SB

163

SB 163 TITLE & SPONSOR SUMMARY 10:58 6/27/83 PAGE 1 OF

AMENDED TITLE:
AN ACT RELATING TO THE USE OF CHILD SAFETY DEVICES IN MOTOR VEHICLES;
AND PROVIDING FOR AN EFFECTIVE DATE

PRIME SPONSOR: FISCHER,V. .
CO-SPONSORS: MOSS, JOSEPHSON, STURGULEWSKI, RODEY.
CURRENT STATUS. 5/03/83 IN (S) RULES

SB 163 SENATE ACTION 10:58 6/27/83 PAGE 2 OF

DATE	SEQ	PAGE	LEGISLATIVE ACTION
03/08/83	01	0339	FIRST READING -- COMMITTEE REPORTS
04/22/83	02	0732	TRAN -- CS01, NR03
05/03/83	03	0977	JUD -- TRAN CS01, NR03
			RULES
****	**	**	*** *** ***

CS for Senate Bill No. 163

"An Act relating to the use of child safety devices in motor vehicles; and providing for an effective date."

Background:

More Alaskan children are killed or injured in car accidents than any other single disease or type of accident. The Alaskan accidental mortality rate is 105% higher than tne rest of the United States; and 40% of these deaths are due to car accidents. National statistics have shown that the majority of deaths and injuries to children resulting from car accidents could be prevented if parents would "buckle up" their children.

Position:

The Department believes that the protection afforded children under this bill is weakened by excluding taxicabs and commercial vehicles. Taxicabs are used primarily for short city driving. Most injuries to children in cars occur in short stop-and-go driving.

Since the focus of this law is to encourage utilization of approved chil' restraints, the Department recommends that there be a designated minimum fine; and that the fine be sufficiently high enough to encourage violators to purchase a car seat rather than pay the fine.

In addition, the Department believes that this Bill will be enhanced if support is provided for community education programs and car seat loaner programs. Community education programs are important to insure that citizens understand the benefit of child passenger restraints. This support could be ensured by designating a State agency such as the Office of Highway Safety of the Division of Public Health to be responsible for the preparation and dissemination of information regarding child passenger restraints.

Assisting communities in starting car seat loaner programs could be accomplished by providing seed money to those communities without existing loaner programs. Since most of the larger communities (Anchorage, Fairbanks, Juneau, Sitka) currently have loaner programs, seed money would only need to be available for smaller communities that have extensive street systems or that are on the highway system.

Recommended By: E. S. Rateau

E.S. Rateau, M.D., Director
Division of Public Health

Date: May 1, 1983

Approved By: for John R. Smith

Robert London Smith, M.D.,
Commissioner, Department of
Health & Social Services

Date: May 6, 1983

STATE OF ALASKA
FISCAL NOTE | Revision Date , 1983 |

I. REQUEST

Bill/Resolution No.: CSSB 163 (Transportation)
Title: Child safety devices in motor vehicles
Sponsor: Sen. Fischer, et al
Requestor: Senate Transportation Comm.

II. FISCAL DETAIL

Agency Affected: Health & Social Services
Program Category Affected: Health
BRU, Program of Subprogram(s) Affected:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING	0	0	0	0	0	0
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LANDS & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER (Specify Source)	0	0	0	0	0	0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

IV. ANALYSIS: Attach a separate page for any Analysis

Prepared By: Vernellia Randall Phone: 465-3100
Division: Public Health Date: 5-2-83

Approved by Commissioner: Date: 5/6/83
Department: Health and Social Service

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3/8/83

STATE OF ALASKA
FISCAL NOTE

Revision Date , 1983

I. REQUEST

Bill/Resolution No.: SB 163
Title: Use of Child Restraints
Sponsor: Sen. V. Fischer
Requestor: Sen. Transportation

II. FISCAL DETAIL

Agency Affected: Public Safety
Program Category Affected: Life & Prop Prote
BRU, Program of Subprogram(s) Affected:
Highway Safety Planning Agency

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC						
TOTAL OPERATING		-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

IV. ANALYSIS: Attach a separate page for any Analysis No Fiscal Impact Anticipated

Prepared By: Paul Conger
Phone: 465-4338
Division: Administrative Services
Date: 3/16/83

Approved by Commissioner: [signature]
Date: 3/23/83
Department: Public Safety

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3/2/83

Alaska State Legislature

SENATOR
H. PAPPY MOSS
P.O. BOX 182
DELTA JUNCTION, ALASKA 99737
(907) 895-4384

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JUNEAU, ALASKA
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State Senate

MEMORANDUM

Date: April 20, 1983

Subject: Back-up for April 21, 1983 Committee Meeting

To: All Committee Members
Senate Transportation Committee

From: Senator H. Pappy Moss, Chairman
Senate Transportation Committee

As you know, SB 10,"An Act relating to the Alaska Railroad; and providing for an effective date", is scheduled for our Thursday, April 21, meeting. The purpose for this meeting is to provide a forum for a discussion on the status of the transfer. In this regard, Mr. Mark Hickey, DOT/PF, will be on hand to brief the committee on the current status.

In addition, CSSB 163, "An act relating to the use of child safety devices in motor vehicles; and providing for an effective date", will be reconsidered. A committee substitute has been drafted and a copy of that draft is attached for your consideration.

Senator Vic Fischer
Alaska State Legislature
Pouch V • Juneau, Alaska 99811 • (907) 465-4954

March 31, 1983

To: Russ Josephson
LAA Legal Services

From: Ginger Baim, Aide to
Senator Vic Fischer

Re: Senate Transportation committee substitute (SB 163)
drafting request

After hearing testimony on SB 163 before the Senate Transportation committee last week, it was decided that I should work out a committee substitute with the transportation committee aide, and staff members from Senator Faiks and Representative Clocksin's office to address problems and issues raised during the hearing.

Changes that should be incorporated in the committee substitute include:

1. Line 12, after vehicle, strike "other than an emergency vehicle or a bus".

2. Add a section that says (1) and (2) do not apply if:

- the motor vehicle being driven is a mass transit vehicle, school bus, taxi cab or other commercial vehicle.

- motor vehicle is designed for off highway use.

- all passenger seats equipped with seatbelts are occupied by passengers required to be restrained under this act.*

3. Add a section in the appropriate place with the following language: "The commissioner of public safety may exempt a child or class of children from the requirements of this section if the Commissioner of Public Safety determines that the use of the child restraint system required under (a) of this section is impratical because of physical unfitness or medical problem. The commissioner of Public Safety may specify alternate means of protection for children exempted under this subsection.

4. Change (b) to read "A person convicted of a violation of (a) of this section is guilty of an infraction". (provide otion for forfiture of bail - see traffic forfiture bail sections.)

5. (c) should be changed so that the infraction is treated in the same manner as an equipment violation. This section should require that dismissal of the citation, under equipment violation provisions, can only be applied to the first infraction. In addition, the section should provide for proof of purchase or acquisition and installation of the device.

6. CSSB 163 should contain language that prevents or penalizes persons who have removed passenger seats or restraining devices for the purposes of avoiding the provisions of this act. The committee recognizes that some Alaskans remove passenger seats in their vehicles to prepare them for "multiple use". (i.e. removing seats in a van so that it can double as a pick-up truck). It is not the intention of the committee to prevent or penalize citizens for doing this. It is, however, their intention that vehicle operators should be prevented from removing seatbelts from passengers seats to avoid prosecution under this act. I leave it to your discretion in developing lang to deal with this problem.

Please call me at 4554, should you have any questions in preparing this draft.

---

* We have been unable to locate federal laws or regulations that require seat belts for each passenger seat. The federal regulations we do have appear to require seat belts for only the driver and the front passenger seat. It was the decision of the committee that SB 163 should not require installation of seat belts in addition to those required for passenger cars under existing state and federal law.

Therefore, SB 163 should require that all available seatbelts or restraining devices (other than the drivers seat) must be occupied by children before they are occupied by adults.

cc: Jan Rice, Rep. Clocksin's office
Sandy Stone, Sen. Faiks' office
Clyde Stoltzfus, Senate Transportation Committee
David Hawes, DOTPF

American Academy of Pediatrics

Alaska Chapter

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Clinton B. Lillibridge, M.D.
4001 Dale Street, Suite 213
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Box 7-741
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In support of Senate Bill 163
and House Bill 262

WHY DOES ALASKA NEED TOUGH CHILD PASSENGER SAFETY LEGISLATION?

1. THE GREATEST KILLER of KIDS is the CAR/TRUCK

   a. More children are killed by motor vehicles than by the next two greatest killers combined--more than birth defects, congenital heart lesions, brain malformations, leukemia, cancer, etc. together.

   b. Children under age 6 are PHYSICALLY more susceptible to HEAD INJURY. Twenty-five percent of children's weight is in their head (compared to 9 percent for adult). When the vehicle slows suddenly, the child is thrown HEADFIRST into the dashboard like an arrow. The child's SKULL is more FRAGILE, and BRAIN DAMAGE occurs more easily.

2. WOULD INTENSE EDUCATION ACHIEVE GOOD RESULTS?

   a. No. Several other states have spent hundreds of thousands of dollars on TV, newspaper, pediatric office teaching, etc. with NO MEASURABLE DIFFERENCE IN USAGE or death rate, because young people (parents) naively believe accidents always happen only to other people.

3. WOULD A TOUGH LAW INCREASE USAGE and SAVE LIVES?

		Pre-Law	With Law
Yes.	Massachusetts Usage:	14%	70%

		Pre-Law	With Law
Yes.	Tennessee:	12 deaths/year	1 death/year

Yes. Washington: Death rate over 10 years and 39,600 accidents is 13 times greater for children riding loose than restrained.

Clinton B Lillibridge MD

American Academy of Pediatrics

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3300 Providence Drive, Suite 206
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SUGGESTION FOR A BILL

For an Act entitled: "An Act relating to child passenger protection."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS28.35 is amended by adding a new section to read:

Sec. 28.35.246. CHILD PASSENGER PROTECTION. (a) Every driver transporting a child under the age of five (5) years in a motor vehicle and operated within the State of Alaska shall provide for the protection of the child by properly securing each child according to manufacturer's instructions, in a child passenger restraining system meeting applicable federal motor vehicle safety standards as follows:

(1) Any child unable to sit upright unaided in a child restraint system which meets the standards prescribed in 49 C.F.R. 571.213.

(2) Any child who is able to sit upright unaided less than five (5) years of age, when transported in the front seat, in a child restraint system which meets the standards prescribed in 49 C.F.R. 571.213.

(3) Any child who is able to sit upright unaided less than five (5) years of age, when transported in the rear seat, in a child restraint system which meets the standards prescribed in 49 C.F.R. 571.213, unless the child is secured by a safety belt provided in the motor vehicle.

(b) This section does not apply if (1) the motor vehicle being driven is a mass transit vehicle, school bus, taxicab, moped, motorcycle, or other motor vehicle not required to be equipped with safety belts under 13. A.A.C. 04.270 or federal law or regulations, (2) all seat belts are occupied by passengers.

(c) The Commissioner of Public Safety may exempt a child or class of children from the requirements of this section if the Commissioner of Public Safety determines that the use of the child restraint system required under (a) of this section is impractical because of physical unfitness or medical problem. The Commissioner of Public Safety may specify alternate means of

protection for children exempted under this subsection.

(d) A person who violates this section is guilty of an infraction.

(e) Violators of this section shall be guilty of an infraction and shall be fined not to exceed $50.00. A person found in violation of this section may, instead of paying a fine, submit proof of purchase subsequent to violation or rental for not less than one (1) year, of an approved infant or child restraint system to the Court. This shall be acceptable only for first violations and if the acquisition of the restraint system was subsequent to the violation. Points shall be assessed for violation of this section as prescribed under 13 AAC 08.210.

northern alaska health resources association, inc.

April 7, 1983

The Honorable Pappy Moss
Alaska State Senate
Pouch V
Juneau, Alaska 99811

Dear Senator Moss:

I am writing on behalf of the Northern Alaska Health Resources Association (NAHRA) in support of SB 163, "An act relating to the use of child safety devices in motor vehicles."

Accidents are the leading cause of death and disabling injury of young Alaskans. Motor vehicle accidents have especially severe impact on young children, who are often injured by being thrown around inside a vehicle or through a windshield. Because of the significance of accidents in the mortality of young children, NAHRA has as one of its major objectives, "to reduce the accidental death rate of children aged 1-4 years (44.2/100,000), by 1990."

As a strategy to address this objective, NAHRA is assisting the Fairbanks Health Center, Fairbanks Memorial Hospital, and other concerned organizations to establish an infant car seat safety program in Fairbanks. SB 163 would provide the authority necessary to enforce use of car seats in Fairbanks and throughout the state. Through this effort, several young lives may be saved each year.

We urge your support of SB 163.

Sincerely,

Chas M. Kaltenbach for

J.B. Carnahan
President

JBC/sem

529 5th avenue, suite 8 fairbanks, alaska 99701 telephone (907) 456-2553

CHILD PASSENGER PROTECTION
A Guide for State Legislation

Prepared by Annemarie Shelness

Introduction

To date (April, 1982), ten states have enacted laws requiring small children riding in cars to be restrained in special safety seats. (Some states permit use of standard belts as an option to special child restraints). Many more states will be considering similar bills in the near future (Appendix I).

The components of these bills vary considerably. For example, upper age limits range from two to five; belt use is allowed in some states, but not in others. There are no sound reasons for these variations.

The inconsistencies and contradictions which exist in the statutes now on the books or about to be voted on have lead to confusion on a number of important factors:

- Up to what age should children be protected?
- What is the best means of protection?
- Should belt use be permitted as opposed to special restraints only?
- Should only parents and guardians be made responsible for the child's safety or should the law apply to any person operating the vehicle in which the child is traveling?
- How about parents on public assistance?
- What should be the policy when the number of small children in the family exceeds the number of belts in the vehicle?
- How can the law be enforced?

These and other aspects must be addressed when bills are drafted.

It has become increasingly evident that there is need for a "Model" child passenger protection law to serve as a guide for states to follow. The succeeding pages contain carefully documented recommendations and explanations intended to assist legislators in formulating a sound child passenger protection bill.

The Problem

Motor vehicle accidents rank as the leading cause of death and injury in childhood once the critical early period has passed. In the last decade alone, almost 10,000 children under the age of five lost their lives as passengers in automobiles (1). Of the hundreds of thousands injured, many are left with permanent disabilities, mental and/or physical.

Unrestrained children can also be the cause of accidents by distracting the driver (2). Furthermore, fatal injuries occur as the result of children falling out of cars in *non*-crash situations (3).

The Remedy

Seat belts have long been recognized as the single, most effective safety device available. It has also been shown that the majority of deaths among children could be prevented and the severity of injuries reduced through the use of appropriate restraining devices (4,5,6).

What experts view as "appropriate" for children will be dealt with later.

How Can Child Restraint Use be Encouraged?

The number of children riding adequately protected is, unfortunately, small (7). While educational programs have been shown to increase protection (8), it is believed that legislation, combined, of course, with public information, brings about the quickest results. In Tennessee, where a child passenger protection law has been in force since 1978, restraint utilization has tripled (9).

Up to What Age Should Protection Be Mandated?

Restraint use should be mandated for all motorists, regardless of age, as has been done in 28 countries or provinces across the world (10).* At the very least, belt use should be required for all minors. The fatalities in the late teens are more than 10 times higher than among children 0-3 (11).

As a matter of political expediency, the emphasis in the U.S. is for the present being placed on protecting the very young. It has been found that legislators are more receptive to mandating protection for small children than for adults or even school-age children. It would seem desirable as well as feasible, however, to include the pre-teen years when parents are still largely in control of their youngsters' activities.

Age four developed as a natural cut-off point because special restraints are the preferred means of protection until then (12,13). It should be borne in mind that some children exceed manufacturers' specified height and/or weight limits even before reaching their fourth birthday. A law that does not allow belt use must therefore specify maximum weight and height limits rather than age alone. For the majority of devices on the market these are 40 pounds and 40 inches, respectively.

*Ironically, children are excluded from these laws. Only Australia and the Canadian province of Saskatchawan now require that children ride restrained. Eight Europeans countries require, that children ride in the back seat.

What Are the Objections to Child Restraint Laws?

There are two major problems of which proponents of legislation must be aware. One concerns the expenditure involved in providing restraining devices. This can be a critical issue for low-income families, especially where there are several children under the age of four who would require special restraints.

Difficulties also exist with nursery school car pooling. Securing several children in safety seats is a formidable task if it is to be done correctly. It is therefore not only possible but even probable that many seats would be improperly secured. This applies particularly to those requiring top anchor straps. These seats can only be used in cars equipped with anchor brackets (14). Omitting the use of the top anchor strap greatly reduces the protective potential of these seats.

Allowing the use of lap belts as an alternative to special restraints would eliminate the problems just described, and ensure an acceptable level of protection where in all too many instances none would be provided.

What Is the Best Way of Protecting Young Children?

Ideally, children under the age of four should be using special restraints capable of distributing crash forces over a large area of the body. It is important to note, however, that there is nothing significant about this cut-off age. [Only infants up to 12 months have been shown to be particularly vulnerable in crashes (15).] It simply amounts to the fact that few devices will accommodate children above that age.

While special child restraints represent the "ideal" means of protecting the very young, it is believed that mandating special restraints only will not have the best possible yield in terms of the overall number of children riding effectively protected.

Should State Laws Permit the Use of Seat Belts?

Although special child restraints, providing they are used correctly, are certainly the preferred means of protection up to age four, the answer to the question is an emphatic "yes" (16, 17). Dr. John W. Melvin, Head of the Biomechanics Department, Highway Safety Research Institute, University of Michigan, who conducted in depth investigations of crashes involving small children (5,6), strongly supports a belt option:

> "State legislation should permit children over the age of one year to use lap belts in the rear seat if no child restraint is available. There is, however, no suitable alternative to a child restraint for an infant. The primary objective, of course, is to prevent ejection. National Crash Severity Study (NCSS) data indicate that a fatality is over 50 times more likely to occur if an occupant is ejected than if s/he is not."

There are a number of reasons use of standard seat belts should be permitted as an alternative to special child restraints once the child can sit up unaided:

1) It can by no means be taken for granted that all parents will obey the law. Even in Tennessee, three years after the law went into effect, the compliance rate is only 30 per cent (9). Although this figure represents a highly significant increase of 200 per cent over pre-law days, 70 per cent of Tennessee's small children continue to ride unprotected.

2) All too often children's restraining devices are used improperly. Depending on the manner of misuse, the device will offer reduced protection or possibly none at all.

The misuse rate can be as high as 75 per cent (7), and has been shown to exist even among highly motivated parents (18).

3) Many low-income families and even families in comfortable circumstances, but living in cities, may not own cars. On the few occasions a car is being used, it would certainly be more likely that the child would be buckled into a belt (providing the law permitted this) than that the parent spend in excess of $40 for a device that will be used only occasionally.

4) Most importantly, the public should not be given the impression that the use of special car seats is unrelated to the function performed by safety belts. Yet this is what publicity for child restraint use is, unfortunately, accomplishing: Once special restraints are no longer used, children can be found riding loose. In fact, often one car will contain a number of children of whom only the little ones are riding protected. Observational studies confirm that restraint use drops sharply after one year of age (7).

Based on many years of experience in promoting child restraint use, PAS does not believe that allowing the use of lap belts would discourage parents from purchasing and using safety seats. These seats are popular because they raise the child up to window height, an important factor in child contentment. Small children sitting on the seat of the vehicle cannot see out.

It is expected, however, that by allowing lap belts as an alternative to child restraints, the overall number of children riding protected would increase. Furthermore, such a belt option could well result in belt use by older children not covered by the law.

Are Not Belts Dangerous for Small Children?

Belts can cause injuries both in children *and* adults, but this occurs only in very severe crashes. Whenever such injuries are reported, it is stressed that unbelted, serious or fatal injuries would have occurred instead (18). It has also been shown that incorrect wearing of belts can be responsible for injuries (19).

Children who are unrestrained almost invariably sustain head injuries which can be fatal or leave them with irreversible brain damage, whereas a fractured pelvis will heal. Spinal injuries are extremely rare.

Belts may be safer even than improperly used child restraints. For example, seats requiring a top anchor strap are often used with the strap left unsecured (20). In 30 m.p.h. sled tests recently conducted at the University of Michigan Highway Safety Research Institute, employing a dummy simulating the physical characteristics of the average three-year-old child, the head excursion in seats that were not tethered was about *four inches greater* than for the lap-belted dummy. (Findings to be published.)

What Is the Reason Seats Are Misused or Not Used at All?

Car "safety" seats have been in use for some 50 years, serving an important if limited safety function (12). Unfortunately, too many parents continue to view these seats as merely a means of confining and supporting the child and providing elevation for a better view out of windows. Once the child needs neither the confinement nor the elevation, these seats are often no longer used.

There is nothing magical about safety restraints. They alone cannot protect the child; parents and guardians have to do their part.

Should Adults Be Permitted to Hold Children on Their Laps?

This practice, which was originally permitted in Tennessee, is far more dangerous than allowing children to ride loose. The weight of the adult, greatly increased by collision forces, would crush the child against the dashboard, windshield or other internal structures (Appendix II). Even if the adult is riding belted, the child would be torn from his/her arms by collision forces (21).

Who Should Be Responsible for the Protection of Children?

The operator of the car in which the children are traveling should be made responsible for their safety. Responsibility should not be limited to parents and legal guardians. Doing so would result in large numbers of children being placed into unnecessary jeopardy while being transported by grandparents and babysitters, or participating in car pools.

What Can Be Done if the Number of Children Exceeds the Number of Belts Available?

This problem can only be solved by making an exemption for such contingencies. Doing so would, however, defeat the whole purpose of the law: Large numbers of children could continue "legally" to be piled into one car or the cargo area of a station wagon.

An exemption should therefore be made only where the number of children *in one family* exceeds the number of belts available.

Should Children Be Required to Ride in the Back Seat?

For an extra margin of protection, the law should specify that lap-belted children, as opposed to those secured in child restraints, ride in the back seat. This is required in some states. (Appendix I).

What Should the Law Specify Concerning Federal Standards?

The law should require that devices used be in compliance with the federal standard applicable at the time of manufacture. This would rule out the use of travel beds, porta cribs, and household feeder and booster chairs which offer no protection at all.

It is not recommended that use be limited to devices manufactured after January 1, 1981, when a revised federal standard went into effect (22). This standard calls for *dynamic* testing of devices as opposed to the *static* tests mandated in 1971. (Static tests were shown not to replicate the violent forces generated in a real-life collision.)

The number of poorly constructed seats, i.e., those only in compliance with the 1971 test requirements still in use is estimated to be relatively small. The majority of manufacturers have produced crash-tested seats for several years now, although not required by law to do so. Forcing parents who already own a crash-tested seat to purchase a new one could be viewed as punitive.

How Can The Law Be Enforced?

Enforcement is, of course, a difficult matter, and entirely up to law enforcement authorities who may not view this as a top priority.

In Tennessee and several other states (Appendix I), the law permits fines to be waived if a parent appears in court with proof that a child restraint has been obtained. If belt use is permitted as an alternative, this course of action would make little sense, and a fine would, presumably, have to be levied.

Should the Law Address Misuse of Devices?

The law should require that seats be used "strictly according to manufacturers' instructions." Misuse observed can involve one or all three of the following which can reduce or even entirely defeat the protective potential of these seats:

a) Device not anchored to the seat of the vehicle;
b) Child not secured within the seat;
c) Top anchor strap not used with seats that rely on this additional support for crash performance.

What Are the Basic Components of a Child Passenger Protection Law?

1) Age
   a. All minors, or
   b. Up to 13th birthday when youngsters are still largely under parental control, or
   c. Preschoolers (up to 4th or 5th birthday).

2) Type of Restraint
   a. Special child restraint (infant carrier) up to age one or until child can sit up unaided, with standard safety belts permitted from age one up.
   b. Special child restraint up to 4th birthday, or when child's weight exceeds 40 pounds or height exceeds 40 inches.

3) Person Responsible for Child's Protection

   The operator of the vehicle in which the child is riding.

4) Exemptions

   Only if the number of children in *one family* exceeds number of belts available.

5) Federal Standard

   Devices should be in compliance with the federal standard applicable at time of manufacture.

6) Correct Use

   Devices must be used strictly according to manufacturers' instructions.

7) Penalty for Non-Compliance

   At the discretion of the legislature.

Physicians for Automotive Safety
14 Rye Ridge Plaza, Port Chester, NY 10573

REFERENCES

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THE CENTER
FOR CHILDREN
AND PARENTS

December 14, 1982

Senator Charlie Parr, Chairman
Senate HESS Committee
950 Cowles, Room 224
Fairbanks, Alaska 99701

Dear Charlie:

As head of agency concerned about the welfare of children, I would like to support legislation mandating the use of child restraining devices in motor vehicles.

A few years ago friends of mine suffered the loss of their two-year old daughter when the family car had a head-on crash and the child was catapulted through the windshield. If the child had been restrained, she would still be alive.

I wholeheartedly support mandatory use of child restraining devices in motor vehicles and hope that you will be able to get legislation through the legislature this year.

Sincerely yours,

Bob Bowers

Robert D. Bowers
Executive Director

RDB:dw

808 E STREET, SUITE 200, ANCHORAGE, ALASKA 99501 (907) 276-4994
Programs of the Anchorage Child Abuse Board, Inc.

Safety Tips

If a tornado warning is issued... this means that a tornado has actually been sighted in your area. The safest place in your home during a tornado is the basement. If you don't have one, take shelter in a bathroom or closet on the lowest level of your home or under a heavy piece of furniture. Stay away from windows. In an office building, go to the lowest floor and take cover in an interior corridor, away from all windows and exterior walls.

The Southwestern Insurance Information Service warns that, above all, you should never try to outmaneuver a tornado in your automobile. "When a tornado hit Wichita Falls, 26 of the 43 persons killed were attempting to flee the tornado in their cars." If you should happen to be in your car as a tornado approaches, get out and take cover in a ditch or depression, the Service advises.

Unruly children... Accidents caused by lack of driver control have occurred when the driver turned around to discipline children. Children always should be restrained in a child restraint (or child seat) that meets Federal Safety Standards. A safety belt is adequate if no child seat is available or if the children are older. This primarily is for their safety if there should be a crash, but it also keeps children from interfering with the driver.

If you must discipline young children in the car, don't let go of the wheel and turn around. Pull off the road and switch off the engine before applying whatever discipline is necessary. And make the children fasten their safety belts despite any objections.

Child protection... Crash tests conducted by the Insurance Institute for Highway Safety demonstrate the need to properly restrain children for protection in auto accidents, even at slow speeds. The test crashes used popular 1979 model vehicles and test dummies. The filmed results showed:

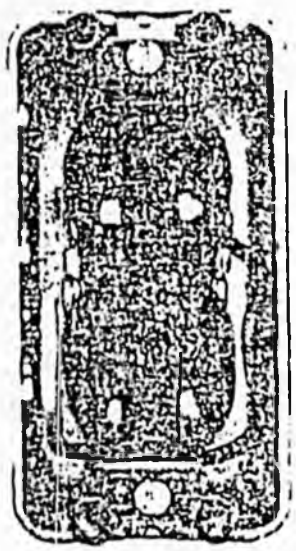
- An unbelted mother crushing her lap-held baby violently into the instrument panel and windshield of their sedan in a frontal crash of less than 25 mph.
- Unrestrained children ejected from the rear window of a station wagon when it was struck by another station wagon at only 30 mph. One test dummy smashed headfirst onto the pavement.
- Two youngsters, unrestrained, being violently thrown about when the van in which they were riding crashed at less than 25 mph.
- An unrestrained infant, lying on the front seat beside its mother, hurled forward in a 25 mph crash to smash its face on the radio and air conditioning knobs.

Depending upon their age and size, *always* buckle children in or place them in properly-anchored child restraint seats.

Now is a good time... to check your home for electrical defects. Here are some electrical checkpoints from the National Fire Protection Association:

1. Look for frayed, cracked insulation and loose connections on lamp, appliance and extension cords, including cords behind furniture or otherwise out of sight. Never attempt repairs like taping over bad insulation. Be safe and replace the cord.

2. If you are running any cords under rugs, get rid of this hazard right away. Traffic and vacuuming will wear cord insulation to the danger point without your noticing it. If you need more outlets have a qualified electrician install them.



President
Seymour Charles, M.D.
Executive Director
Annemarie Shelness

Physicians for Automotive Safety

PAS News

Winter 1981/82

More than four years have passed since Tennessee's child passenger protection law went into effect. This landmark event, for which Dr. Robert Sanders of the Murfreesboro County Health Department deserves the major credit, has resulted in other states following suit. Ten states have statutes on the books already, many others are in the process of considering legislation.

While it cannot be stressed enough that merely enacting a law is not likely to bring about lasting changes in the way children are being transported, the Tennessee experience has shown that educational campaigns, accompanied by police enforcement, can and do.

It now remains to persuade legislators in the remaining 40 states to pass bills the public is able to comply with and that address the problem in an informed manner. In some instances, statutes already on the books would benefit from amendments.

This issue of PAS News tackles the problem of legislation in depth, providing guidelines which will, it is hoped, be helpful.

Consumers Union Rates Child Restraints

The April 1982 issue of Consumer Reports rated children's car safety seats on the basis of convenience -- a rating that has been badly needed. CU's "check-rating" was awarded to the Century 200. The seat has a small abdominal pad joining the shoulder belts together, and requires only a single buckling action, which the majority of parents found to be convenient. The seat was also rated high in child comfort.

Seats requiring top anchor straps were rated in the lower category because of the problems top anchor installation entails. The Strolee Wee Care Seat, check-rated in CU's 1977 ratings, has been relegated to the lower category for that reason. (Experience has shown that the majority of top anchor straps are not used).

CU expanded on a government-funded study carried out by the University of Michigan Highway Safety Research Institute which gave 32 parents a chance to make a choice from eight different model car seats.

At the end of the experiment, only three parents kept the seats they had first picked. CU contracted with HSRI to include every model seat on the market.

Although PAS raised objections to the check-rating -- doing so we believe, creates an unjustified gulf between the check-rated seats and other "acceptables" -- we are delighted that CU took a more pragmatic approach to child passenger protection. Many safety experts disagreed with CU's 1977 ratings (PAS News Summer 1977).

The enclosed special report from Aide, "How Safe Is Your Car?" is being sent to PAS members, courtesy of United Services Automobile Association.

Car Booster Seats: a Mixed Blessing

At half the price of conventional children's car restraints, booster seats are an attractive buy. Three makes are currently on the market: Century's "Safe-T-Rider" #4760, and #4780, Kolcraft's "Tot-Rider" and Strolee's "Wee Care Booster." Boosters are particularly valuable for the child who has outgrown a car seat, but can be used from the time the child weighs 20 pounds. Properly used, they furnish crash protection in compliance with the federal standard.

What the average consumer does not appear to recognize is that a booster seat is not a satisfactory safety device when used with only the lap belt. The harness, which provides support for the upper torso, is an essential component of the system. (With lap belt only, the government-mandated "misuse" test calls for protection in 20 mph crashes as opposed to 30 mph protection afforded when the seat is used with the harness.)

Although a harness accompanies each seat (the Volvo booster is an exception to be discussed later), it is not attached to the seat; this may be the reason that, more often than not, the harness is not used.

Installation of the harness poses the same problems as installation of top anchor straps, and the non-use incidence is probably similar, also. Since correct use of booster seats is possible only in cars equipped with top anchor brackets, these seats are not suitable for car pool situations.

Instead of using the harness supplied with the seat, the booster may be used with combination lap/shoulder belts. These are present in all front outboard seats of American automobiles manufactured since 1968. In some luxury imports shoulder belts are also provided in rear outboard seats. Raising the child up on a booster makes it possible to use shoulder belts at an earlier age.

A shoulder belt can only be used if it positions across the child's chest and not the face or neck. There are no hard and fast rules concerning the height the child must be to assure a correct fit. It varies from car to car, depending on the location of the anchorage point. Some belts are attached to the door pillar, others along the roof frame. The higher and more perpendicular the anchorage location, the taller the child will have to be before the belt can be used. Moving the child closer to the center of the vehicle may help improve the fit.

Some stores are unfortunately contributing to misuse by advertising just the seat and not the harness. Several branches of Child World, an East Coast chain, have been advertising the Kolcraft Tot-Rider showing a child seated in the booster, secured with only a lap belt. Parents may not take the time to read the instructions that accompany the seat, warning against such use.

Two factors contribute to increased head excursion when only the lap belt is used: 1) The elevation of the booster; 2) The fact that the lap belt positions across the thighs rather than the pelvis -- a preferred and safer location -- providing, of course, the upper torso restraint is used also.

The Volvo safety seat is in a category by itself. Volvo developed it to enable children to use the lap/shoulder belts which Volvo cars have in both front and rear seats. No harness is provided.

The Volvo booster is higher than the others mentioned and would therefore be particularly dangerous used with only a lap belt. Since the device could not meet the federal "misuse" standard, the manufacturer recommends it for children weighing over 40 pounds. The seat thereby does not fall under the requirements of standard No. 213 for child restraints.

Because of its limited application, the Volvo booster should not be included in listings of recommended restraints.

It should be borne in mind that unless booster seats are used in conjunction with an upper torso restraint, a child would be infinitely safer buckled into a lap belt while sitting on the seat of the car.

GM Out of Car Seat Business

The Infant and the Child Love Seats, previously marketed by General Motors, are now being distributed by Century Products. Hamill Manufacturing Co. which produced the seats for GM, continues to make them for Century.

Many parents believe that the safest and most loving way to transport a small child or infant in a car is in their arms. They are certain that if an accident is about to occur, they will have time and the strength to hold the child and protect him/her from injury. THIS IS NOT TRUE. The most dangerous place in a car for a child is on the lap or in the arms of an adult.

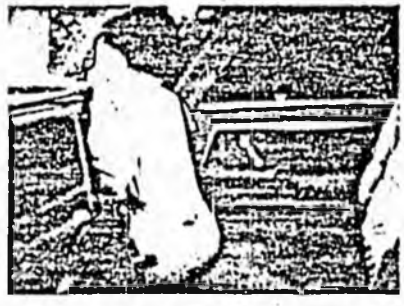
Two recent studies clearly illustrate this danger to children.

In a series of tests at the Highway Safety Research Institute in Michigan, male and female adult volunteers were safely fastened to a seat with lap and shoulder belts. Each volunteer held a 17-pound "dummy" which represented the size and weight of a six month old baby. Each was then subjected to simulated 15 and 30 mph impacts. Not one of the volunteers was able to hold onto the "baby." Even knowing the precise moment of impact and using all their strength, the baby was ripped from their arms and slammed into the dashboard.

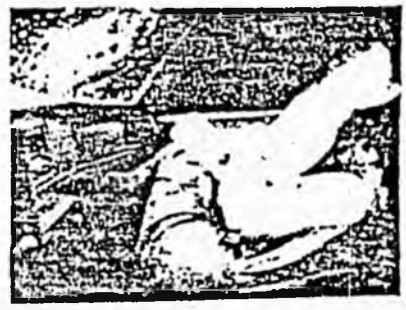
A second study was sponsored by the Insurance Institute for Highway Safety in Washington, DC. It shows what happens to infants held in the arms of adults who are not using proper restraining devices. In this test, a 1979 4-door Chevy Malibu was driven into a solid barrier at just 24 miles per hour. You will see why the second major cause of death and injury to children in cars is being crushed by unrestrained adults.

Pre-crash position of unbelted mother holding her baby on her lap.

Shows forward movement of mother and child 1/10 second after impact just before slamming into dashboard and windshield.



Mother's body becomes a battering ram, crushing infant into dashboard and shattering windshield (3/20 second after impact).



Shows mother and child as they rebound off windshield and dash (1/2 second after impact).

Produced by the Michigan Office of Highway Safety Planning
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WHAT SOME PROMINENT SAFETY RESEARCHERS SAY

"The 'Battered Child Syndrome' an injury pattern result-ing from parental abuse, has been widely described in the medical literature and the popular press. Yet automotive collisions are the most common cause of injuries in child-hood and they have received little attention.

The injury complex should be described as the 'neglected child syndrome' since ample evidence indicates that a great many of these injuries could readily be reduced or prevented by simple parental action." (From *Injuries to Children in Automobile Collisions* by A. W. Siegel, A. M. Nahum, and M. R. Appleby, D.C.I.A. School of Medicine)

ADDITIONAL SAFETY MATERIAL AVAILABLE

Crash testing of child restraints was featured in the August 1972 and March 1975 issues of *Consumer Reports*. Con-venience of use and child comfort were rated in the April 1982 issue. Copies are available at your public library or order from Consumers Union, 256 Washington Street, Mount Vernon, NY 10550, price $1 each.

Questions on car restraints are answered in *The Automotive Safety Belt Fact Book*, obtainable from the Government Printing Office, Washington, DC 20402, price $1.

For information on child restraint loan programs and community educational activities write National Highway Traffic Safety Administration, NTS-14, 400 Seventh St. S.W. Washington, DC 20590.

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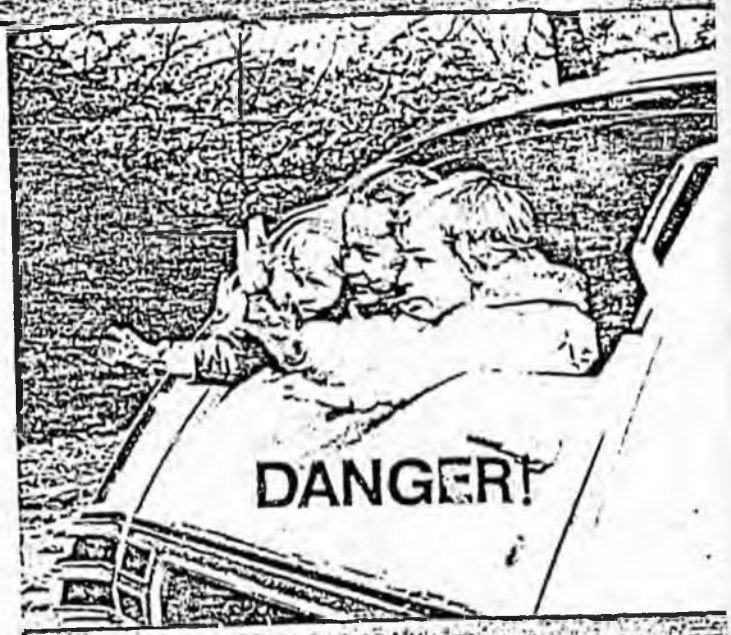
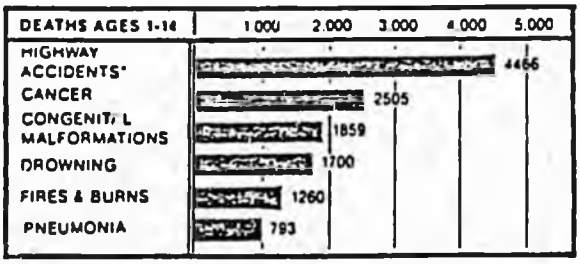
Don't Risk Your Child's Life!



Children Must Ride Buckled Up

Adult's Lap Is Not Safe



SOURCE Accident Facts, 1978 Edition, National Safety Council
*Includes pedestrian and bicycle fatalities

The Highway Epidemic

It is not generally known that traffic accidents are the leading cause of death in childhood once the critical early period has passed, claiming more lives than any disease or other accidental cause.

During the last decade 10,000 children under the age of five were killed as passengers in automobiles. Of the hundreds of thousands injured, many remain permanently disabled, physically and/or mentally.

So many of these tragedies could be prevented if only parents took simple precautions.

Safety Belts Save Lives

Riding "buckled up" greatly reduces the risk of injury and death by preventing car occupants from being flung, with tremendous force, against the windshield, instrument panel, or other parts of the vehicle interior — or out into the roadway.

Contrary to what some people believe, it is far safer to stay inside the vehicle than to be thrown out of it. Even in the event of fire or submersion in water, belts will help reduce the severity of injuries and increase your chances of remaining conscious, thereby making escape more likely.

Being a safe driver yourself is no excuse for you or your children to ride unprotected. Crashes are all too often caused by the carelessness or recklessness of others.

Small Children Need Special Protection

Safety belts do not provide the best protection for the very young. In a severe crash a lap belt could put too much pressure on a small child's hips and abdomen. It is therefore recommended that infants and small children be secured in special safety devices designed to distribute crash forces over a large area of the body.

While every effort should be made to provide such special devices, even small children, once they can sit up unsupported, are far safer buckled into regular seat belts than riding "loose."

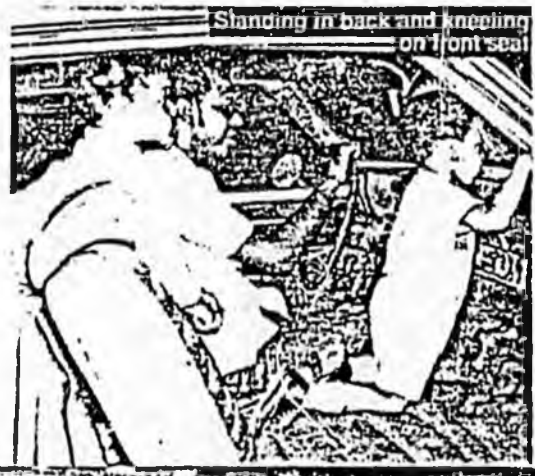
Adult's Arms Are Not Safe

Ordinarily, a parent's arms are a very secure place for a child, but inside a car it is the most hazardous. In a crash your body would crush the child against the dashboard and windshield. Even if you are wearing a lap and shoulder belt yourself, the child would be torn from your grasp by the violent forces of a collision.

Never put a belt around you and a child held on your lap. In an accident your own weight, greatly increased by crash forces, would press the belt deeply into the child's body; this could cause serious or even fatal injuries.

Beginning with the very first car ride — the drive home from the hospital — the baby should be secured in a crash-tested safety device.

These Children Are in Danger



Old-Type Car Seats Are Inadequate

Children's car seats have been in use for more than 40 years. They served a limited safety purpose, providing support and confinement—features helpful in preventing interference with the driver and providing some measure of protection in case the car swerved or stopped suddenly.

The seats also raised the child up to window height for a better view, helping to prevent boredom which can lead to disruptive behavior.

Today's seats do all that and a great deal more: They are designed to prevent serious injuries in case the car is involved in a crash.

New Government Safety Standard in Effect

Although a safety standard for children's car seats has been in force since 1971, the requirements were not nearly strict enough. Many devices on the market during those years did not offer the level of protection your child needs.

The U.S. Department of Transportation has recently upgraded the standard. New regulations went into effect on January 1, 1981. All devices manufactured since that date have to stand up to actual crash tests (known as "dynamic" tests), something the 1971 standard did not require.

While some seats made before 1981 may not be safe, many were crash tested and therefore offer a good level of protection. Information on these older devices is obtainable by writing to the address on the back panel. (Please include a stamped, self-addressed envelope.)

Which Is the Safest Restraint?

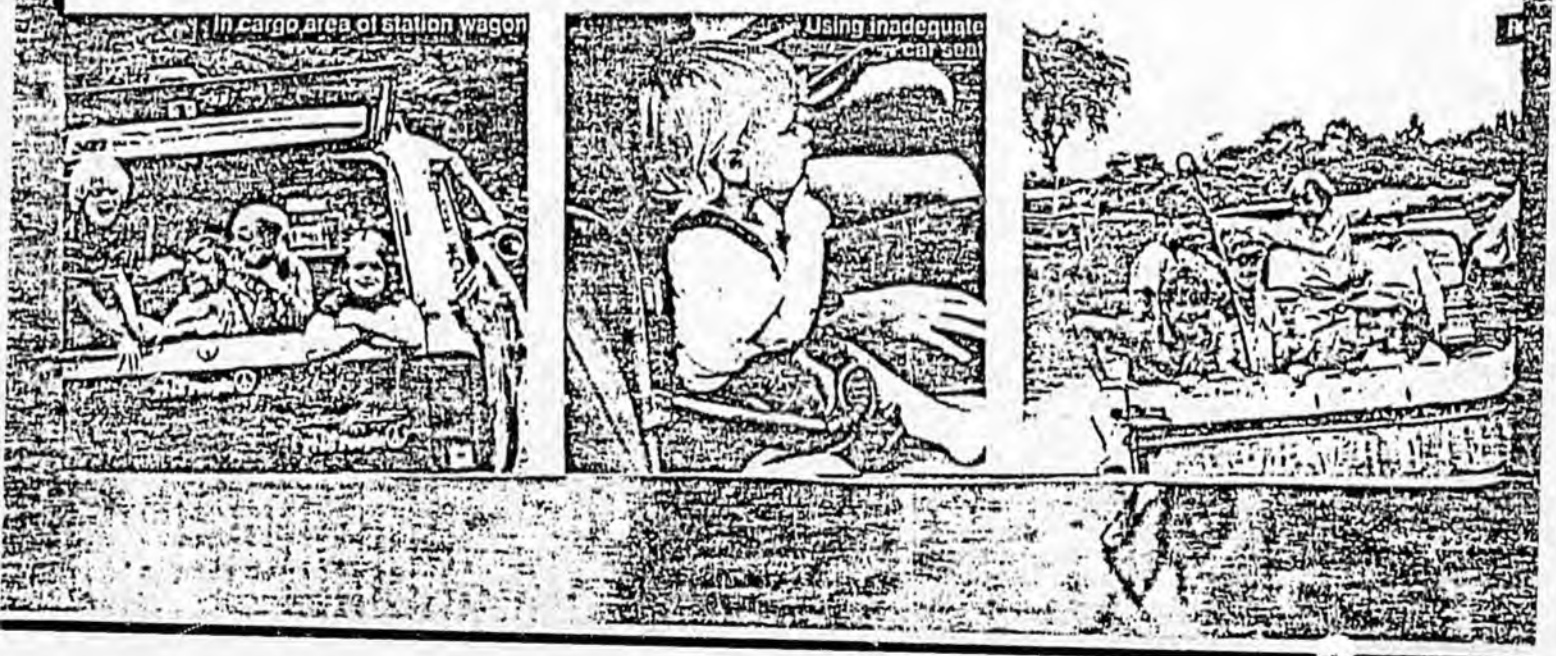
The answer is simple: The one you will use properly every time. The life-saving value of even the "safest" seat will be reduced or could be entirely defeated if manufacturer's instructions are not followed to the letter.

A seat secured at the top provides an extra margin of safety. But unless that top anchor strap is correctly installed, your child will be safer in a seat engineered to stay in place without the additional support a top anchor strap provides. (If a seat is sold with a top anchor strap, use of that strap is essential. Do not believe sales persons who tell you otherwise.)

Shopping Guidelines

Remember that a harness, consisting of shoulder straps, a lap belt, and crotch strap is all that is needed for crash protection. Any additional features, while possibly making it easier to use the seat, do not necessarily improve safety performance. Arm rests serve no protective function whatsoever.

Shop carefully. Consider your child's comfort. Make certain that the seat will fit in your car, lap belts are long enough for securing it, and the buckle is not too bulky to slide through the slots. Read the instruction book before you buy. All too often top anchor straps are not shown in store displays so you may not know a seat needs one until you get it home.



The Protection of Older Children

When a child has outgrown a safety restraint (usually by age four or when 40 pounds has been reached), a lap belt is required for protection. The belt must be correctly secured below the abdomen and adjusted for a very snug fit.

In the front seat a shoulder belt should be used in addition to the lap belt, but only if the child is tall enough so the shoulder belt goes across the child's chest—not the neck or face. If the shoulder belt does not fit, place it behind the child, using the lap belt alone. Raising the child up on a special booster seat may help position the shoulder belt correctly (see illustration on right).

A booster seat is not safe used with only a lap belt; support for the upper body is essential. Boosters are sold with their own harnesses for use in the back seat (see reverse side of folder).

Car Booster Seat
A specially designed booster seat helps position the shoulder belt across the child's chest.

Warning: Do not use a booster seat with only a lap belt. Doing so could result in serious injury to the child.

How Do Children Like Riding Restrained?

A child used to a safety device from an early age will continue to accept restriction as a matter of course, with only occasional protests. A child who has never been confined may at first resist riding buckled up. A great deal will depend on the parents' determination.

On long trips make frequent stops to give children the chance to romp and let off energy. A baby should be taken out of the carrier and laid flat to allow stretching and kicking. Be sure to pull into a rest area or well off the highway.

More Tips on Safe Car Travel

- Parents should buckle up for three reasons: 1) to set a good example for their children; 2) for their own protection; and 3) for the protection of their children: unrestrained occupants could injure others who are belted in.
- The back seat is safer than the front. The center back of the vehicle is safer than the sides.
- Two children should not be strapped into one belt. Doing so makes a proper fit impossible.
- A shoulder belt must not be tucked under the arm or be worn without a lap belt by anyone—child or adult.
- A lawn mower, bicycles, luggage or any hard, heavy objects carried unsecured inside the vehicle pose a hazard. The only safe place for cargo is in the trunk or on a roof rack.
- Children should not be allowed to play with pens, pencils, or hard or sharp objects while the car is moving.
- Do not substitute a cushion or household booster for a specially designed car booster seat.
- In some cars the lap portion of the safety belts slides freely through the latch and cannot be locked. Since a child safety device must be firmly secured to the seat of the vehicle, this type of belt requires the use of a special locking clip which is obtainable from the child seat manufacturer.

Crash-Tested Devices on the Market...

(Required to comply with federal safety standard in effect since January 1, 1981.)

Infant Carriers

Century	
Infant Love Seat*	Suitable from birth to 20 lbs. (F)
Ford	
Infant Carrier	Suitable from birth to 20 lbs. (F)
Questor	
Dyn-O-Mite**	Suitable from birth to 17 lbs. (F)

Toddler Seats

Century	
Child Love Seat*	18 to 40 lbs; five-point harness. Use of top anchor strap essential. (F)
Ford	
Tot-Guard	Shield with booster base, secured with lap belt. Ford dealers only. From age 2 up to 50 lbs. (F)

Infant/Toddler Seats

(Convert from rear-facing infant carriers to forward-facing seats for children able to sit up without support.)

Bobby-Mac	
Champion	Up to 40 lbs; V-shaped harness and snap-on shield. (F)
Deluxe II	Up to 40 lbs; V-shaped harness; shield attached to pivoting frame. (F)
Super	Up to 40 lbs; five-point harness. Requires use of top anchor strap. (B)
Century Products	
Century 100	Up to 43 lbs; five-point harness. (B)
Century 200	Up to 43 lbs; shoulder straps attached to abdominal pad. (B)
Century 300	Up to 43 lbs; five-point harness and spring-loaded arm rest. (B)
Cosco/Peterson	
Safe & Easy #313	Up to 40 lbs; five-point harness. (B)
Safe-T-Seat #78††	Up to 40 lbs; five-point harness. (B)
Safe-T-Shield #81	Up to 40 lbs; uses only shield. (B)
Safe & Snug	Up to 40 lbs; harness straps joined to spring-loaded shield. (B)
International	
Astroseat 9100	Up to 42 lbs; five-point harness. (B)
Kantwet	
Care Seat	Up to 40 lbs; five-point harness. (B)
One-Step □	Up to 40 lbs; shoulder straps joined to spring-loaded shield. (B)
Kolcraft	
Hi-Rider**	Up to 40 lbs; five-point harness and optional snap-on shield. (F)
Redi-Rider	Identical seat without shield.
Strolee	
Wee Care #597 Δ	Up to 40 lbs; five-point harness. Use of top anchor strap essential. (B)
Wee Care #599	Up to 40 lbs; five-point harness and spring-loaded arm rest. Use of top anchor strap essential. (B)
Welsh Co.	
Travel Tot**	Up to 43 lbs; five-point harness. (B)

Booster Seats

Century
Safe-T-Rider† #4760 & #4780

Kolcraft
Tot-Rider

Although booster seats can be used from an earlier age, they are recommended for use after a regular car seat has been outgrown. Must be used with harness — never with lap belt alone. Do not use after mid-point of child's head reaches top of seat back.

*Formerly distributed by General Motors.

**Seats manufactured before 1981 not recommended.

†Safe-T-Rider booster seats manufactured before Sept. 1980 have defective harnesses. Contact Century for free replacement.

††Safe-T-Seats manufactured before 1980 require use of a top anchor strap.

□ One-Step seats manufactured before 1982 require use of top anchor strap.

Δ Wee Care Seats #597 manufactured before April 1980 are not recommended for use in rear-facing infant position.

(F) — Lap belt is secured around front of seat (see diagram).

(B) — Lap belt threads through the frame in back of seat.

Note: We would be happy to answer questions regarding earlier model seats not listed here, but please enclose a stamped, self-addressed envelope with your letter. Write: PAS, P.O. Box 208, Rye, NY 10580

...and How to Use Them

Infant Carrier

Conventional Car Seat

Protective Shield

Car Booster Seat

Many devices combine the design features shown here.

Infant Carriers, suitable from birth up to 17 or 20 pounds, are designed to face rearward (never forward). The infant rides in a semi-reclining position, secured with a harness. The carrier is strapped to the seat of the vehicle with a lap belt.

Rolled up receiving blankets placed around the baby's head and shoulders will provide support during the early weeks of life.

Conventional Car Seats are suitable for children who are able to sit up by themselves. The child is held in by a harness; the seat is anchored to the vehicle with a lap belt.

Some devices require the lap belt to be threaded through the back where it can remain permanently buckled. Others must be anchored with the belt around the front as shown in the illustration. Whichever way the seat secures, the lap belt must be pulled tight.

A few seats need a top anchor strap to prevent them pitching forward in a crash. If the device is to be used in the front seat of the car, the strap secures the lap belt in the seat behind. This does, however, make one set of rear belts unusable.

If a top anchor device will be used in the back seat (this is the safer location), permanent installation of a bracket is necessary.

In a sedan this involves drilling a hole through solid metal in the rear window ledge. In a station wagon or hatchback, the anchor plate has to be installed way back in the cargo space. Follow manufacturer's instructions. Note that anchor brackets for installation in a second car are obtainable from the child restraint manufacturer.

A strap fastened to the rear of the seat back or straight down to the floor will not hold the seat upright in a severe crash. (Some late model GM cars and Toyotas have predrilled anchorage points; see Car Owner's Manual.)

Protective Shield distributes crash forces by cushioning the child's body on a padded surface. Two of these seats require no harness. In some cases a partial shield is used in combination with a harness (see chart).

Booster Seats are particularly suitable for children who have outgrown conventional car seats. They are intended to be used with the harness that is sold as part of the system or with the vehicle's combination lap/shoulder belt (see "Protection of the Older Child" on the reverse side of this folder).

The booster seat harness requires permanent installation similar to top anchor straps. Booster seats must never be used with only a lap belt.

The Issue

More than 1,400 children under 13 years old die and thousands more are injured each year in the United States as motor vehicle passengers. Infants under one year of age have an even higher death rate than older children. The risk of death is particularly high during the first few months of life. In spite of these facts, children riding in automobiles are seldom restrained, and auto manufacturers do not design and construct even their newest vehicles to provide maximum protection for children in the event of a crash.

More than 90 percent of children in the United States currently ride in motor vehicles without the protection of car seat belts or child restraint systems. Even more startling, some of these children are traveling in cars in which adult drivers and passengers are wearing belts – that is, children are traveling with adults who apparently know the value of restraints but do not provide this protection to children.

Many people carry children on their laps in cars, not realizing that an unrestrained adult will become, in a forward crash, a crushing force against the child's body.

Efforts to increase child restraint use through exhortation, education, legislation mandating child restraint use, and incentives such as the provision of restraint systems at no cost or reduced cost have resulted in small increases in use levels. Yet the vast majority of children in cars are still unrestrained.

This special publication looks at the national public health tragedy of children in crashes and reviews some available countermeasures, including the use of child restraint systems. The first articles describe the special problems for children in motor vehicles – lap travel, hazards in the passenger compartment, etc. – and show what happens to unrestrained children in a crash. Then the various ways children can be better protected in motor vehicles are examined. State laws and federal regulations concerning child restraints are described. A discussion of the benefits, in addition to crash protection, of using child restraints is included. And the elements of a model child restraint law are set forth.

What All Adults Can Do To Protect Children In Motor Vehicles: Use Restraints

- Place children who cannot sit up unassisted in specially designed carriers and be sure the carrier is tightly secured by a seat belt. The child should be snugly fastened in the carrier's harness system.

- Secure older children with restraint systems, specifically at a minimum, special-purpose child restraint devices if possible. If you have to use a regular lap belt for a child, pull it tightly across the top of the child's hips. Do not strap two children into one belt, and do not strap a child into a belt with an adult. Tragically, some of the child safety literature suggest that small children should not wear seat belts at all if a special child restraint system is unavailable, but as the best research to date shows, children ages 1-4 are substantially better off with car seat belts than without them. *No child should be unrestrained in a motor vehicle under any circumstances.*

- Put children in restraints in the back seat where they are least likely to be thrown against hostile objects in a crash. The middle of the back seat is the best location.

- Do not hurry a child on lap in a motor vehicle. In a crash, adults (even if they are belted) cannot restrain children by holding on to them. Unbelted adults can crush the child against the car's interior (see page 5).

- Keep children out of station wagon, van and pickup truck cargo areas where they cannot be restrained.

- When buying a child or infant restraint, look for one with a permanent label which says: "This child restraint system conforms to all applicable federal motor vehicle safety standards." Do not use a flimsy, lightweight feeder seat or bed that was designed for household use; these were not intended for cars and do not meet the dynamic testing requirements recently established for child restraints (see page 12).

Child restraint devices come in many different sizes and shapes. Not all restraints fit in all cars, so care should be taken to choose a restraint that fits properly in the car in which it will be used. Information about specific models of infant and child restraints can be obtained from several sources. The Physicians for Automotive Safety (PAS) distributes a brochure, *Don't Risk Your Child's Life*, which provides comparative shopping information about restraints. Single copies can be obtained for 50 cents by writing: PAS, 5 Ive Lane, Rye, NY 10580 (include a self-addressed, stamped envelope). Contact PAS for information about the cost of larger quantities of this brochure. For more general information about child restraints, the National Highway Traffic Safety Administration has another brochure, *Child Restraint Systems for Your Automobile*; up to 50 free copies may be obtained by writing to the agency's Child Restraint Program, Washington, DC 20590. Action for Child Transportation Safety (ACTS) has reference packets of information and materials available in bulk; to obtain samples, lists, and charges for these materials, write: ACTS, P. O. Box 266, Bothell, WA 98011 (include a self-addressed, stamped business envelope).

EXAMPLES OF CHILD RESTRAINT LEGISLATION

CHILD RESTRAINT USAGE

Issue

Efforts to gain State child restraint laws have, with one exception, been unsuccessful. Recent surveys have indicated that a vast majority (approximately 93%) of children less than ten years of age travel without any restraints at all. There is a need for increasing the protection of children in passenger vehicles.

Discussion

Studies indicate that children who are unrestrained in passenger vehicles are more likely to be killed or injured in an accident than those who are restrained. Results of one study provide an estimation that if all children under the age of five years were restrained at the time of an accident, a reduction of deaths by 91 percent and injuries by 78 percent might be expected. Seat belts alone do not provide adequate protection for small children, although they are better than letting a child ride unrestrained.

Many manufacturers are testing and marketing dynamically-tested child restraint devices (CRD). Given the commercial availability of CRD's and the presence of adult safety belt systems as standard automobile equipment, it seems that parents have the opportunity to provide effective occupant safety for their children. Because of the availability of such equipment some professionals have expressed the concern that failure to use such protective devices may constitute a form of child abuse.

On January 1, 1978, Tennessee became the first State to have a law establishing safety requirements for child passengers under four years of age. A public information and education program to encourage the use of child restraint devices began at the same time the law went into effect.

Since the passage of the law does not by itself insure a reduction of deaths and injuries to Tennessee children, the NHTSA and the Tennessee Governor's Highway Safety Program jointly established the Child Passenger Safety Program in Tennessee. The purpose of this program is to publicize the law, to educate the people of the State about the importance of CRDs and to evaluate the effectiveness of the law supported by these efforts. The project began October 1, 1977, and is to continue for a 36 month period.

NHTSA Position

States are encouraged to enact legislation to provide special protection for young children. Since young children are especially vulnerable and since their vulnerability can be reduced only by responsible adult action,

each State is encouraged to enact legislation that will, (1) adopt Department of Transportation performance standards (FMVSS 213) for child-passenger protective devices, (2) encourage proper conformance to manufacturers' instruction on proper usage and, (3) require the use of such devices whenever child-passengers are present in a motor vehicle.

At the present time NHTSA does not have a model law addressing child restraints. However, attached are examples of such legislation developed in the States of Washington and Tennessee.

ALTERNATIVE DRAFTS OF A BILL REQUIRING THAT CHILDREN UNDER THE AGE OF FIVE BE PROPERLY SECURED IN CHILD PASSENGER RESTRAINT SYSTEMS WHEN RIDING IN CERTAIN MOTOR VEHICLES

[NOTE: Bracketed material which is not adjacent to other bracketed material may be included or deleted. When there is a series of bracketed phrases, only one of them should be used.]

AN ACT Relating to the regulation of motor vehicles; adding a new section to chapter 46.61 RCW.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. Section 1. There is added to chapter 46.61 RCW a new section to read as follows:

(FIRST ALTERNATIVE)

(1) Every parent or legal guardian of a child under five years of age, when operating [anywhere in the state] his own motor vehicle registered under the provisions of RCW 46.16 in which such child is a passenger, shall have such child properly secured in a child passenger restraint system which is of a type and which is installed in a manner approved by the state commission on equipment. This subsection does not apply to the operation of authorized emergency vehicles in emergency situations.

(2) The state commission on equipment shall adopt standards for the performance, design and installation of passenger restraint systems for children under five years of age and shall approve those systems currently meeting its standards. Approved systems must provide substantial protection for passengers under five years of age from injuries from vehicle crashes or sudden stops, yet be of moderate cost to the public.

(3) The following methods of restraining child passengers do not comply with the requirements of this section:

(a) holding the child in the arms or lap of another passenger,

(b) use of a Type I seat belt assembly, as defined in 49 CFR § 571.209 as of January 1, 1978, by a child under forty pounds or four years of age, or

(c) use of a Type 2 seat belt assembly, as defined in 49 CFR § 571.209 as of January 1, 1978, by a child under fifty-five pounds or four and one-half feet in height.

[(4) Parental immunity from suits by minor children does not extend to actions based on the failure to comply with this section.]

(5) This act shall take effect on ....

(SECOND ALTERNATIVE)

(1) Every parent or legal guardian of a child under five years of age, when operating [anywhere in the state] any [motor vehicle] [motor vehicle other than ...,] [passenger car] registered under the provisions of RCW 46.16 in which such child is a passenger, shall have such child properly secured in a child passenger restraint system which is of a type and which is installed in a manner approved by the state commission on equipment.

(Here follow subsection (2), (3), (4) and (5) as they appear in the first alternative.)

(THIRD ALTERNATIVE)

(1) Every person, when operating [anywhere in the state] a [motor vehicle] [motor vehicle other than ...,] [passenger car] owned by him and registered under the provisions of RCW 46.16 in

which a child under five years of age is a passenger, shall have such child properly secured in a child passenger restraint system which is of a type and which is installed in a manner approved by the state commission on equipment.

(Here follow subsections (2), (3), (4) and (5) as they appear in the first alternative.)

(FOURTH ALTERNATIVE)

(1) Every person, when operating [anywhere in the state] a [motor vehicle] [motor vehicle other than ...,] [passenger car] registered under the provisions of RCW 46.16 in which a child under five years of age is a passenger, shall have such child properly secured in a child passenger restraint system which is of a type and which is installed in a manner approved by the state commission on equipment.

(Here follow subsection (2), (3), (4) and (5) as they appear in the first alternative.)

(FIFTH ALTERNATIVE)

(1) Every parent or legal guardian of a child under five years of age is responsible for such child's being properly secured in a child passenger restraint system which is of a type and which is installed in a manner approved by the state commission on equipment whenever such child is a passenger in a motor vehicle [operated anywhere in the state/and] registered under the provisions of RCW 46.16 other than an authorized emergency vehicle, auto stage, municipal transit vehicle, other for-hire vehicle, school bus, or private carrier bus.

(Here follow subsections (2), (3), (4) and (5) as they appear in the first alternative.)

(SIXTH ALTERNATIVE)

(This section would most properly be placed in Chapter 46.37 RCW.)

(1) The owner of a motor vehicle registered under the provisions of RCW 46.16 other than ... is responsible for such vehicle being equipped with a child passenger restraint system which is of a type and which is installed in a manner approved by the state commission on equipment whenever the owner has reason to know that a child under five years of age is a passenger in such vehicle [and that such vehicle is being operated anywhere in the state].

(Here follow subsections (2), (4) and (5) as they appear in the first alternative.)

SENATE BILL NO. 1792

by

Henry

AN ACT to require the use of approved child restraint systems for children within certain age and weight limits while they are riding as passengers in motor vehicles on the highways; to regulate the providing, in this state, of safety belts and child restraint systems and the use thereof; to provide for certain exemptions; to place certain responsibilities on drivers transporting children in motor vehicles; to provide for a presumption of negligence; and to provide a penalty for violation of the act.

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

SECTION 1. The short title of this act shall be known as the "Tennessee Child Passenger Protection Act of 1976."

SECTION 2. DEFINITIONS. As used in this act, unless the context otherwise requires:

(a) "Child restraint system" means any device manufactured to transport children of forty (40) pounds or less in a motor vehicle and which conforms to all applicable federal motor vehicle safety standards.

(b) "Commissioner" means the Commissioner of Safety of this state.

(c) "Department" means the Department of Safety of this state.

(d) "Driver" means every person who drives or is in actual physical control of a motor vehicle.

(e) "Highway" means the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purpose of vehicular traffic.

(f) "Motor vehicle" means any vehicle driven or drawn by mechanical power manufactured primarily for use on the public streets, roads, and highways, except any vehicle operated exclusively on a rail or rails.

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

(h) "Safety belt" means a lap belt, shoulder belt, any any other belt or combination of belts, except those which are physically a part of a child restraint device, installed in motor vehicles to restrain drivers and passengers. It also includes anchorages, buckles, and all other equipment

directly related to operation of safety belts.

(i) "Seating position" means any vehicle interior space intended by the vehicle manufacturer to provide seating accomodation while the vehicle is in motion.

SECTION 3. APPLICATION. The provisions of this act shall apply to privately owned non-commercial motor vehicles operated upon any highway of this state, and shall apply to all motor vehicles used for the transportation on any such highway of children less than four (4) years of age, such as vehicles owned or used by kindergartens, child day care centers, and similar agencies or institutions.

SECTION 4. CHILD RESTRAINT SYSTEM REQUIREMENTS. (a) No person shall install, distribute, have for sale, offer for sale, or sell any safety belt or child restraint system for use in motor vehicles unless it conforms to all applicable federal motor vehicle safety standards. (b) Every owner shall maintain safety belts required by this section in proper condition and in a manner that enables them to be readily used. (c) Every child less than four (4) years of age and forty (40) pounds or less in weight being

transported in a motor vehicle subject to the requirements of this act shall be provided with a child restraint system suitable for the child's size, except as herein provided. (d) Every child less than four (4) years of age and forty (40) pounds or less in weight being transported in a motor vehicle subject to the requirements of this act shall be properly fastened into a child restraint system appropriate for the child's size where a seating position is available which is equipped with a safety belt or other means to secure the device, according to the manufacturer's instructions.

SECTION 5. RESPONSIBILITY OF THE DRIVER FOR CHILD RESTRAINT USE BY CHILDREN. It is the responsibility of the driver transporting children subject to the requirements of this act to ensure that such children are provided with and properly use a child restraint system.

SECTION 6. EXEMPTIONS. The Commissioner may exempt a class of children from Section 4 of this act if he determines and publishes his reasons therefore that use by that class of children of a child restraint system would be impractical by reason of physical unfitness or other medical problem or body size. The driver transporting any child exempted from the requirements of this act

shall carry or have in the motor vehicle a certificate issued by the Department identifying each child's exemption and the reason therefore.

SECTION 7. EFFECT OF NONUSE IN CIVIL LITIGATION. Failure of the driver to ensure that a child restraint system is provided and properly used by every child subject to the requirements of this act shall create a presumption of negligence on the part of the driver.

SECTION 8. PENALTIES. (a) Violation of this act is a misdemeanor, punishable upon conviction thereof by a fine of not less than ten dollars ($10) nor more than fifty dollars ($50). (b) Penalties shall not be applied to out-of-state residents whose state of residence does not have a similar law, it being the primary objective of this law to promote safety. However, enforcement officers shall issue warnings and advisories.

SECTION 9. EFFECTIVE DATE. This act shall take effect on July 1, 1976, the public welfare requiring it.

FROM: BOB EVANS, NTSB HQ

National Transportation Safety Board

Washington, D.C. 20594

Safety Information

FOR IMMEDIATE RELEASE: December 7, 1982

SAFETY BOARD URGES MANDATORY LAWS IN CHILD SAFETY SEAT USE

SB 82-79/3654

The National Transportation Safety Board today urged the Governors and Governors-elect in 31 states, as well as the Mayor of the District of Columbia, to enact legislation requiring the mandatory use of child safety seats for motor vehicle crash protection. Patricia Goldman, Vice Chairman of the Safety Board stated that the Board's action resulted from its findings to date in motor vehicle accident investigations involving young children, as well as statistics demonstrating the effectiveness of child passenger safety programs in those states which have them.

Vice Chairman Goldman, noting that motor vehicle accidents are our nation's leading killer and crippler of young children, stated that mandatory use of safety seats is essential "in order to reduce needless deaths and disfigurement of innocent children." More than 1,300 children were killed over the last two years, and over 10,000 seriously injured or permanently disabled during the same two-year period. Goldman stated that these statistics "are particularly tragic when you consider that an estimated 90 percent of the fatalities and a great majority of the injuries could have been prevented by the proper use of safety seats."

The Board's recommendation letters urged Governors in those states that do not presently have mandatory child passenger protection laws on the books, to "include in your 1983 legislative program, legislation to require use of child safety seats from infancy through age 4 to reduce the likelihood of death, disability or disfigurement in motor vehicle crashes."

A growing number of states have found that just as state health laws are appropriate to require immunization of children against life-threatening and crippling diseases, young children must be "immunized" by legislation against the consequences of crashes -- which kill and cripple more children in this country than any major disease. To date, 23 states have enacted child passenger safety laws and 19 of those laws include provisions requiring use of child safety seats by the general public.

- more -

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: December 7, 1982

Forwarded to:

Honorable Bill Sheffield
Governor-Elect of Alaska
Transition Office
Plaza 201 East Third Avenue
Anchorage, Alaska 99501

SAFETY RECOMMENDATION(S)

H-82-59 and -60

The National Transportation Safety Board recommends that you include in your 1983 legislative program a requirement for the mandatory use of child safety seats for the protection of young children riding in motor vehicles and that you adopt a Statewide child passenger safety program. The Safety Board believes, as a result of its findings in accident investigations and its review of the experience of States which have enacted such legislation and undertaken such a program, that these measures can be used effectively to bring about a significant reduction in deaths and injuries to young children involved in motor vehicle accidents.

Motor vehicle accidents are the leading killer and crippler of children in this country. Children from infancy through age 4 are especially vulnerable to death, disability, and disfigurement, even in minor crashes. In the last 2 years, infants and toddlers through age 4 who were riding in motor vehicles were killed in crashes at a rate of 1 every 13 hours. More than 1,300 were killed during these 2 years, and over 10,000 were seriously injured or permanently disabled. The most tragic aspect of these losses is that they are needless; an estimated 90 percent of the fatalities and the great majority of the injuries could have been prevented by the proper use of child safety seats.

As part of a study of child motor vehicle passenger protection, the Safety Board is conducting a concerted program of in-depth investigations of crashes involving children from infancy through age 4. Enclosed for your information are brief summaries of three accidents. These accidents illustrate crash risks to children unprotected by child safety seats, including the risk of ejection, the danger to children riding in the laps of adults and, in one case, the dramatic difference in crash consequences for two children in the same vehicle, one protected by a child safety seat and one unrestrained. We also are investigating four other crashes in which infants between the ages of 3 weeks and 1 year, who were protected by child safety seats, escaped unharmed (or in one case, with minor injury) when adult occupants in the same vehicle were killed or seriously injured. Other investigations in progress include cases in which young children who were unprotected by child safety seats received facial or other injuries in minor accidents where other restrained or unrestrained vehicle occupants were uninjured.

3654

Motor vehicle accidents are now being recognized as a major public health problem and a proper subject of public health policy. A growing number of States have found that just as State health laws are appropriate to require immunization of children against life-threatening and crippling diseases, young children must be "immunized" by legislation against the consequences of crashes--which kill and cripple more children in this country than any major disease. To date, 23 States have enacted child passenger safety laws, and in 19 of these States the laws include provisions requiring use of child safety seats by the general public. While these laws vary to some extent from State to State, they are consistent in their basic philosophy that new and more effective public programs are needed to deal with this serious safety problem.

The best example to illustrate what can be achieved by such a program is the experience of Tennessee, the first State to undertake a broad-scale child passenger safety program including a law requiring the use of child safety seats. The results now being reported are impressive: since Tennessee began implementing its program in 1978, child safety seat usage rates have tripled and crash fatalities of children in the age group affected by the law have been cut by more than 50 percent. Before the 1977 law, fatalities of child passengers averaged 20 to 25 annually. That number was reduced to 10 in 1981, and the number of fatalities reported for the first 9 months of 1982 was 5. The experience reported in Tennessee indicates that this kind of program can significantly reduce child passenger fatalities in crashes. A brief description of some of the activities undertaken in Tennessee, which have been found valuable there and elsewhere, is enclosed for your information.

The Safety Board believes that in addition to enacting a law requiring use of child safety seats, each State should develop a program of activities to encourage compliance and enhance the effectiveness of the law. These activities should include visible and aggressive enforcement; dissemination to the public of information to assure that the requirements are fully understood; education of the public (both adults and children) to explain the problem and the need for crash protection, as well as to emphasize the importance of proper use of child safety seats; sufficient public and/or private child safety seat loan programs or similar activities to assure the availability of seats in the community and to meet the special needs of low-income families (some of them with two or more children in the affected age group), who would otherwise be unable to comply with the law; and ongoing evaluation of such activities to analyze and measure the results and identify the need for action to further improve child passenger safety policies and programs.

Given the magnitude of the child passenger safety problem and the number of fatalities and injuries that are being incurred by children not protected by child safety seats in crashes, the Safety Board strongly encourages and supports the adoption of public policies and programs which have been demonstrated to be effective in reducing these tragic losses.

Therefore, the National Transportation Safety Board recommends that the Governor-elect of Alaska, as you prepare for your transition into office:

> Include in your 1983 legislative program, legislation to require use of child safety seats for child passengers from infancy through age 4 to reduce the likelihood of death, disability, or disfigurement in motor vehicle crashes. (Class II, Priority Action) (II-82-59)

Develop a Statewide child passenger safety program including aggressive enforcement of laws requiring use of child safety seats, public information and education programs on their need and proper use, child safety seat loan or similar programs, and ongoing evaluation of such activities. (Class II, Priority Action) (II-82-6[illegible])

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . . to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations." (P.L. 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations. Therefore, we would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and McADAMS, BURSLEY, and ENGEN, Members, concurred in these recommendations.

By: Jim Burnett
Chairman

Enclosures: 1. NTSB Investigations
2. Programs in Tennessee

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

Investigations of Accidents Resulting in Death
To Unrestrained Children From Infancy through Age Four

NTSB Investigation No. NYC82HCR02

About 1 p.m. on June 28, 1982, a Volkswagen sedan that was traveling on Columbia Street in Rensselaer, New York, began a left turn into the parking lot of a restaurant and was struck on the right side by a motorcycle. The Volkswagen was occupied by two children in the rear seat, both about 2 years old, and their mothers in the front. One mother (the driver) was uninjured, and the other received a small cut on the right arm. One child, who was riding in a child safety seat, received minor lacerations from flying glass. The child riding next to her who was not protected by a child safety seat died of multiple injuries including a broken neck. The investigation resulted in a preliminary finding that if that child also had been protected by a child safety seat, he probably also would have survived.

NTSB Investigation No. NYC82HCR03.

About 12:30 a.m. on July 26, 1982, near Maddox, Maryland, a Chevrolet sedan was traveling on State Route 238 when the vehicle failed to negotiate a curve and went off the side of the road. The vehicle sideswiped a utility pole, went down a shallow embankment and overturned in a soybean field. The vehicle was occupied by a young married couple and their 2-year old daughter, who were returning home after a visit to the child's grandmother. The parents, although not restrained by seatbelts, received only minor injuries in the accident and were not hospitalized. The 2-year-old girl, however, who was sleeping in the rear seat and was not protected by a child safety seat, was thrown from the vehicle and died of massive skull injuries. The investigation resulted in a preliminary finding that the child probably would have survived if she had been protected by proper use of a child safety seat.

NTSB Investigation No. NYC82HCR05

About 5:15 p.m. on July 27, 1982, a Dodge sedan traveling on State Route 417 near Addison, New York, crossed the yellow centerline and collided head-on with a Ford sedan. The Dodge was occupied by three adults and two infants, all of whom were in the front seat unrestrained by either seatbelts or child safety seats. The infants, ages 5 months and 15 months, were each riding in the lap of one of their parents. They were crushed into the dashboard by the weight of their parents' bodies and died of massive skull injuries. The parents and the driver of the Dodge survived with minor injuries. The investigation resulted in a preliminary finding that the two infants probably also would have survived if they had been protected by proper use of child safety seats.

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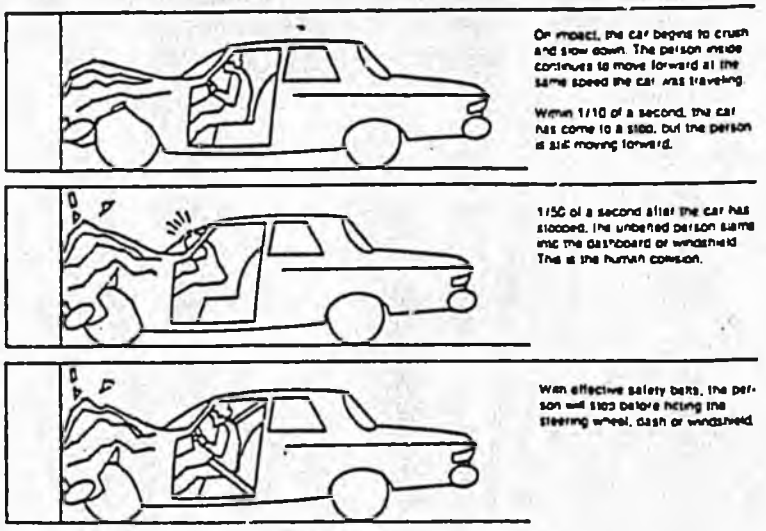
designed with a latching device that locks the safety belt in place if your car should come to a sudden halt. This latching device keeps you from hitting the inside of the car or being ejected. It's there when you need it."

Belt Fact Sheet

The Human Collision



The car has come to a complete stop within one tenth of a second. However, the unbelted driver is still moving along inside the car at 30 mph. It will take the driver about one-fiftieth of a second more to hit something—say the windshield or the steering wheel. That's the human collision. It happens about 0.02 seconds after the first collision, and belts can make a big difference in determining how serious that second collision is. A lot of people think they are strong enough to brace themselves in a crash. They aren't. At just 30 mph you'd be thrown toward the dash with the same force as if you'd jumped head first off a three-story building. No one's arms are anywhere near strong enough to "catch" himself and break a three-story fall. Safety belts are, though. And that's why people need them, even in a low-speed crash.

How Effective are Safety Belts?

Most people accept the fact that wearing safety belts offers protection in a crash, but too few bother to find out exactly how much protection they can expect. If they asked, they would probably be surprised by the answer. While researchers may differ by a few percentage points either way, average figures coming out of safety belt studies look like this:

- Safety belts cut the number of serious injuries received by 50 percent.
- Safety belts cut fatalities by 60 to 70 percent.

To put these figures in other words, not wearing a safety belt doubles your chance of being hurt seriously in a crash. Serious injuries received in crashes often involve the head or spinal cord. In fact, in the U.S., auto accidents are the number one cause of epilepsy (from head injury) and paraplegia (from damage to the spinal cord). The restraining action of safety belts—especially shoulder belts—helps explain why they so drastically reduce the likelihood of being seriously hurt. Wearing just a lap belt gives you twice as good a chance of living through a crash as you'd have if you wore no belt at all. And using a lap/shoulder belt combination makes your chances of survival *three to four times better* than they are if you drive beltless. One important note: These improved chances of escaping injury or death thanks to safety belts hold true *regardless of speed*. Whether you're going 5 mph or 75 mph, you're a lot better off using belts.

The aim of safety belts is to:

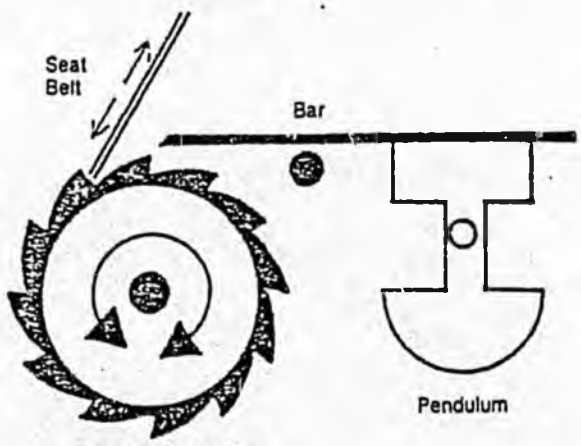
- First, maximize whatever benefits come from the First Collision through "riding down." By making the impact of the first collision work on you sooner, belts give you the benefit of increased stopping distance and dissipation of the forces of impact by the car itself.
- Second, minimize the harm of the Second Collision. By taking the forces of impact quickly (but not too quickly), the belts dissipate those forces through a relatively safe medium (the belt itself) instead of through a dangerous medium (glass or steel).

Safety belts help occupants in five ways:

1. There is the *"ride down" benefit*, in which the belt begins to stop the wearer as the car is stopping.
2. The belt keeps the *head and face* of the wearer from striking objects like the wheel rim, windshield, interior post, or dashboard.
3. The belt *spreads the stopping force widely across the strong parts of the body*
4. *Belts prevent vehicle occupants from colliding with each other.*
5. Belts help the driver to *maintain* vehicle control, thus decreasing the possibility of an additional collision.

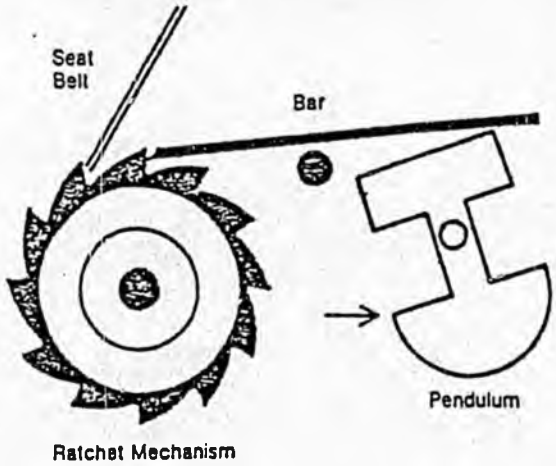
The Safety Belt: How It Works

Normal Conditions



Under normal conditions, the pendulum and bar are in their rest positions. The reel, which holds the belt, is free to rotate. As the occupant moves forward the belt moves unrestrained with the occupant.

Emergency Conditions

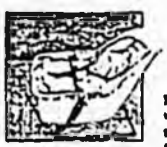


Under emergency conditions, such as in a collision, the pendulum moves forward under the force of the impact causing the bar to engage the ratchet. The reel and seat belt now lock in place and the occupant is held firmly in place.

Types of Safety Seats

Child safety seats come in several shapes and sizes because different stages of a small child's development require different types of protection. So parents have several considerations to keep in mind when selecting a safety seat. There is no "best" seat. The important thing is to find the seat that best suits you, your child, and your car. Be sure that the safety seat you choose will fit the seat belts in your car(s). Insist on the right to return the seat if it does not fit.

Infant Carriers



Up until they weigh about twenty pounds, newborns require a carrier which is a tub-shaped bed that cradles the child in a semi-erect position. The infant is held securely in the carrier by means of a harness. Infant carriers are designed to face the rear of the car and must be secured to the seat by the adult belts already in the car. Accident data show that the rear seat is generally safer than the front seat. However, many parents alone in the car with their baby feel uncomfortable placing an infant in the rear seat facing to the rear where they cannot see the child. Since the rear-facing infant carrier is designed to protect the baby's head from the dashboard and windshield, the front seat is a suitable alternative. It is most important, however, that infant carriers never be used facing the front of the car. For a very small infant, it may be more comfortable to roll up small blankets or towels and place them inside the carrier at the sides of the infant's body.

Convertible Models

Some models of infant carriers convert to child seats so that they can be used from birth until the child weighs about forty pounds. For economic reasons, a convertible model may be a sound choice, since there is no need to buy a second seat when the child outgrows the infant mode.

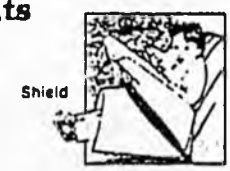
If you decide to buy a convertible model, there are several points to consider. Some infant seats that convert to child seats require a top tether strap that must be secured to the rear seat belt if used in the front seat (see diagram). To use this type of seat in the rear seat requires that a hole be drilled in the rear window shelf, or cargo area of station wagon or hatchback. Correctly-used tether straps add extra stability to seats and less head movement in a crash. However, if you do not intend to properly anchor the tether strap every time you place the seat in the car, do not buy this type of seat. There are convertible models that do not require a tether strap.

Proper Tether Use

Attached to Rear Seat Belt

Attached to Rear Window Shelf

Toddler Seats



For children who weigh more than twenty pounds and can sit up by themselves, there are two types of child seats. The shield type consists of a seat with a padded and slightly flexible impact shield that comes up close to the child's stomach and then bends away from the face and chest. The safety seat itself is held securely in place by an adult lap belt which is fastened around the shield. An advantage of this type of restraint is that parents do not have any harnesses or buckles to deal with. Children can learn to climb in behind some shield models with the seat already secured in place. However, children can also climb out of the shield while the car is moving, therefore, this type should only be used with well-behaved and disciplined children.

The harness type secures the child to the safety seat with a five-part belt system. This type of seat may be more complicated to use than the shield type but they are harder for an active child to wiggle out of and may allow for more freedom of movement within the seat. Some of the newer models of safety seats secure the child with a combination of shield and harness.

It is important to note whether or not the seat you choose requires a top tether strap that must be secured to a rear seat belt or the window shelf behind the rear seat (or cargo area of station wagon or hatchback). Again, if you do not intend to anchor the tether strap every time you place the seat in a car, choose a model that does not require a top tether.

Harness

Booster Seats

A new type of seat currently being marketed is the automobile booster seat. Booster seats are designed primarily to fill the gap between when a child outgrows the standard child safety seat and when the child can use the adult belt only and still see out the window. Some models can also be used for smaller children, as small as twenty pounds, and all can be used for children up to about sixty-five pounds. It is extremely important to note that booster seats should only be used with upper torso support, either by using the lap and shoulder belt, or for maximum safety, by using the body harness supplied with the booster seat in the rear seat. The body harness is secured in the same manner as a standard top tether strap. A booster seat without upper torso support is less effective than using the adult lap belt without the booster.

Adult Safety Belts

Adult safety belts should be used for children who have outgrown their safety seats or for children who can sit up by themselves when no safety seat is available. The belt should be snug and as low on the child's hips as possible. If the shoulder belt crosses the child's face or neck, the shoulder belt should be placed behind the child's back after the buckle has been fastened. Parents should check to make sure the child's head will not hit the dash in a crash or sudden stop. If this could happen, the child should be placed in the rear seat.

Pillows or cushions should not be used to boost a child. They can slide out from under the child, allowing him or her to submarine under the lap belt, or allowing the child's head to move so far forward that it strikes the car's interior.

U.S. Department of Transportation
National Highway Traffic Safety Administration

U.S. GOVERNMENT PRINTING OFFICE 829-980

THE TENNESSEE EXPERIENCE

The National Highway Traffic Safety Administration says its evaluation of the Tennessee law, which became effective January 1, 1978, shows a 50 percent reduction in major injuries and deaths of small children in 1978, and a 75 percent reduction in 1979. Over the two-year period it is estimated there would have been 40 additional major injuries and seven additional deaths without the use of restraint systems.

The Tennessee Child Passenger Protection Act requires parents to protect their children under age four by properly using child restraint systems, or else by assuring that the child is held in the arms of an older passenger in the vehicle. This was the first state law to require passenger restraint of any kind, and despite the major weakness of the so-called "babes in arms" provision, the law has become the focus of a great deal of national attention. The practice of holding a child in the lap is unsafe, because in a crash the child can be crushed between the adult and the dashboard of the car, or torn from the adult's arms by the extreme forces of the crash.

NHTSA and Tennessee participated in a public information campaign to increase public awareness of the law, and in the evaluation of the impact of the legislation. The evaluation included actual observations of child restraint usage in five metropolitan centers and three rural locations in each of five semiannual surveys.

Before the law went into effect the statewide usage rate was only 9.2 percent. At the end of 1978, one year after the law became effective, the statewide average usage rate was 14.4 percent, double the national rate for child seat use. By the end of 1979, the Tennessee rate was 18.7 percent, and higher in some parts of the state. Usage rates have continued to increase in 1980, and are as high as 25 percent in Knoxville and Nashville.

In 1979, the Tennessee State Patrol purchased child restraints to be carried in the trunk of each patrol car. Upon issuing a citation to a parent for non-use of a child seat, the officer loans the family a seat to be returned to court when they pay their fine. If the parents can show proof of purchase of a child restraint system, the officer requests the judge to drop the charge. Since enforcement of the program went into effect, 1,260 citations have been issued by the Tennessee Highway Patrol.

Source: U.S. Department of Transportation, National Highway Traffic Safety Administration, Press Release, October 6, 1980.

Press Intelligence, Inc.
WASHINGTON, D.C. 20005
Front Page | Edit Page | Other Page

GARDEN CITY, N.Y.
NEWSDAY APR 1 1982
EVENING -- 494,998
SUNDAY -- 519,207

A Tenn. restraint law at work

After almost two years under a state-mandated program to protect young children in auto accidents, officials in Tennessee found something lacking—enforcement.

Tennessee was the first state in the country to adopt a law requiring special restraints, or car seats, for young children. The law there requires that children under 4 years old be in child restraints in cars when traveling with parents or legal guardians.

If the children are not in car seats, a ticket is issued to the parent or guardian. The maximum fine is $10.

The law went into effect Jan. 1, 1978, but, late in 1979, complaints of lax enforcement arose. Twenty months after the law went into effect, state officials dug through records of the state police, who enforce the law on state and interstate roads, but they found that only about 50 citations had been issued.

"Initially, we just assumed that they would start enforcing the law because it was a law," said Sheri Maddux of the Governor's Highway Safety Program.

Robert Sanders, a county health official in Rutherford, Tenn., and a pediatrician who led the fight for the law's adoption, said that the situation changed dramatically under a new commissioner of the state department of safety, Gene Roberts, who took office in 1979.

Roberts, Maddux said, sparked an intensified enforcement effort, and, in just the last four months of 1979, 414 citations were issued. In 1980, the figure climbed to 1,402 and it rose further—to 2,627—last year. All told, through the middle of last month, 4,895 tickets had been issued.

In 1979, 22 children under 4 years old were killed in auto accidents in Tennessee. In 1980, the first full year when the law was being more vigorously enforced, there were 15 such fatalities, and last year there were 10.

"Enforcement is very important to the program," Maddux said. Enforcement and, she added, education.

"The law is not designed to be punitive," Maddux said. When Commissioner Roberts, in charge of the state police, moved enforcement into higher gear, he also asked the courts to drop the charges whenever violators could show that they had acquired a child restraint. Moreover, when a trooper tickets someone under the child restraint law in Tennessee, educational material is given *and* a car seat is given, too, on loan. There are 504 cars with troopers who police the roads daily and, for this program, each of those vehicles is stocked with a car seat.

It may be difficult for a trooper to spot the child under 4 who's sitting, with or without a regular seat belt, in a car, said Clyde Willhoit, executive officer of the state safety department in Tennessee. But, he said, "As you ride down streets, you can see children standing up or sitting on a mother's lap. It's very obvious . . . You see what's happening."

Not all troopers were enthusiastic about the law. To some troopers, Sanders said, enforcement of the child-restraint law was just one more thing to do. Also, he said, education of the troopers on child restraints may have been inadequate initially, and he and other pediatricians agreed to help correct that through training sessions.

Roberts added: "Most police don't like to penalize parents." The courts' cooperation in waiving fines if violators showed that they had gotten a car seat was important, he said. With that policy, not mandated by the law, Roberts said, "policemen could feel like protectors of children instead of punishers of parents."

By all accounts, use of child restraints in Tennessee has risen. One survey in Nashville and Knoxville, by the nonprofit Insurance Institute for Highway Safety, found that use of child restraints had risen from 8 per cent in 1977 before the law went into effect to 29 per cent in 1980. Maddux forecast that a more recent and more extensive state survey that is still being tallied will show that use has climbed to about 35 per cent.

In the meantime, use of child car seats in neighboring Kentucky—which has no such law—was 11 per cent in 1977 and only 14 per cent in 1980, according to the insurance group's survey.

Enforcement on roads policed by local agencies rather than by troopers appears to be mixed, Maddux suggested. The state had tried to emphasize the importance of the law to the "locals," but, she said, the effort can hinge on any number of things: "It just depends on how important it is to the chief and whatever."

Roberts said it can be more difficult to prod local police departments to emphasize enforcement when their focus is not traffic control. "Comprehensive police agencies have to answer the burglary calls, the rape calls, the mugging calls. Felonies take priority. In this country, we tend to accept traffic fatalities as something endemic to the culture. I hope that's changing."

Sanders is optimistic, even though most children in Tennessee still ride unbuckled: "It just takes a long time to get this across." —Gilgoff

IMPROVING CHILDREN'S BEHAVIOR DURING AUTOMOBILE RIDES

by Edward R. Christopherson, Ph D.

Practically everyone with a driver's license has pulled up to a red light and seen children in the car next to them jumping up and down, from front seat to back seat, and sticking their heads out of the window. You might even remember seeing a child climb on his parent's shoulders or head while traveling down the street. Some of the more passive things that children like to do in the car are shift the gears (usually to neutral, which results in the engine revving up), turn on the radio, and go through the glove compartment.

How do I know about all of these nice things that children do on car rides? Simple — I'm a parent of a normally active three-year-old. How do I know that other parents have the same problems? Because I've spent some time researching this question.

My attention was initially drawn to children's behavior on car rides because we had three cars — in two of these cars, our son behaved very nicely. He played quietly, talked to us, and looked out of the window. Some of the time he slept (usually just on longer trips). In the other car, which didn't have room for two adults and the special infant car seat, our son did all of the things that we'd seen so many other children do before.

It took some time to figure out that the crucial difference wasn't the car but the presence or absence of the car safety seat. This finally dawned on me when I started using the third car to go get donuts on Sunday mornings, and I transferred the car seat since there wasn't anyone to hold on to my son. Presto — his behavior in the third car was as good as his behavior in the other two.

Then, since I work at a medical center pediatrics department where research is looked upon favorably, I decided to see if other parents would report findings similar to ours with regard to the car seats. One of my research assistants interviewed 60 mothers at our outpatient clinic and 60 mothers at a private pediatric office. The results of these interviews were remarkable. Most of the mothers did not use safety car seats, even if they had purchased one or received one as a gift. Most of the mothers also reported that their children did stand up in the car, or stick their heads out of the windows, or fool around with the dashboard.

The next step was to have an observer actually ride with mothers on local car trips to observe how children behaved in the car. We placed an ad in the local paper for mothers interested in participating in a research study at $5 per trip. The response was enthusiastic.

Another one of the research assistants went for 15-minute car rides with these mothers — some had children in car seats (already), and some did not use car seats. The difference between the two groups was startling. The children in car seats, for the most part, behaved just like my son did in his car seat — they played with a toy, conversed or looked out of the window. The children who did not use car seats made our researcher very nervous. They climbed around, stuck their heads out of the window, and generally were very disruptive.

With the help of a small grant from one

of the car seat manufacturers, we were able to offer the mothers who did not use car seats a free car seat and a short course (about 10 minutes) in how to introduce the seat to the child. This short course involved pointing out to the child that it is hard to see out of the windows without standing up, and that with a car seat he/she would be able to look right out the window since he/she would be sitting up so much higher. We also pointed out to the mothers the importance of conversing with their child about things that the child could see, now that he/she was in that car seat. For example, "See that big dog over there," "There's McDonald's! You like to eat at McDonald's, don't you?"

Again, we got the same dramatic results. When children who had not been using car seats started using them, their behavior in the car improved dramatically. The mothers who didn't use car seats and said that they weren't interested in using one, continued to have the same kind of behavior that they'd had throughout the study.

The study was considered to be good enough to be published in *Pediatrics*, the journal of the American Academy of Pediatrics. But much more important is that instead of the scare tactics which have been used for years to try to get parents to purchase and use car seats (by this I mean the statistics on the number of children injured or killed each year in car accidents), parents can now be assured that almost all children will behave better in the car if they are riding in a car seat every time that they go for a ride in the car. Then, as a side benefit, children will also be much safer in the event that an accident does occur.

As a general rule of thumb, what we're now recommending to parents is that they get an infant car seat to transport the baby home from the hospital and use it for every trip after that. Chances are that if you start your child off in a car seat and use it consistently, 1) he'll behave much better, 2) he'll enjoy the trip much more because you won't be upset about his poor behavior, and 3) he'll be safer if you do have to stop suddenly or if you are in an accident.

Dr. Christopherson is associate professor of pediatrics at the University of Kansas Medical Center and a research associate in the Bureau of Child Research, University of Kansas.

Safety car seats for babies prevent needless injuries

By ELEANOR FLAGLER
Louisville Times Staff Writer

You've seen the happy family pile into the station wagon for a trip to the lake. The kids are scrambling around the back seat. Dad is at the wheel and Mom is cradling the baby in her lap. Off they go, excited and laughing.

Nobody's wearing a seat belt or sitting in a child safety seat. The parents decided the seats were too expensive. Besides, they're too much trouble. The kids wouldn't sit in them anyway.

This family is heading for the statistics ledgers of the state highway department. When the brakes screech and the car skids at that sudden stop — even at low speeds — there's nothing to protect the children.

The parents may be barely jarred when that accident occurs. But children in the back can be knocked around, flying head first toward the dashboard, the windowposts or even out the windows.

And the baby could fly out of his mother's arms, smashing into the dashboard or the windshield.

Automobile accidents have injured or killed many Kentucky and Indiana children, according to traffic research institutes.

These figures include only children who were passengers in cars — not those struck by motorists.

✔ In Kentucky, 20 children under the age of 4 died and 1,350 suffered serious injuries in automobile accidents in 1978.

✔ In Indiana, 60 children under 4 were killed — 40 of them 1 year old or younger — and 1,180 were injured in 1978.

✔ Nationwide, about 800 children under 4 were killed and 100,000 suffered serious injuries.

In accidents, sometimes the injuries are simple bumps on the noggin. But many times, it's a lot worse: Cracked skulls, ruptured spleens and livers and fractured thigh bones are common, says Dr. Mary Smith, co-director of the emergency room at Louisville's Children's Hospital.

Traffic safety experts say most of these tragedies could have been avoided if everyone in the car had been properly strapped in.

For adults and larger children, they say, this means a seat belt. For children 4 and under, it means a crash-tested child safety seat properly installed.

Rob McBride is director of the child-restraint program at the Traffic Safety Institute at Eastern Kentucky University. He says the great majority of children injured or killed in automobile accidents weren't wearing any kind of restraint.

Burleigh Seaver, social-science-program specialist at the National Highway Traffic Safety Administration, says properly used safety seats could save the lives of 90 percent of those babies killed and prevent 70 percent of the injuries.

McBride says only a tiny fraction of parents — about 3.5 percent — have properly installed, crash-tested baby restraints in their vehicles. Earlier this year, a team of researchers observed 1,000 children in Jefferson and Fayette counties riding in cars. Of these, 7 percent were in approved safety seats. But only half of those were properly used.

Why don't parents use them? The reasons are many, according to McBride and others.

One is the price tag. They range from $15 to $57 in stores in this area. Many parents don't want to pay that.

One local dealer kept a $42 quality model for more than two years. Finally it was sold at a reduced price. The dealer no longer carries the seats.

He explained: "There are very few people who think their kid's worth $42. That's a sobering thought."

Others note that most parents don't use seat belts themselves. Why would they for their children?

The Tennessee legislature became so concerned with the issue last year that it passed a law requiring motorists to put infants and small children in approved safety seats.

But safety experts question the law's effectiveness. Some say it's a start. Others say it's got so many exceptions it's unwieldy and unenforceable.

Instead of pushing for a law in Kentucky, McBride and others are trying to convince parents to use safety seats voluntarily. A program similar to Kentucky's is proposed for Indiana.

McBride tells parents it's a simple matter of physics: Force = Mass × Acceleration. That means a 20-pound child in a car going 30 m.p.h. will hit the dashboard or windshield at a force of 600 pounds.

Since most parents try to protect their children from other dangers, McBride believes they just don't understand the danger in cars.

McBride's office has printed 60,000 brochures to distribute across the state in doctors' offices, day-care centers, anywhere parents might see them, to tell parents that car accidents kill and maim more children than any other single type of accident or disease.

Also, with the cooperation of the Kentucky safety institute, Jaycee-ettes and other groups are considering establishing a bank of safe child-care seats. The groups would raise the money to buy the seats, then rent or lend them to families. When the child outgrows the seat, the parents turn it in to be rented to another family.

McBride says this program has worked successfully in North Carolina and Michigan. He welcomes community groups anywhere to join in the program. He has plenty of information, posters and pamphlets and will help any group set up the program. He can be reached at 606-622-2236. Or write him at the Traffic Safety Institute, College of Law Enforcement, Eastern Kentucky University, Richmond, Ky. 40475.

Safety Car Seats, cont'd.

Staff illustration by Herman Wiederwehl

Crash-tested car seats

Not all infant and child seats on the market have passed simulated crash tests. The following safety seats have performed satisfactorily in such tests and are available in metropolitan Louisville and Southern Indiana department stores, discount department stores, children's specialty shops and automobile dealerships. If they don't have what you want, most will order them.

Name	Manufacturer	Child's Weight	Price
Bobby-Mac 2 in 1	Collier Keyworth	7-35 lbs.	$30-$38
Bobby-Mac Deluxe	Collier Keyworth	7-40 lbs.	$35-$44
Bobby-Mac Super	Collier Keyworth	7-40 lbs.	$48
Child Love Seat	General Motors	20-40 lbs.	$40-$55
Dyn-O-Mite	Questor Products	7-17 lbs.	$28
Fitz-All	Questor Products	18-43 lbs.	$23
Infant Love Seat	General Motors	7-20 lbs.	$24-$31
Kantwet Care Seat #908	Questor Products	7-43 lbs.	$37
Mopar Infant Seat	Chrysler Corp.	7-21 lbs.	$15
Mopar Child Seat	Chrysler Corp.	21-50 lbs.	$21
Safe-T-Seat #78	Peterson	7-40 lbs.	$42-$57
Safety Shell #75	Peterson	7-40 lbs.	$48
Tot-Guard	Ford Motor Co.	20-50 lbs.	$38
Trav-L Guard	Century Products	7-43 lbs.	$37
Wee Care #597	Strolee	7-43 lbs.	$48-$50

Staff illustration by Herman Wiederwohl

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Safety Shell #75	Peterson	7-40 lbs.	$46
Tot-Guard	Ford Motor Co.	20-50 lbs.	$38
Trav-L Guard	Century Products	7-43 lbs.	$37
Woo Care #597	Strolee	7-43 lbs.	$48-$50

The Louisville Times, Thursday, July 26, 1979, Page C1

Get a crash-tested model and use it properly

By ELEANOR FLAGLER
Louisville Times Staff Writer

Safety experts emphasize two things about child safety seats:

Look for a crash-tested model. Use it properly every time your child gets in the car.

How do you choose one? Right now, it isn't easy. Federal standards for the seats do not require crash-testing and do not insure adequate protection in a crash, according to The Highway Safety Research Center of the University of North Carolina.

That's why, the center says, it's not worth your money to buy a seat that has only passed the federal standards. Instead, the center and another group, Physicians for Automotive Safety, say to buy a model that has performed well in simulated crash tests.

To get complete lists of the effective models and how to use them, write:

✓ Traffic Safety Institute, College of Law Enforcement, Eastern Kentucky University, Richmond, Ky. 40475, for copies of the pamphlet prepared by the North Carolina center.

✓ Physicians for Automotive Safety, Communications Department, P.O. Box 208, Rye, N.Y. 10580. Their pamphlet is more extensive and costs 50 cents. Allow three weeks for delivery.

Which is the best of all? Annemarie Scheiness, executive director of the physicians group, says the best is the one you will use properly every time. Unless the manufacturer's instructions are carefully followed, even the "safest" seat won't do much good, she says.

Some seats have more straps to fasten than others. Be realistic about how much you are prepared to do before making a choice, the group's pamphlet says.

It's easy to forget about the web of harnesses and straps when Susie is squalling. But Burleigh Seaver of the safety administration says parents should stick to it and say, "'This car won't go until you're in there.' The child will learn to sit still in the seat and will not object."

Besides protecting your child, the seat also prevents him from sticking his head out the window or otherwise distracting you when you're driving — a major cause of accidents, Seaver said.

There are basically three types of seats, although some models combine aspects of several. Also, some models convert from an infant carrier to a child seat.

These are the basics:

✓ The infant carrier, generally for babies 7 to 20 pounds. This is a tub-shaped bed that faces to the rear of the car — never forward. It is secured to the car by the adult seat belt. The baby rides in a partly upright position and must be strapped in with a harness.

Safety experts say this is the only way your infant should ride in a car, from the moment you take it home from the hospital.

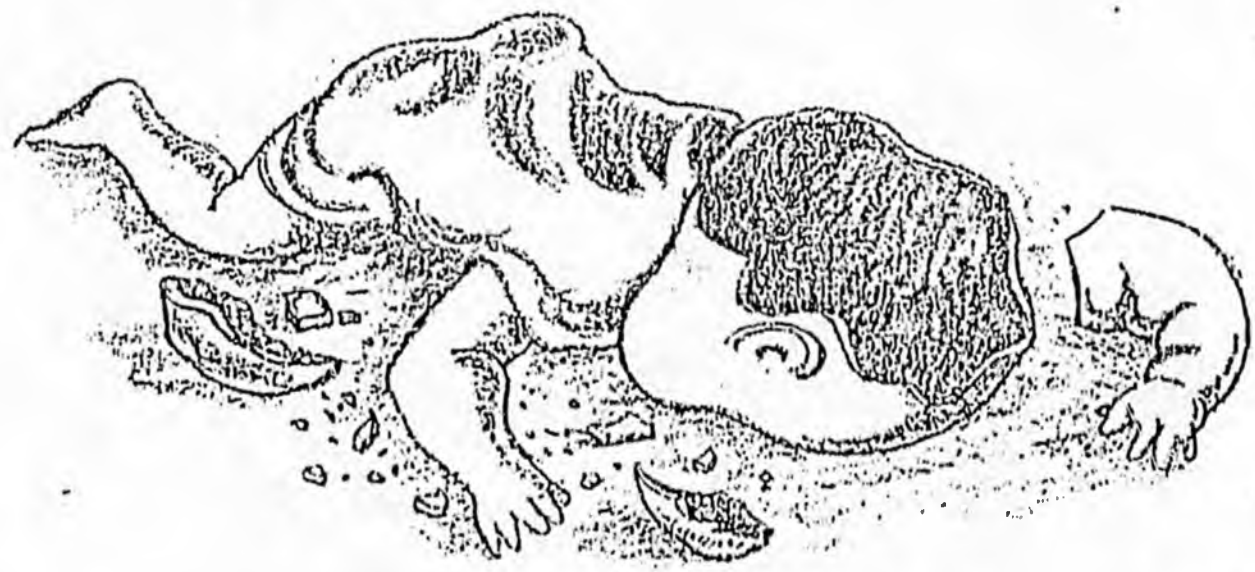
✓ The child seat, for children more than 20 pounds who can sit up alone. One is the protective shield type. This has a seat with a padded and slightly flexible shield that comes up close to the child's stomach and then bends away from his face and chest.

This is one of the easiest models to use since children can crawl in alone. But it would not be good for children who are overly active and hard to discipline because they can climb out of it. Also, it's not recommended for children with glasses.

Another type of child seat is the traditional car seat. The child is held in by several straps. Both the harness and the carrier are tied to the car with an adult's seat belt. Some models also require a top strap, to be bolted into the steel support of the rear window ledge.

If you choose this model, you MUST use the top strap.

✓ The safety harness, for the larger child. This must be installed in the center of the back seat, anchored to the rear seat belt and rear framework of the car. It does not provide as much protection as other restraints, but it keeps the child in the center of the back seat, the safest place in the car.



South Central
Health Planning and Development, Inc.
1135 West Eighth Avenue • Suite 1 • Anchorage, Alaska 99501
(907) 278-3631

December 3, 1982

TO: Folks Interested in Preventing Child Morbidity/Mortality in Automobiles

FROM: Peggy Wilson, President, Alaska Child Passenger Safety Association

SUBJECT: Legislative Hearing

On Friday, December 10, 1982 from 1:00 - 5:00 p.m. and 7:00 to 9:00 p.m. there will be a hearing sponsored by the Senate Health, Education and Social Services on MANDATORY CHILD CAR RESTRAINT LEGISLATION.

Some information put together by Dr. Clint Lillibridge on the effectiveness of such programs in other states is attached.

Numbers of people showing support for an Alaskan law will be important at this point, so please attend the hearing and express your concerns. Also, please pass the word to interested others and urge them to attend.

Time/Date: Friday, December 10, 1982
1:00 - 5:00, 7:00 - 9:00 p.m.

Location of Hearing:
Legislative Affairs Office, 2nd Floor
1024 (or 1016) W. 6th Avenue
Anchorage

Out-of-town people who would like to express their views and encouraged to write:

Senate HESS Committee
950 Cowles Street, #224
Fairbanks, Alaska 99701

MMW/cr

ALASKA
CHILD PASSENGER SAFETY ASSOCIATION

Fatal motor accident analysis.

Washington State 1970-1979

39,500 accidents in which children were passengers.

6,300 were restrained; 2 killed. Death rate 0.0317%

33,200 were not restrained; 146 killed. Death rate 0.4397%

The death rate for unrestrained children was 13-fold increased over restrained children.

Twenty per cent of the unrestrained children were being held on an adult's lap but were killed. Nine out of every ten adults holding the child were not killed.

If all of the children had been properly restrained, how many would have died? Twelve, instead of 148.

One hundred thirty six children died needlessly because they were not properly restrained.

Profile of an accident.

The "typical" child who was killed would be a one year old male infant riding in the front seat of a passenger car without a restraint. The driver of the car was the mother, who was also not wearing a seat belt. The accident occurred between 8 a.m. and 3 p.m. within a few miles of home. The mother had not been drinking an alcoholic beverage. There were no defects in the family car that contributed to the accident. The accident occurred during daylight hours on a state route. The weather was clear or overcast and the surface was dry. In summary, the fatal accident involving a young child in Washington State usually occurred under ordinary conditions. (1)

(1) "Fatal Motor Vehicle Accidents of Child Passengers from Birth through 4 Years of Age in Washington State" by Robert G. Scherz, Pediatrics, Vol. 68(4), October 1981, pg. 572-575.

DOCUMENTATION OF EFFECTIVENESS

TENNESSEE

User Rates for Children Under Four

1977 pre-law	9%
1978 (with law)	20%
1980 (with law)	29%

Deaths

pre-law	20-25/year	
1980	14	
1981	10	(only 1 fatality was in a child who was in an approved child restraint system)

Health Cost Containment

E.R. visit for car accident	$50
Hospitalization	$7-10,000
Funeral	$2,000

MASSACHUSETTS

Usage of Seat Restraints	Education Only (1979)	Mandatory Use Laws (1980)
Age 1 year	41%	70%
2 years	22%	49%
3 years	12%	40%

Estimated savings to the family

$1,100-$55,000 per injury

A BILL

For an Act entitled: "An Act relating to child passenger protection."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS28.35 is amended by adding a new section to read:

Sec. 28.35.246. CHILD PASSENGER PROTECTION. (a) Every driver transporting a child under the age of five (5) years in a motor vehicle operated on the roadways, streets or highways in this state shall provide for the protection of the child by properly securing each child in accordance with manufacturer's instructions in a child passenger restraining system meeting applicable federal motor vehicle safety standards as follows:

does language mean this has to be in statute?

(1) Any child unable to sit unaided in a child restraint system which meets the standards prescribed in 49C.F.R.571.213.

should we state pounds/ height rather than, or in addition to, age?

(2) Any child able to sit unaided but less than five (5) years of age, when transported in the front seat, in a child restraint system which meets the standards prescribed in 49C.F.R.571.213.

(3) Any child able to sit unaided but less than five (5) years of age, when transported in the rear seat, in a child restraint system which meets the standards prescribed in 49C.F.R.571.213, unless the child is secured by a safety belt provided in the motor vehicle.

(b) This section does not apply if: 1) the motor vehicle being driven is a mass transit vehicle, school bus, taxicab, moped, motorcycle, or other motor vehicle not required to be equipped with safety belts under 13.A.A.C.04.270 or federal law or regulations; 2) all seat belts occupied by passengers.

or bus?

(c) The Commissioner of Public Safety may exempt a child or class of children from the requirements of this section if the Commissioner of Public Safety determines that the use of the child restraint system required under (a) of this section is impractical because of physical unfitness or a medical problem. The Commissioner of Public Safety may specify alternate means of protection for children exempted under this subsection.

(d) A person who violates this section is guilty of an infraction. Failure to secure the seat system is not to be considered contributory negligence, nor shall such failure to wear said child passenger restraint system be admissible as evidence in the trial of any civil action.

(e) Violators of this section shall be fined $25.00. A person found in violation of this section may, instead of paying a fine, submit proof of ownership, or rental for not less than one (1) year, of an approved infant or child restraint system to the Court. This shall be acceptable only for first violations and if the acquisition of the restraint system was subsequent to the violation. Subsequent violation within previous 2 years, two points shall be assessed for violation of this section as prescribed under 13AAC08.210.

National Safety Council

Office of Federal Affairs
1705 DeSales Street, N.W.
Washington, D.C. 20036
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A Nongovernmental
Not-for-Profit
Public Service Organization

Contact: Chuck Hurley, Executive Director, or Nancy Berk, Policy Analyst

POLICY UPDATE

OCTOBER 1982

CHILD RESTRAINT LAWS AND PENDING LEGISLATION

STATE	DESCRIPTION
ALABAMA S24	All children less than 3yrs old must be in c.r. when riding in m.v. registered in state. Fine not to exceed $10. Effective 7/1/82.
CALIF. SB537	All children less than 4yrs old or weighing less than 40lbs must be in C.R. when riding in m.v. weighing less than 6001lbs, registered in state and operated by parent/l.g. If parent/l.g. is not driving, safety belt may be substituted. Driver subject to fine if parent not in car, otherwise parent whether driving or not driving is subject to fine. Ticket waived upon acquisition on seat if first offense. $50 fine for 2nd offense, additional $50 for subsequent offenses up to maximum of $200. Signed by Governor 9/8/82. Effective 1/1/83.
CONN. S42	All children less than 4yrs old must be in c.r. when riding in passenger m.v. in the state. Safety belt may be substituted for children between 1-4yrs if riding in back seat only. Exemption for R.V.'s, trucks weighing over 1 ton. Fine $15-100, waived upon acquisition and installation of seat. Effective 10/1/82.
DELAWARE HB154	All children less than 4yrs old must be in c.r. when riding in m.v. owned/operated by resident parent/l.g. $25 fine waived upon acquisition of c.r. Effective 6/2/82 Fine effective 8/2/82. State-wide loaner program in place.
FLORIDA HB289	All children less than 6yrs old must be in c.r. when riding in passenger m.v. or pick-up truck registered in Florida and owned/operated by parent/l.g. Safety belt may be substituted for children from 4 to 6yrs. $15 fine, waived upon proof of purchase. Effective 7/1/83.
ILLINOIS HB608	All children less than 5yrs old must be in c.r. when riding in m.v. or r.v. owned and operated by resident parent/l.g. First offense in $25, subsequent offenses $50. (c.r. means any device approved by U.S. DOT designed to restrain, seat or position child. If child is over 40lbs this would mean safety belts are an acceptable restraint Passed House, Senate in June 1982. Sent to Governor who amendatory vetoed the bill. The legislature will meet in late November to either overide the veto or concur with the Governor's changes. The Governor's version is as follows: Beginning July 1, 1983 all children less than 2yrs old must be in c.r. when riding in passenger m.v. owned/operated by resident parent/l.g. Exception for attending to personal needs of the child. If the child is between the ages of 4-6yrs, they must be in child restraint or safety belt. Beginning July 1, 1984 children between the ages of 2-4yrs must ride protected in a c.r. as well. First offense will be warning violation only, subsequent offenses will be maximum $25 fine.
KANSAS HB2208	All children less than 2yrs must be in c.r when riding in front seat of passenger m.v. owned/operated by parent/l.g. Oral warning only. Sec. of Transportation to develop program of public information. Effective 1/1/82.

STATE	DESCRIPTION
KENTUCKY SB2	All children less than 40inches tall must be in c.r. when riding in m.v. owned/operated by parent/l.g. No fine. Effective 7/15/82.
MASS. HB7162	All children less than 5yrs old must be in c.r. or safety belts when riding in m.v. Exemption for taxis, vehicles not equipped with safety belts, if all other seating positions equipped with safety belts are occupied, or if child is physically unable to use restraints. Fine not to exceed $25, waived upon proof of acquisition. Effective 1/1/82.
MICHIGAN SB115	All children less than 4yrs old must be in c.r. when riding in m.v. operated by resident driver. From 1-4yrs, safety belt may be substituted if riding in back seat. Exemption for nursing mothers. Fine not to exceed $15, waived upon proof of acquisition. Effective 4/1/82.
MINNESOTA SF263	All children less than 4yrs old must be in c.r. when riding in m.v. owned/operated by parents/l.g. No fine, hazard warning only. Effective 1/1/82.
NEBRASKA LB69	Any person furnishing child care must use c.r. when transporting all children less than 1yr old. Seat belt can be substituted for children over 1yr old. No upper age limit. Driver subject to fine and Child Care Center subject to license (to furnish child care) suspension/revocation. Effective 7/17/82.
NEW YORK S3639 Amend. S8679	Originally all children less than 5yrs old must be c.r. when riding in passenger m.v. registered in state. Amended this past session to children less than 4yrs old in c.r. and 4-5yr olds in c.r. or safety belts. Also amended to remove emergency vehicles from compliance. Fine of not more than $25, waived upon proof of purchase or rental of seat. Effective 4/1/82.
NORTH CAROLINA HB893	All children less than 2yrs old must be in c.r. when riding in m.v. registered in state and owned/operated by parent/l.g. Between 1-2yrs, safety belt may be substituted. Exemption if child is occupying seat where safety belts not required, and while attending to personal needs of child. Warning ticket from 7/1/82 to 6/30/84, thereafter $10 fine. UNC-HSRC will conduct effectiveness study. Effective 7/1/82 to 6/30/85.
RHODE ISLAND H5730	All children less than 3yrs must be in c.r. when riding in front seat of m.v. $15 fine. Effective 7/1/80. Amended to include back seat. Fine waived upon proof of purchase. Effective 4/81.
TENNESSEE HB300	All children less than 4yrs old must be in c.r. or held in arms of older passenger when riding in m.v. owned/operated by parent/l.g. Exemption for trucks, r.v.'s. $2-10 fine. Effective 1/1/78. Amended to exclude being held in the arms except when mother is attending to needs of child. Effective 4/1/81.
VIRGINIA HB413	All children less than 4yrs old must be in c.r. when riding in m.v. registered in state and owned/operated by parent/l.g. Between ages of 3-4, safety belt may be substituted. $25 fine waived upon proof of acquisition or for financial inability. Fine money earmarked for state loaner programs. Effective 1/1/83.
WEST VIRGINIA HB517	All children less than 5yrs old must be c.r. when riding in m.v. registered in state. Safety belt can be substituted for 3-4yr olds. $10-20 fine waived upon proof of purchase. Effective 7/10/81.
WISCONSIN AB600	All children less than 2yrs old must be in c.r. when riding in m.v. owned/operated by parent/l.g. From 2yrs-4yrs, safety belt may be substituted. Fine if child is under 2yrs is $30-75. Fine if child is between 2-4yrs, $10-25; if 2nd offense within 3yrs, $25-200. Effective 12/1/82. No fine until 5/1/82.

STATE	DESCRIPTION
CALIF. A1198	Sec. of Business/Transportation to conduct education program on restraint use by children less than 15yrs.old. Hazard warnings given to people operating m.v. with unrestrained children. Fresno County chosen for pilot survey. Effect. 9/80-1/83.
INDIANA SB88	Dept. of Highways shall develop and implement information program on use of c.r. Effective 9/1/82 to 9/1/84.
MAINE H1560	Commissioner of Public Safety shall develop/implement program to increase restraint use for children. Hazard warning given if vehicle stopped for another reason and unrestrained children are observed. Study of usage rates to be undertaken. Effect. 7/1/81 to 6/8/83.
HAWAII HB2742	$25. income tax credi for purchase of c.r. Signed by Gov. 7/27/82. Retroactive impact 1/1/82.

PENDING LEGISLATION

STATE	DESCRIPTION	STATUS
NEW JERSEY A851	All children less than 5yrs must be in c.r. when riding in m.v. in N.J. From 18mths to 5yrs, safety belt may be substituted in rear seat only. Exemption if number of children exceeds number of available belcs, all unrestrained children must be in rear seat. $10-15 fine, waived upon proof of acquisition.	Intro. by Assembly-women Garvin. Passed Assembly 47-15 on 6/15/82. In Senate Committee.
SB1322	All children less than 4yrs must be in c.r. when riding in m.v. in N.J. From 12mths-4yrs, safety belt may be substituted in rear seat only. $25-50 fine waived upon proof of acquisition.	Intro by Sen.Bassano. Will not move due to internal politics.
OHIO HB605	All children less than 4yrs or weighing less than 40lbs must be in c.r. when traveling in m.v. owned/operated by parent/l.g. or day care center. If riding in m.v. other than those listed above but driven by resident of state, less than 1yr olds must be in c.r. From 1-4yrs, safety belts may be substituted. Exemptions for taxis and life-threatening situations. $10 fine waived upon acquisition of seat.	Intro. by Rep Fisher Passed House 3/82. Passed Senate Comm. 8-1 but unable to ge floor vote until Nov
PENN. SB592	All children less than 4yrs old or 40lbs must be in c.r. when riding in m.v. equipped with safety belts and registered in state. $25 fine, waived upon proof of acquisition.	Intro. By Sen Gekas. Passed Senate 38-10 10/81. Passed House Comm.,amended on floor and sent to 2nd Comm. Poor chance.
WASH. D.C. 4-434	All children less than 6yrs old must be c.r. whe riding in m.v. registered in D.C. From 3-6yrs, safety belt may be sub-stituted. Exemption if # of children in one family exceed # of seating positions, all available belts must be used. $25 fine waivable for 1st offense only upon proof of acquisition of seat by either parent or driver.	Intro. by Councilmar Ray, 3/82. Hearing 7/15/82. Committee mark-up expected 10/6. Full vote near end of October.
MICHIGAN HB5567	Safety belt legislation-All drivers and front seat passengers must wear safety belt. Civil violation, $25 fine.	Intro. by Rep. Holl-ister 3/82. Vote no likely until 11/82.

ACTIVE CHILD RESTRAINT LOANER PROGRAMS

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CHILD RESTRAINT LAWS AND PENDING LEGISLATION