injuries and Deaths*

<u>AIS Injury Level</u>	<u>Annual Society Cost</u> <u>(Millions of \$)</u>
1	710
2	740
3	310
4	1,140
5	510
6	7,790
<hr/>	
Total	11,200

*A 7% discount rate has been used for long-term societal costs or benefits.

These figures demonstrate the magnitude of the highway safety problem -- over \$11 billion per year in societal costs due to passenger car occupant injuries and deaths alone. This table also shows the importance of protection at higher severity levels if we are to achieve major safety improvements.

II. Benefits

To determine the benefits that result from a particular crash protection system, both the effectiveness of the system in reducing or avoiding injuries (when used) and the rate of usage must be known.

II.1 Occupant Crash Protection System Effectiveness

Available field data do not provide a definitive basis for estimating the effectiveness of all existing occupant crash protection systems. However, results of engineering tests involving animals, cadavers, and human volunteers, subjected to crashes under a variety of controlled test conditions, do provide a basis for estimating the relative effectiveness of alternative systems. Using the most extensive field test results available (i.e., those for lap and lap-and-shoulder belt systems), taken together with the relative effectiveness estimates from laboratory data, one can construct the table of occupant crash protection system effectiveness estimates shown below in Table A3.

Table A3

Occupant Crash Protection System Effectiveness Estimates

<u>AIS Injury Level</u>	<u>Lap Belt</u>	<u>Lap and Shoulder Belt</u>	<u>Air Cushion</u>	<u>Air Cushion and Lap Belt</u>	<u>Passive Belt and Knee Bolster</u>	<u>Knee Bolster</u>
1	.15	.30	0	.15	.20	.10
2	.22	.57	.22	.33	.40	.15
3	.30	.59	.30	.45	.45	.20
4-6	.40	.60	.40	.60	.50	.25

These effectiveness numbers mean that, at a given injury severity level, a particular protection system will reduce injuries of that severity (from that which would occur with no protection) by a fraction whose numerical value equals the effectiveness number -- e.g., a lap and shoulder belt reduces the number of fatalities (AIS 6) by an estimated 60 percent.



Multiplying these effectiveness numbers by the number of occurrences from Table A1 or the societal cost given in Table A2 gives the total effectiveness at 100% usage. The latter is more appropriate as it more accurately reflects the impact of a system and also will be useful in calculating benefit/cost ratios. These results are shown below in Table A4.

Table A4

Occupant Crash Protection System Benefits at Theoretical 100% Usage

AIS Injury Level	Lap Belt	Lap and Shoulder Belt	(In Millions \$)		Passive Belt and Knee Bolster	Knee Bolster
			Air Cushion	Cushion and Lap Belt		
1	110	210	0	110	140	70
2	160	420	160	240	300	110
3	90	190	90	140	140	60
4	460	680	460	680	570	280
5	200	310	200	310	250	130
6	3,120	4,670	3,120	4,670	3,890	1,950
Total	4,140	6,480	4,030	6,150	5,290	2,600

The results in Table A4 show the maximum possible benefits of the various protection systems listed. If the actual usage rate is less than the theoretical limit of 100%, the benefits are reduced commensurately.

II.2 Occupant Crash Protection Usage

Estimates of active belt systems benefits will be made using two different projections for rates of voluntary usage. The nominal projection assumes 15% usage of lap and shoulder belt combinations and an additional 5% usage of the lap belt only. The other "optimistic"

projection assumes 35% usage of lap and shoulder belt combinations, plus 5% lap belt only. The nominal projection is believed to correspond to usage rates that will be experienced in practice and should represent a lower bound for usage rates in the future. The optimistic projection is thought to represent the likely upper limit of belt usage in the absence of mandatory seat belt use laws.

In calculating the benefits of air cushion restraint systems, we assume a 98% rate of readiness for air bags and a 20% rate of safety belt wearing. For passive belts, a 60% usage rate is assumed (e.g., a 40% "system defeat rate").

Mandatory seat belt use laws are assumed to result in a use rate of 70% for lap and shoulder belts.

Finally, in calculating the benefits for a situation in which both air cushions and lap-and-shoulder belts were available -- such as with a mandatory passive restraint option -- we shall assume that air bags are in 5%, 10%, and 25% of the cars with the remainder of the cars having lap-and-shoulder belts. The lap belt usage rate with air bags is taken to be 20% as is the usage rate for lap and shoulder belts.

III.3 Comparison of Benefits

Table A5 compares the estimated (steady state) annual savings -- in terms of lives saved, injuries reduced or avoided, and societal costs -- if all vehicles are equipped with the various protection systems indicated.

Table A5Annual Benefits of Occupant Crash Protection Systems

<u>System</u>	<u>Fatalities Saved</u>	<u>Injuries Avoided or Reduced</u>	<u>Societal Benefits (Billions of \$)</u>
15% lap and shoulder 5% lap only	3,000	159,300	1.18
35% lap and shoulder 5% lap only	6,300	342,600	2.48
70% lap and shoulder	11,500	641,400	4.55
Air Cushion and lap belt			
full front	11,200	171,800	4.23
driver only	9,200	168,600	3.44
Passive belt and knee bolster	8,200	373,300	3.62
Mandatory Option			
5% Air Cushion	3,400	182,700	1.36
10% Air Cushion	4,100	182,100	1.60
25% Air Cushion	5,400	180,300	2.06

III. Benefit/Cost Ratios

Table A6 presents a set of benefit/cost ratios derived from the benefit data in Table A5 and from estimates of total incremental life cycle costs shown in Table A7.

Table A6

Benefit/Cost Ratio of Occupant Crash Protection Systems

<u>System</u>	<u>Low</u>	<u>Benefit/Cost*</u>	<u>High</u>
		<u>NHTSA</u>	
15% lap and shoulder 5% lap only	2.4	2.0	1.7
35% lap and shoulder 5% lap only	5.0	4.1	3.5
70% lap and shoulder	9.1	7.6	6.5
Air Cushion and lap belt full front	4.2	2.2	1.2
driver only		3.1	1.7
Passive belt and knee bolster	-	4.0	-
Mandatory Option			
5% Air Cushion	-	1.8	-
10% Air Cushion	-	1.7	-
25% Air Cushion	-	1.5	-

*Assumes 10 million new cars per year.

Table A7Cost of Occupant Crash Protection Systems*

	<u>Low</u>	<u>Cost NHTSA</u>	<u>High</u>
Lap belt		30	
Lap and shoulder belt	50	60	70
Driver only Air Cushion		110	200
Full-front Air Cushion	100	190**	350
Passive belt and knee bolster		90	

* This does not include the cost of lap belts for rear seat occupants -- typically about \$20 per car.

**This assumes all cars would be equipped with the air cushion. If air cushions are to be offered as an option, a very rough estimate of the cost is taken to be twice this price.

It is useful in comparing the advantages of various alternatives, to compute the incremental benefits and costs -- e.g., the additional benefits and costs relative to the current state of affairs. Forming the ratio of the incremental benefits and costs gives an indication of the relative merits of the different alternatives. These results, using NHTSA's cost estimates, are shown below in Table A8.

Table A8

Incremental Benefit/Cost Ratio of Occupant Crash Protection Systems

<u>System</u>	<u>Incremental Benefit/Cost</u>
35% lap and shoulder 5% lap only	Infinite*
70% lap and shoulder	Infinite*
Air Cushion and lap belt full front	2.4
driver only	4.5
Passive belt and knee bolster	8.1
Mandatory Option	
5% Air Cushion	1.1
10% Air Cushion	1.3
25% Air Cushion	1.1

* This infinite value results as the incremental cost of this option is zero. This, of course, ignores the costs of enforcement and the time people spend "buckling up".

All of the discussion of benefits and cost presented to this point has focused on the steady state, or equilibrium condition -- i.e., that situation expected to exist long after a particular system has been put into effect. If one examines the transition period after a new protection system is mandated, one finds that while the full annual costs are realized immediately, the benefits are realized in increments of roughly 10% per year. Thus it takes a period of time for the cumulative benefits to exceed the cumulative costs -- even for a system whose steady-state benefit/cost ratio exceeds unity by a sizeable amount. Depending upon the cost figures used, for example, it would take 5 to 7 years before a mandatory passive restraint requirement would break even.

APPENDIX B -- FORMAL RULE CHANGES

PART I

In consideration of the foregoing, it is proposed that Standard No. 208 (49 CFR 571.208) be amended in accordance with one of five alternatives as follows:

ALTERNATIVE I

The dates "August 31, 1976" and "August 15, 1977" would be changed to read "August 31, 1979" wherever they appear in S4.1.2, S5.3, S6.2, and S6.3.

ALTERNATIVE II

The dates "August 31, 1976" and "August 15, 1977" would be changed to read "August 31, 1979" wherever they appear in S4.1.2, S5.3, S6.2, and S6.3.

ALTERNATIVE III

The dates "August 31, 1976" and "August 15, 1977" would be changed to read "August 31, 1979" wherever they appear in S4.1.2, S5.3, S6.2, and S6.3.

ALTERNATIVE IV

1. S. 4. 1. 2 would be amended to read:

S4.1.2 Passenger cars manufactured from September 1, 1973, to August 31, 1981. Each passenger car manufactured from September 1, 1973, to August 31, 1979, inclusive, shall meet the requirements of S4.1.2.1, S4.1.2.2, or S4.1.2.3. Each passenger car manufactured from September 1, 1979, to August 31, 1981, inclusive, shall meet the requirements of S4.1.2.1, S4.1.2.2, or S4.1.2.3, except that it shall meet the requirements of S4.1.3 at the driver's position. A protection system that meets the requirements of S4.1.2.1 or S4.1.2.2 may be installed at one or more designated seating positions of a vehicle that otherwise meets the requirements of S4.1.2.3.

2. A new S4.1.3 would be added to read:

S4.1.3 Passenger cars manufactured on or after September 1, 1981. Each passenger car manufactured on or after September 1, 1981, shall --

(a) At each front designated seating position meet the frontal crash protection requirements of S5.1 by means that require no action by vehicle occupants;

(b) At each rear designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 and to S7.1 and S7.2; and

(c) Either --

(1) Meet the lateral crash protection requirements of S5.2 and the roll-over crash protection requirements of S5.3 by means that require no action by vehicle occupants; or

(2) At each front designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 and to S7.1 through S7.3A, and meet the requirements of S5.1 with front test dummies as required by S5.1, restrained by the Type 1 or Type 2 seat belt assembly (or the pelvic portion of any Type 2 seat belt assembly which has a detachable upper torso belt) in addition to the means that require no action by the vehicle occupant.

3. The dates "August 31, 1976" and "August 15, 1977" would be changed to read "August 31, 1979" wherever they appear in S5.3, S6.2 and S6.3.

ALTERNATIVE V

1. S4.1.2 would be amended in part to read:

S4.1.2 Passenger cars manufactured from September 1, 1973, to August 31, 1981. Each passenger car manufactured from September 1, 1973, to August 31, 1979, inclusive, shall meet the requirements of S4.1.2.1, S4.1.2.2, or S4.1.2.3. Each passenger car manufactured from September 1, 1979, to August 31, 1981, inclusive, shall meet the requirements of S4.1.2.1, S4.1.2.2, or S4.1.2.3, except that, upon the prospective purchaser's offer of purchase and specification of passive restraint as described by S4.1.3, a passenger car shall meet the passive restraint requirements of S4.1.3 at the driver's position, unless its manufacturer produces a passenger car of a different model

with passive restraint protection that has a wheelbase which falls within the same wheelbase range as the requested vehicle, based on the wheelbase ranges specified in (a) through (e). A protection system that meets the requirements of S4.1.2.1 or S4.1.2.2 may be installed at one or more designated seating positions of a vehicle that otherwise meets the requirements of S4.1.2.3.

- (a) The wheelbase range that is 100 inches or less.
- (b) The wheelbase range that is more than 100 inches and less than 110 inches.
- (c) The wheelbase range that is 110 inches to 120 inches.
- (d) The wheelbase range that is more than 120 inches but less than 123 inches.
- (e) The wheelbase range that is 123 inches or more.

2. A new S4.1.3 would be added to read:

S4.1.3 Passenger cars manufactured on or after September 1, 1981. Each passenger car manufactured on or after September 1, 1981, shall meet the requirements of S4.1.2.1, S4.1.2.2, or S4.1.2.3 of S4.1.2, except that, upon the prospective purchaser's offer of purchase and specification of passive restraint as described in (a) through (c), a passenger car shall --

(a) At each front designated seating position meet the frontal crash protection requirements of S5.1 by means that require no action by vehicle occupants:

(b) At each rear designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 and to S7.1 and S7.2; and

(c) Either --

(1) Meet the lateral crash protection requirements of S5.2 and the roll-over crash protection requirements of S5.3 by means that require no action by vehicle occupants; or



(2) At each front designated seating position have a Type 1 or Type 2 seat belt assembly that conforms to Standard No. 209 and to S7.1 through S7.3A, and meet the requirements of S5.1 with front test dummies as required by S5.1, restrained by the Type 1 or Type 2 seat belt assembly (or the pelvic portion of any Type 2 seat belt assembly which has a detachable upper torso belt) in addition to the means that require no action by the vehicle occupant. However, a passenger car need not meet the requirements of (a) through (c) if its manufacturer produces a passenger car of a different model that has the passive protection described in (a) through (c) and that has a wheelbase which falls within the same wheelbase range as the requested vehicle, based on the following wheelbase ranges: 100 inches or less; more than 100 inches and less than 110 inches; 110 inches to 120 inches; more than 120 inches but less than 123 inches; and 123 inches or more.

(3) The dates "August 31, 1976" and "August 15, 1977" would be changed to read "August 31, 1979" wherever they appear in S5.3, S6.2, and S6.3.

(Sec. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); Sec. 109, Pub. L. 93-492, 88 Stat. 1470 (15 U.S.C. 1410(b))

It is hereby certified that the economic and inflationary impacts of these proposed regulations have been carefully evaluated in accordance with Office of Management and Budget Circular A-107.

PART II

In consideration of the foregoing, if Alternative II is to be implemented, in addition to the proposed change to Standard No. 208 (49 CFR 571.208) set forth above with respect to Alternative II, Highway Safety Program Standard No. ___ (23 CFR Part 1204) is hereby proposed as follows:

I. Scope. This standard establishes minimum requirements for a State highway safety program for safety belt use.

II. Purpose. The purpose of this standard is to establish State safety belt use programs which will significantly reduce highway deaths and injuries and resultant societal costs.

III. Definition. For the purpose of this standard, "safety belt" means a lap belt, shoulder belt, or other belt or combinations of belts designed to be installed in any motor vehicle to restrain the operator and any passengers in the vehicle during motor vehicle crashes or other sudden decelerations.

IV. Requirements

A. Each State shall develop and maintain a safety belt use program to achieve, within three years after the date of the issuance of this standard, a statewide safety belt use rate of at least 70 percent by occupants of motor vehicles which have been required by Federal regulation to be equipped initially with safety belts and which are operated on the public streets, roads or highways of the State.

B. Annually, beginning one year after the issuance of this standard, each State shall conduct a road-side survey providing a sufficient number of representative observations to estimate reliably the statewide safety belt use rate. The survey plan and methodology shall be decided cooperatively by each State and the National Highway Traffic Safety Administration.

V. Supplemental components. Each State shall adopt such of the following measures as appear necessary to attain the safety belt use rate specified in section IV:

A. Safety belt use law and enforcement program. A State safety belt use law shall be enacted and enforced that --

1. Requires the use of safety belts by the occupants of motor vehicles which are in operation on the public streets, roads or highways of the State;

2. Exempts any person or class of persons from the law's requirements upon finding that requiring such person or class of persons to use safety belts would be unreasonable; and

3. Provides a fine for a violation equivalent to a fine for a minor moving traffic law offense.

B. Safety belt use educational program. An educational program shall be designed and implemented to encourage safety belt use and to inform the citizens of the State about the individual and societal benefits of safety belt use, including:

1. A public information program;

2. An elementary and secondary school program; and

3. In-service training for State and local personnel directly involved in the development and maintenance of the safety belt use program.

C. Safety belt installation and maintenance law. A State safety belt installation and maintenance law shall be enacted that requires that (1) no person shall operate any motor vehicle on the streets, roads and highways of the State unless each of its seating positions is equipped with the same number of safety belts with which it was required by Federal law or regulation to be equipped at the time of the vehicle's manufacture and all of the safety belts with which it is required by State law or regulation to be equipped; and (2) no person shall wholly or partially remove or disconnect any safety belt that was required by Federal law or regulation to be installed in a motor vehicle at the time of the vehicle's manufacture, or that is required by State law or regulation to be installed in a vehicle, except temporarily for cleaning, repair, or replacement with equivalent or improved safety belts.

(Sec. 101, Pub. L. 89-564, 80 Stat. 731, 23 U.S.C 402)