1999 HOUSE EDUCATION

HB 1323

1999 HOUSE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. 1323

House Education Committee

❑ Conference Committee

Hearing Date 1-27-99

Tape Number	Side A	Side B	Meter #
#2	x		0.1 to end
#2		x	0.1 to end
Committee Clerk Signature	Joan Dietz		

Minutes:

Those present: Chairman R. Kelsch , Vice-Chair Drovdal , Rep Brandenburg , Rep Brusegaard , Rep. Haas , Rep. Johnson , Rep. Nelson , Rep. L. Thoreson , Rep. Grumbo , Rep. Hanson , Rep. Mueller , Rep. Nowatzki , Rep. Solberg .

Chairman R. Kelsch : We will open the hearing on HB 1323 and ask the clerk to read the title.

Rep S Kelsh: Sponsor of HB 1323 introduced the bill District 11. Introduced the bill on behalf of North Dakota JayCees. School districts are left with cost of liabilities should an accident occur. Studies have shown that seat belts have reduced injuries and saved lives.

Rep. Hanson : Would there be any exceptions to wearing the seat belts?

Rep S Kelsh: No exceptions

Rep. Hanson : The school bus at the Ann Carlson School in Jamestown has wheelchairs.

Rep S Kelsh: I think I will defer that question to other people, who may have the answer.

Rep. Lundgren : May I address the question, as a paramedic, I have worked with the school and the wheel chairs are secured and the children are fastened.

Chairman R. Kelsch : On the fiscal note, it talks of the lap type seat belt costing $23.00 per seat. Why the lap belts instead of the shoulder straps?

Rep S Kelsh: May I defer that question?

Vice-Chair Drovdal : Have you been to the local school boards and requested seat belts, and then gone to all schools on a school by school basis>

Rep S Kelsh: There is a fine line to what constitutes local control and what should be set as a standard. I think this should be a standard.

Rep Brusegaard : Can you think of any other bill that we have passed that requires distribution of a certain section of the Century Code?

Rep S Kelsh: The provision to inform parents of what the rules are.

Rep Sveen: Cosponsor of the bill with the Junior Chamber of Commerce and from District 6. This bill is part of safety of the children who ride on the bus.

Chairman R. Kelsch : Anyone else who wishes to appear in support of HB 1323.

John Fischer: Jaycees of Fargo, and at this time a video was shown. Produced by CNN that was shown 4 times on the air.

Bruce Kester: North Dakota President Jaycees, conclusive of this video are comments by Barry Brooks, Minot school district, purchasing and maintaining school buses.

At this time a fifteen minute video was shown.

John Fischer: (see written attached).

Chairman R. Kelsch : John, why lap belts instead of shoulder belts?

Fischer: After many calls , we have not found a good shoulder belt. A study in Florida has not come up with one either. If you don't have a demand for seat belts, why develop amore safe design.? Another thing is the estimated cost.

Chairman R. Kelsch : The school bus driver is the only person that has the authority to make sure that everyone is strapped in. Are they going to have something up front to show that all the students are strapped in before the bus starts? Do they have to walk down the aisle to make sure the students are strapped in. What is the consciences if there is an accident and a student is not strapped in? The way the bill is laid out, you do leave up to the school district to develop a policy about seat belts and students failure to abide by that policy. What type of policy.

Fischer: A student not wearing the seat belt, would be a three day suspension, for not having a seat belt.

Nowatzki: Law requires the seat belt, the driver is employed by the school district, are the driver and school district then liable?

Fischer: We would like to amend the bill, so there is no liability for the driver and the school district if the student is not wearing a seat belt.

Chairman R. Kelsch : Would you address the panel to indict if all the students are in seat belts.

Fischer: Yes, there is a way, but will have to check on the cost.

Rep. Mueller : The study from New Jersey is dated in '89. Is there any new information or study that shows that seat belts create more of an injury problem from a rear collision? Is there new information that disputes that finding.

Fischer: In rear and front collision, there could be more more injuries with lap seat belts. Special Report 222 which was produced later than that report, injuries over all can be reduced by 20 per cent if seat belts are worn.

Rep. Nelson : In your research, how many bus accidents happen in North Dakota?

Fischer: We don't have large numbers of accidents, because of lower population, lower number of bus.

Rep. Nelson : We don't need the study, I just want some numbers.

Bruce Kester: The publication in the Minot daily are as follows: per one hundred bus vehicles 1997 were 31 reported accidents and 1996 were 28 reported accidents with 1 fatality , these figures are for North Dakota.

Fischer: A national average, we might go two to three years without a single fatality. When this happens,what you decide today will make a big difference to a parent.

Rep. Nelson : Made reference to children standing in the bus, or children being disruptive on the bus. Current law of standing on the bus, is illegal is it not?

Fischer: I believe that is correct. It is part of the bill, the legislative council, before they draw up the bill, would research the existing code, before they will have legislation drawn up.

Rep. Nelson : You are telling me it is legal to stand up on the bus?

Fischer: As far as I know this may be legal.

Rep. Nelson : Are there any schools in North Dakota, that are voluntarily providing seat belts on their buses?

Fischer: I don't know, but I believe no.

Kester: There are smaller school buses that are smaller than twenty passenger, that have seat belts.

Rep Brusegaard : Newsletter from the National School Transportation Association is dated 1976, do you have something newer?

Fischer: The date is old. That newsletter came out after NHTSA had done that, if we look at what was in a most recent letter from school transportation news, that the accident that you saw in the video, they stated as fact, that the National Transportation and Safety Board had concluded that seat belts would not have helped the fatality. In fact the Board, says that they have not concluded on this accident.

Rep. Hanson : At present time, school buses have three students per seat. Would this cut it back to two if they have seat belts?

Fischer: Not reduce elementary students, three students to a seat. High school students are larger and would only be two to a seat.

Chairman R. Kelsch : What happens when there is a fire, everyone is strapped in, how does the bus driver get every one out?

Fischer: In a study students were timed, and there was no difference between the belted students and non belted students.

Rep. Haas : It is estimated that seat belts would reduce injury by twenty per cent, with regard to school boards this bill should be amended to immunity from law suits. At what level immunity would you extend to the school board and under what circumstances?

Fischer: I need to understand the question, what do you mean level.

Rep. Haas : Would the district have total immunity? Injured student could not sue the school district period?

Fischer : For the purposed of the seat belt, my intentions would be a limited liability.

Rep. Haas : What kind of immunity or liability would you extend if your child is fastened in by a seat belt and received serious injury or was killed?

Fischer: I would believe that there isn't any immunity.

Rep. Nowatzki : Students are minor children, the burden of wearing the seat belt would be on the minor, even though there is an adult driving the bus and employeed by the district. We have to have some accountability and reasonability some place if we are going to mandate.

Bruce Kester: State President of North Dakota Jaycees. With further testimony, that will be addressed. Other questions will also be addressed.

END OF TAPE II SIDE A

BEGIN TAPE II SIDE B

VICE-CHAIR DROVDAL : We know by your testimony, that you have visited with several school districts, why don't they have seat belts in the school buses that they purchase?

Fischer: I think that would be better answered by the school districts. In my opinion, the school bus industry is against seat belts.

Vice-Chair Drovdal : IF I were selling buses, and someone asked me for seat belts, it would be another opportunity to add on more profit.

Fischer: The area of heavy lobbying doesn't come from the bus manufactures, it comes from the bus lines, that are saving money.

Bruce Kester: North Dakota State President of the Jaycees. (see written attached)

Finding qualified people to drive school buses is no easy task. You look at where our school buses travel, gravel roads that have no shoulders, the roads are sloped. Seventy per cent of the fatalities, occur that come from the side, or a roll over accident. (Enclosed is a sample seat belt use policy).

Vice-Chair Drovdal : I'm trying to understand the higher rate of accidents, is that the higher rate of individuals that are injured in the accidents.

Kester: NO, that is the number accidents that involve injuries per one hundred vehicles.

Vice-Chair Drovdal : If we would have three students injured in the accident, it would be rated 3.0.

Kester: You would have to factor in the other hundred accidents also.

Vice-Chair Drovdal : Wouldn't we expect the school bus rate per accident to be higher than an automobile, because there are more passengers.

Kester: Its normal, sure.

Vice-Chair Drovdal : IF we have an average of three people in the vehicle and an average of twenty in the bus, we are not comparing the same when we compare accident ratio.

Kester: Yes, there are more students on that one vehicle, but there are more injuries and more potential for injuries also. Not having seat belts you are going to have more injuries in accidents.

Lolanda Gorze: Jaycee member from Surrey. (see written attached, also attached copy of the article from the Minot Daily News with the numbers on bus accidents).

Vice-Chair Drovdal : Surrey has an established bus system, have you talked to the local school district and asked them about putting seat belts in?

Gorze:Our superintendent in Surrey, one of the things he talked about was cost verses safety.

Safety reason was the primary, the cost of this would run approximately one thousand dollars per school bus.

Fischer: Fargo public schools were contacted and I did not get the call back. I contacted West Fargo public schools and they weren't able to make a decision on that.

Chairman R. Kelsch : Is Fargo contracted or do they have buses at the school?

Fischer: Fargo has a bus line, and West Fargo have their own buses.

At this time written testimony was presented (Nora Job Co-Founder of People Advocating Seatbelt Safety).

Carol Holzer: Injury Prevention Program Director, ND Department of Health. (see written attached).

Rep. Mueller : If the school district purchases a used school bus, is it required by the intent of this law, that school bus would have to have safety belts on also?

Holzer: The bill would only require that new buses have the safety belts.

Marsha Lembke: Director of Drivers License & Traffic Safety Division. We stand in support of this bill.(see attached chart on North Dakota School Bus Crashes.) Looked for studies and research to share with you and background on this issue. We do not have anything more than what the Jaycees have at this point. There are on going studies going right now that have been formatted, but no results at this time.

Chairman R. Kelsch : What is the most frequent type of accident with a school bus.

Lembke: Of the accidents that are reported, twenty seven of them involve injuries to the driver and the passengers. Older studies on rear or side crashes, makes a difference as far as seat belts are concerned.

Chairman R. Kelsch : Looking at your data, the majority of the crashes, are property damage only. What are we seeing with the property damage only crashes, and what are we seeing for the injuries crashes, are they trains hitting the bus, other vehicles hitting the bus, the bus hitting something else.

Lembke: We could look into that further, I don't have that information now.

Chairman R. Kelsch : Could you give me an example of a property damage only?

Lembke: Property damage only would be if the car and bus had damage and there were no injuries to any person outside or on the bus.

Vice-Chair Drovdal : Minot Daily news article, in 1995 when this was debated, a couple of the issues came up. One, the lap seat belt are not safe, the passengers are more likely to be injured by hitting the seat in front of them if they are buckled up and the second one was about the safety of the children in case of a fire in a roll over and the children were hanging up side down. Can you comment on those two issues?

Lembke: Over all the use of seat belts, is what I can attest to, the lap belt and the shoulder belt are what can give the most protection. Normally in case of a fire, the person is most likely unconscious, if there is anyway to save them from the fire, the seat belts keep them from the other injuries.

Margaret Ricke: Nurses Association. We are in support of HB 1323.

Chairman R. Kelsch : Anyone wishing to appear in support of HB 1323? Anyone who wishes to appear neutral to the bill?

Tom Decker: Director of School District Finance and Organization of DPI. (passed a chart around for the committee to look at. A chart that outlines the specific federal safety standards

around which the school bus is built.) (also attached a fourteen page National Association of State Directors of Pupil Transportation Services). For information purposes, we transport forty-eight thousand four hundred and forty five students last year. Our inventory shows fourteen hundred and fifty three school buses currently in use. Last year we traveled in excess of twenty four million miles, transporting North Dakota students. Two states have mandated seat belts. Only New Jersey requires them to be used. There are some resent studies that indicate that in terms of disciples and management on the school bus, there are as many problems related to having seat belts as there are today without them. The panel that you talked about is a possibility but when you consider the problem of monitoring the panel, problems become rather large.What about liability? These issues need more study before we mandate that every district puts seat belts on buses. Seat belts have been available for the past fifteen years. I would ask you to consider delaying this legislation until we have the data from these federal studies.

Rep. Nelson : In the summary and conclusion of your handed out testimony, one statement says there is no statistically data to suggest that a safety problem exsists in large buses that lap belts would solve and bottom of page 2 lap belts were not a good means of providing crash protection to small children. Do you agree with this report.

Decker: This report comes from a national organization, charged with providing student safety and cost effectiveness for school transportation. They do not oppose or support the seat belt issue only provide information.

Rep. Nelson : This is recent data?

Decker: This report is dated January 12, 1999, this is an update.

Rep Brandenburg : There are some school buses that have seat belts now? School districts can buy a bus equipped with seat belts and there is nothing that says that can't do it?

Decker: The school district can buy buses with seat belts.

Rep Brandenburg : If someone went to the local school board and asked them to buy buses with seat belts, they could.

Decker: That is true.

Rep. L. Thoreson : Are buses required to be replaced every so many miles or so many years?

Decker: No.

Rep. L. Thoreson : The height of the seat, is there only a standard size?

Decker: We have adopted by rule, the National School Bus Transportation Standards. As far as we know all buses in North Dakota meet those standards. Those standards are updated every five years. Federal standards supersede those standards, so those standards apply.

Rep. Nottestad : Have there been any initiatives by local school districts , looking at seat belts and putting them in.

Decker: Not that I'm aware of. Commercial vans which are not school buses, are used to transport students. They come equipped with seat belts and must be used. It is not legal for students to stand up on a school bus.

Vice-Chair Drovdal : Local districts can decide to have belts in buses, when we pay ninety per cent reimbursement, would the cost of the lap belts be included in the reimbursement.

Decker: The cost would be considered part of the capitalization of the vehicle. They are reimbursed on a rolling eight year average of capital cost.

Fischer: Issues of behavior on the bus with belts, the belts are installed so that they cannot buckle them across the isle. The report we handed in state that behavior improves with seat belts.

Kester: Smaller passenger vehicles, there are federal regulations that require vehicles to have seat belts if less then ten thousand dollars. Those that under twenty type passenger vehicles.

End of Tape 2 side B

Begin Tape 3 side A

Kester testimony continues. Forty three accidents from NTSB that seat belts were not provided. The question as to the height of seats on school buses, we would like to make an amendment to have the twenty eight inch seat backs as opposed to the twenty four inch backs. Compartmentalization requires a twenty eight in back to reduce injuries.

Vice-Chair Drovdal : Madam Chairman had to testify for a bill and she had a number of questions for the highway patrol, so we will stand at ease for ten minutes.

Chairman R. Kelsch : We will call the meeting back to order. An ask the highway patrol officer to step forward.

Mark Bethke: I am the Safety and Education Officer of the Highway Patrol. I would welcome any questions.

Chairman R. Kelsch : How would the highway patrol enforce this piece of legislation?

Bethke: I don't see enforcement effort, because I don't see a penalty of violation of the law.

Chairman R. Kelsch : Currently, can you pull a school bus over, if you see a student standing in the bus?

Bethke: No, it is not a violation of any state law. The DPI has it in their handbook, but it is no violation of state law.

Rep. Johnson : If the bus is overloaded, forcing the students to stand, would you stop them then.

Bethke: I would either stop that bus or go to the school district and inform them of the situation.

Chairman R. Kelsch : We will close the hearing on HB 1323.

1999 HOUSE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. HB 1323-2-11-99

House Education Committee

❑ Conference Committee

Hearing Date 2-1-99

Tape Number	Side A	Side B	Meter #
Tape #3	x		41.0 to 45.4
Committee Clerk Signature	Joan Ders		

Minutes:

COMMITTEE ACTION

Chairman R. Kelsch , Vice-Chair Drovdal , Rep Brandenburg , Rep Brusegaard , REP. HAAS , Rep. Johnson , Rep. Nelson , Rep. Nottestad , Rep. L. Thoreson , Rep. Grumbo , Rep. Hanson , Rep. Mueller , Rep. Nowatzki , Rep. Solberg .

Chairman R. Kelsch : We will take up HB 1323. What are the wishes of the committee.

Rep Brusegaard : I move a NO NOT PASS.

Rep. Mueller : Second.

Chairman R. Kelsch : Discussion. I will ask the clerk to read the roll on a DO NOT PASS motion. motion passed 14 Yes 0 NO 1 Absent. Floor Assignment Rep Mueller.

FISCAL NOTE

(Return original and 14 copies)

Bill/Resolution No.: HB 1323 Amendment to:

Requested by Legislative Council Date of Request: 1-13-99

1. Please estimate the fiscal impact (in dollar amounts) of the above measure for state general or special funds, counties, cities, and school districts.

   Narrative:
   According to manufacture and bus sales experts equipping school buses with lap type seat belts will add $23.00 per seat to the cost of new buses. Schools purchased buses last year with a total of 2,939 seating capacity. At $23.00 per seat the added cost to school districts would be $67,597.00 per year.

2. **State** fiscal effect in dollar amounts:

	1997-99 Biennium		1999-2001 Biennium		2001-03 Biennium	
	General Fund	Special Fund	General Fund	Special Funds	General Fund	Special Funds
Revenues:	0		0	0	0	0
Expenditures:	0	0	0	0	0	0

3. What, if any, is the effect of this measure on the appropriation for your agency or department:
   a. For rest of 1997-99 biennium: None
   b. For the 1999-2001 biennium: None
   c. For the 2001-03 biennium: None

4. **County, City, and School District** fiscal effect in dollar amounts:

1997-99 Biennium			1999-2001 Biennium			2001-03 Biennium		
Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts
0	0	0	0	0	$135,194	0	0	$141,953

If additional space is needed, attach a supplemental sheet.

Signed 

Typed Name **Tom Decker**

Date Prepared: **1-18-99**

Department **Department of Public Instruction**

Phone Number **328-2267**

Date: 2-1-99
Roll Call Vote #: 1

1999 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1323

House Education Committee

☐ Subcommittee on _____
or
☐ Conference Committee

Legislative Council Amendment Number _____

Action Taken DO Not Pass

Motion Made By Brusegaard Seconded By Mueller

Representatives	Yes	No	Representatives	Yes	No
Rep. ReaAnn Kelsch-Chairperson	✓		Rep. Dorvan Solberg	✓	
Rep. David Drovdal-Vice Chair	✓				
Rep. Michael D. Brandenburg	✓				
Rep. Thomas T. Brusegaard	✓				
Rep. C. B. Haas	✓				
Rep. Dennis E. Johnson	✓				
Rep. Jon O. Nelson	✓				
Rep. Darrell D. Nottestad	✓				
Rep. Laurel Thoreson	✓				
Rep. Howard Grumbo	✓				
Rep. Lyle Hanson	✓				
Rep. Deb Lundgren					
Rep. Phillip Mueller	✓				
Rep. Robert E. Nowatzki	✓				

Total (Yes) 14 No Ø

Absent 1

Floor Assignment Mueller

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1323: Education Committee (Rep. R. Kelsch, Chairman) recommends **DO NOT PASS** (14 YEAS, 0 NAYS, 1 ABSENT AND NOT VOTING). HB 1323 was placed on the Eleventh order on the calendar.

1999 TESTIMONY

HB 1323

John Fischer Fargo, ND
State Governmental Affairs Program Manager
ND Jaycees

I am a parent of a boy who has had to ride a bus for over one hour and was concerned when CNN reported in its segment "Risky Rides" you have just seen that the **frequency of injuries in school bus accidents are higher than in car accidents.** They quote insurance claims from Insurance Services Offices.

James Polk a producer from CNN states that **the bus industry is the main driving force stalling** installation of seat belts on school buses specifically the bus lines providing services to school districts. They are represented by NTSA, **National School Transportation Association.** The enclosed copy of a **newsletter by the NSTA, shows clearly their motives in a statement as to why you should join their association:**

Defeat of bills before Congress that were detrimental to the industry:

1. 28 inch seat backs
2. Mandatory seat belts and seat belt anchorage
3. Increased seat spacing from 21 to 24 inches.

They also **touted saving $300 per bus** purchased by their members doing this and asked for donations to cover their $100,000 expenditure over 2 and 1/2 years for their extensive lobbying efforts. See enclosed newsletter.

UCLA conducted an extensive study of seat belts on school buses and **originally coined the term "compartmentalization"** which included using padded high backed seats of 28 inches and also concluded that seat belts helped to reduce injury. The study recommended the installation of seat belts with buses with this new design. **NHTSA, the National Highway Traffic and Safety Administration gave the industry a short time to comply with this new standard of seat belts and compartmentalization.**

NHTSA folded from bus lobby pressure and removed the standard of mandatory seat belts and even lowered the height of **seat backs to 24".** The **industry still uses the term compartmentalization on this compromised seat size.** CNN Producer, James Polk calls NHTSA a pawn of the industry.

The fact is that National Safety Council, NSC, data according to CNN shows **10,000 to 13000 injuries among about 20,000 to 26,000** accidents annually and these alarming numbers are understated. You see, NSC gets data voluntarily from the states. The **National PTA conducted a survey to determine the accuracy of the data.** Twenty six states responded of the 50 and the Dept of Motor vehicles or Transportation typically provided the information. **They found that on average every year 3000 accidents and 1000 injuries were completely missing from NSC data** . This was from 1/2 of the states that responded not counting the other 1/2 that ignored the request. See the enclosed table of state responses.

The **bus industry will say that most fatalities occur outside of the school bus** leaving school bus fatalities in the school bus a low figure and thus the school buses are safe. This is true regarding fatalities but **does not apply at all to injuries.** A **disproportionate number of injuries occur inside the school bus as 950 injuries occur outside of the school bus but 11,400 injuries occur inside the school bus a year** concluded Special Report 222 conducted by the National Research Council an agency of the National Academy of Sciences sponsored by NHTSA.

Compartmentalization works when the accidents are frontal collisions and the students face forward. Do students face forward? I have been watching in the last four months and rarely do students face forward on a school bus and on a **segment on Channel 4 evening news** in Fargo students were filmed because they had been **forced to ride standing up** on a regular basis in the beginning of the school year. How does compartmentalization work if students are standing up? **What about non collision accidents, side impacts, and rollovers like the one a few months ago in Albert Lea where their bus blew off an icy road** and 12 students went to the hospital and 2 had to stay overnight? **These make up 44% of school bus accidents according to the Transportation**

Research Board. Injuries on these accidents could be reduced by 35% according a seat belt safety study completed for New Jersey before this law was passed in their state.

In **Special Report 222**, the National Research Council concluded with a **50% usage rate, injuries and fatalities would be reduced by 20% overall.** Higher use rates means a higher percentage of reduction of injuries. A common **argument the industry uses is how are you going to get the students to wear them. A NHTSA study observed 80% usage rate among elementary students and 50% or fewer rates among high school students.** SR 222 P. 85 West Orange County, New Jersey **school board reports 95% use rate and improved student behavior.**

Driver distraction is the cause of many accidents. Research shows that a **driver can attend to 5-7 stimuli** such as **traffic signals, cars backing out of driveways, radio transmissions, intersections, vehicle engine sounds, etc.** are normal stimuli. The also have to deal with **student distractions.** Site experience of the **NHTSA investigators riding on school buses concluded that students were seated and not roaming the isles or standing and incidences of fighting and rowdy behavior were fewer.**

Texas transportation institute study found that when **19 fatalities in school bus accidents were studied that 12 would have been avoided with safety belts.**

The bus industry claims that school buses are safe and routinely will tell school officials that this is true pointing to low fatality figures and point to NHTSA indication that buses are safe. There is a **major flaw** to this. **The National Safety Council data that NHTSA uses severely under reports accidents because the information they get is voluntary.** Remember, in just 1/2 of the states they are missing 3000 complete accidents a year and we have documented this fact. If injuries can be reduced by 20% overall, then school buses are not quite safe enough.

The industry would have you believe that seat belts will harm more than they help. Why is it that while every major medical group including the American Medical Association have positions for seat belts on school buses and the ones that are saying they will hurt not help are the industry that by definition is for profit and lobbies as I have documented for issues that may be detrimental to their profit?

We are targeting new buses of 20 or more in capacity which represent 1651 buses according to the Department of Public Instruction in the 97-98 school year. **West Fargo school superintendent, Marvin Leidal, states that they replace 2 buses a year from a 32 bus fleet.** Since the additional cost of providing seat belts on school buses is $1,000 this **only costs $2,000 a year.**

Flagstaff, Arizona recently passed a law for seat belts on school buses..They just settled out of court with Jeff Dowding, the brain damaged youth and B.J. Carlson, the crippled boy for **$26 million.** $10 million came from insurance the district had and the rest from a bond issue. Interest at **5% on $16 million is $800,000 a year. Just the interest for one year alone is 12 times the amount it would cost our whole state per year for seat belts on buses.** Just the Interest alone. Was this law passed because 31 students were injured in a small community? How long will North Dakota wait? How severe of a bus accident will it take to change the Law?

We have well documented that seat belts on school buses reduce injuries and fatalities and the medical community backs us up. We also have documented how NHSTA opinions are bias for two reasons. One, they only investigate **extremely severe accidents and a disproportionate number** of injuries happen that seat belts would not have helped. And two, **NHSTA has been manipulated** by the bus industry as we have shown and the industry bragged about in their newsletter with all of their special interest money. School districts can be manipulated with extensive lobbying by the industry with arguments that frankly do not hold much water. We are concerned young people and many have children. We have looked at both sides of this issue in much detail. The issue is a matter of common sense. **We have no bias. We are just fighting for our children.**

Chapter of the
National Safety Council

NORTH DAKOTA SAFETY COUNCIL, INC.

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January 30, 1999

Representative RaeAnn Kelsch
Chairman, House Education Committee

RE: HB-1323 – Seat belts on school buses.

Dear Representative RaeAnn Kelsch:

Because of conflicting hearings, I was unable to attend the hearing on HB-1323 conducted on January 27, 1999. I request you share this information with your Committee.

The North Dakota Safety Council is dedicated to helping make North Dakota a safer and healthier place to live. As such, we are always interested in safety issues like those contained in HB-1323. However, because of the range of debate surrounding safety belts and school buses, the North Dakota Safety Council does not have a position on this bill.

During our quest for information we obtained a copy of the position of the National Safety Council regarding this issue, and I have attached the statement to this memo. Further, I visited with one of the committee members of the NSC who is involved with this issue and I learned the NSC is going to continue to hold their position of opposition to safety belts in school buses but they plan to revisit the issue shortly after the National Highway Traffic Safety Administration completes the study they currently have under way.

Should you have any questions or need any additional information, please contact me.

Sincerely,

Robert J. Graveline
Executive Director

Enc.

National Safety Council

TO: Bob Graveline NDSC
From: J. Potaczek NSC
Pg 1 of 1
701-223-0087

NATIONAL SAFETY COUNCIL POLICY
on
PROTECTING PUPIL PASSENGERS IN SCHOOL BUSES

The National Safety Council supports methods and procedures that effectively provide safe transportation of pupils aboard school buses. The Council believes that until further research and testing demonstrate that pupils will be safer by the installation of seat belts in school buses, passive protection provided by compartmentalization, as required by the current (1977) federal standard on school bus seating and crash protection, protects seated pupil passengers in school buses with gross vehicle weight ratings (GVWR) greater than 10,000 pounds. (Compartmentalization involves protecting each passenger by the seat, the seat back, and the back of the seat or restraining barrier immediately in front of it.) The Council also recommends additional research regarding pupil passenger safety in and around school buses, especially as related to seat belts.

Approved by the Board Governmental Relations Committee, April 17, 1986
Approved by the Board of Directors, April 17, 1986

Supersedes policy approved by the
Motor Transportation Division, May 2, 1984
Executive Committee, Board of Directors, June 28, 1984
Board of Directors, October 16, 1984

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FACT SHEET

School Buses and Seat Belts

[1] What evidence is there that school bus injuries are on the rise?

The National Safety Council, a non-profit organization founded in 1913, publishes an annual report, "Accident Facts," on various injury statistics, including motor vehicle accidents. Included is an annual table on school bus accidents.

The Safety Council has not made a year-by-year comparison like the one undertaken by CNN. Using the published data, CNN found a 94 percent increase in injuries to students riding school buses over a 12-year period, from '85 thru the '95-'96 school year, the latest on record.

[2] How does the National Safety Council gather its data?

In most states, local school districts report school bus accidents and injuries to the state level. The Safety Council says it gets its data from annual reports by the various state directors of pupil transportation.

For '96, the Safety Council received reports from 33 of the 50 states, listing 8,099 pupil injuries. Adjusting that data from two-thirds of the states, the Council estimated 13,000 pupil injuries for the nation -- the worst year yet.

[3] Why is this data more reliable than the National Highway Traffic Safety Administration (NHTSA), which does not show an injury increase?

For injuries, NHTSA does a "random sampling" of police accident reports at 60 locations around the country. It calls its method GES -- General Estimates System. It checks thousands of accidents, but most involve automobiles. Probably fewer than 100 involve school buses.

With such a small sample, a ranking NHTSA official said its estimates are done on a "blended basis" combining data from several years, "because if you take it in any particular year, the statistical variations are such that you can't really, with enormous confidence, say this is really what it looks like." In other words, the numbers go up and down so much from year to year that NHTSA levels out its estimates.

In contrast, the Safety Council, with a much larger data base, shows only minor fluctuations and, for the most part, a steady increase in injuries year after year.

[4] Both NHTSA and the Safety Council say the school bus is the safest form of transportation on the road today. Is it?

In terms of deaths, yes. There were 16 pupils killed on school buses in '95-'96, out of 24.5 million students riding buses daily, over a distance of 5 billion miles during the school year.

School buses are built to take the punishment in a collision. They are bigger and stronger than automobiles, and usually the other motorist comes out second best in a crash. Rarely is the body of the bus pierced in a collision.

Yet injuries still occur when crash forces propel students around inside a bus, and the increase in pupil injuries suggests there is a safety question to be addressed here.

[5] NHTSA says most pupil deaths occur outside the bus, when students are run over on the roadway. That should be the highest safety priority, shouldn't it?

It is. Three times as many pupils are killed outside the bus as are on the inside, by crashes. Usually the deaths happen as the youngest students get off the bus, going home. Two-thirds of the time, the child is run over by his or her own bus driver.

In the last decade, safety officials have attacked this problem with flashing "stop arms" to warn oncoming traffic, with crossing barriers in front of the bus for better driver visibility, with better mirrors and with better driving training.

The question is: in addressing this problem, is that sufficient reason not to address any other problem?

[6] How do we know the increase in injuries is not mainly an increase in pedestrian accidents, rather than inside the bus?

The National Safety Council reported only 320 pedestrian and cyclist accidents involving school buses in '96, out of a national total of 30,800 school bus accidents.

The vast majority, 27,900 accidents, involved a collision with another vehicle or with a fixed object, such as running into something off the roadway. Only 600 accidents were classified as non-collision.

Thus it stands to reason, if most accidents by far came in collisions, so did the injuries.

[7] Does the data show anything about the severity of injuries?

No. Most injuries will be minor, far fewer will be serious. None of the data systems is detailed enough to quantify the severity. It is a question that presumably would be addressed if federal regulators do decide the injury increase merits their attention.

[8] NHTSA says "compartmentalization" keeps children safe inside a school bus. What is that? How does it work?

"Compartmentalization" is a seating design concept meant to keep children from being thrown around inside the bus.

The seat back in front of a child is padded slightly (--an inch of the same kind of foam rubber found in a bedroom pillow). More importantly, the seat back is designed to bend in a crash to help cushion the student.

This works very well in a straight-line crash, when a bus has a head-on collision or is hit from the rear. But it does little to protect a child from lateral or vertical crash forces.

In a broadside collision, a pupil can be thrown from side to side. In the worst accidents, when a bus rolls over, a NHTSA study in 1980 found the seat-back concept has "only limited effectiveness."

The major school bus crash study, done at UCLA 31 years ago, recommended "compartmentalization" as the top safety priority. It also called for seat belts. NHTSA abandoned belts under industry pressure.

[9] NHTSA officials say every major study since then has rejected seat belts. Is that true?

Not entirely. The study done for Congress under the aegis of the National Academy of Sciences in '89 said seat belts "may reduce the likelihood of death or injury to passengers involved in school bus crashes by up to 20 percent," if just half the students wear the belts.

But the Academy's report, written by one of its research units, the Transportation Research Board, said available money would be better spent at that time in attacking the problem of the pedestrian deaths. In those terms, it said seat belts were "not cost-effective."

[10] Is there a major cost question?

Yes and no. The cost would be about the same as the air-conditioning that is now standard on many new buses. Even so, for up to 400,000 buses, the total could come to $600 million or more.

But seat belts would be phased in as new buses are bought, and that's usually over a 12- or 15-year cycle. Spreading the cost among 40 million school children would reduce it to less than a nickel a week.

[11] Has the government ever recommended seat belts?

NHTSA did in '75, at the same time it called for the padded flexible seat backs. The corporate school bus lobby, National School Transportation Assn., took credit in a newsletter for an expensive lobbying campaign that, it said, persuaded NHTSA to back down.

[12] Are seat belts in use on school buses anywhere in the U.S.?

Two states, New York and New Jersey, require seat belts on all newly purchased school buses. So do a few scattered local school districts around the country.

[13] What has the NTSB -- the National Transportation Safety Board -- found in its investigations of school bus accidents?

In an extensive accident study completed in '87, the NTSB found the safety benefits of seat belts "have not been proven" on larger school buses. The board said it "does not recommend" their purchase.

Since then, in studying a '93 collision in Oklahoma involving a smaller school bus van, for which belts are required because the vans are not built as strongly as larger buses, the NTSB said three of the four students killed might have had a better chance of surviving had they been wearing their belts. Only one student did have his belt on; he was the least hurt, with only minor injuries.

This report said the NTSB will investigate how well seat belts do work in a major crash when a larger bus does have belts, presumably in New Jersey or New York. However, such a crash has yet to happen.

[14] Are students more vulnerable when a bus is hit from the side or rolls over?

A study by the New Jersey Institute of Technology in '89 calculated 70% of all deaths and 64% of the serious injuries happen in side-impact crashes or rollovers. This may be because the seat-back concept offers little protection to a student exposed to lateral or vertical crash forces.

It should be noted, in contrast, the NTSB study found deaths, even in rollovers, tend to occur at the point of impact in a collision. Yet, in that study, there was evidence of serious injury to unrestrained students hurled about on the opposite side of the aisle, away from the impact.

Moreover, students have been hurt seriously, even paralyzed, when a bus overturns due to a loss of driver control, without a collision.

[15] Can seat belts alone cause injuries in an accident?

Yes, but usually not. The '89 National Academy of Sciences report said seat belts on school buses, when worn properly, "are not inherently harmful."

Tests in Canada in '85 said seat belts on buses might result in severe head injuries. The '89 Academy report did look at the Canadian study, and criticism of it, before reaching its "not harmful" finding.

Seat belts can result in abdominal injuries, but doctors say those are preferable to worse injuries without belts. In fact, the '89 report predicted fewer belt injuries on buses than in automobiles because of the firmer seat design on school buses.

[16] Who favors seat belts on school buses?

The American Medical Assn., American Academy of Pediatrics, American College of Emergency Physicians, American Society for Adolescent Medicine, American College of Preventive Medicine, and Physicians for Automotive Safety, among others.

[17] When is the last time real-life crash tests were done on school bus safety?

The UCLA tests in 1967 were the first and last federally funded crash tests. Those tests measured head-on, rear-end and broadside collisions. The only real-life rollover crash test was done by a bus company in Arkansas in 1964.

Sen. Frank Lautenberg, D-New Jersey, is sponsoring legislation to fund and require new tests of seat belts on school buses. But in the face of resistance from federal regulators as well as the school bus industry, this is likely to go nowhere, absent a public outcry.

[18] How large a staff does NHTSA have assigned to school bus safety?

One man.

BLE A

CHART SHOWING DISCREPANCIES BETWEEN STATE SELF REPORTING AND NATIONAL SAFETY COUNCIL STATISTICS

ACCIDENTS

	1991	+	-	1992	+	-	1993	+	-	1994	+	-	1995	+	-
AZ															
AK	2	2					-90		90	43	43		-4		4
CA				0	0		0	0		0	0		0	0	
CT	0	0		-12		12	0	0		-1		1			
DE	-2		2	-5		5	13	13		-4		4	4	4	
FL	-526		526	-320		320	-502		502	-741		741	-514		514
GA	-14		14	126	126		179	179		579	579		697	697	
ID	-2		2	-23		23	-15		15	21	21		21	21	
IL				-12		12							159	159	
KY	67	67		82	82		-88		88	-100		100	-15		15
MN							0	0		0	0		59	59	
MO	992	992		885	885		1226	1226		1306	306		1386	1386	
MT	-9		9	35	35		22	22		-56		56	24	24	
NE	0	0		-7		7	-15		15	-34		34	-32		32
NV							-155		155						
NH				-6		6	0	0		0	0		0	0	
NC	0	0		0	0		0	0		0	0		0	0	
OH	702	702					793	793		1179	1179				
OK	0	0					75	75		65	65		87	87	
SD	-24		24	-46		46	-31		31	-58		58	-34		34
TN	-756		756	-589		589	-708		708	-671		671			
TX							0	0		0	0				
UT	41	41		31	31		13	13							
VT															
VA	-417		417	-331		331	-381		381	-327		327	-361		361
WI	4	4											0	0	
UMN SUM	58	1808	1750	-192	1159	1351	336	2321	1985	1201	2193	1992	1477	2437	960
AL DISCREPANCY	3558			2510			4306			4185			3397		
ATES REPORTING	18	10	8	17	7	10	22	13	9	20	11	9	18	12	6

INJURIES

	1991	+	-	1992	+	-	1993	+	-	1994	+	-	1995	+	-
AZ	-1		1												
AK	-3		3	91	91		-5		5	-15		15	35	35	
CA				0	0		0	0		0	0		0	0	
CT															
DE				37	37		-66		66	68	68		-30		30
FL	295	295		209	209		249	249		536	536		481	481	
GA															
ID	16	16		-38		38	-32		32	35	35		32	32	
IL				228	228								-9		9
KY				-44		44	66	66		-45		45	10	10	
MN							-1		1	0	0		14	14	
MO	108	108		-68		68	107	107		-21		21	35	35	
MT							16	16		-12		12	20	20	
NE	2	2		-12		12	5	5		-3		3	6	6	
NV							-64		64						
NH															
NC	254	254		0	0		0	0		0	0		0	0	
OH	129	129		596	596		57	57		156	156				
OK															
SD															
TN	92	92		58		58	-15		15	144	144				
TX							0	0		0	0				
UT															
VT															
VA	133	133		141	141		317	317		282	282		313	313	
WI															
	1025	1029	4	1198	1302	220	634	817	183	1220	1316	96	907	946	39
	1033			1522			1000			1412			985		
	10	8	2	13	8	5	16	10	6	16	11	5	13	11	2

RAGE TOTAL DISCREPANCY FOR ACCIDENTS: 3591.2, INJURIES: 1190.4. AVERAGES, "+" & "-", FOR TOTAL ACCIDENTS: "+" 1983.6; "-"1607.6; TOTAL INJURIES: "+"1082; "-"108.4

epancies were arrived at by subtracting NSC figures from self reported state figures. A positive value means the state had a higher number than the NSC.
A negative number means the NSC had a higher number than the state.

R COLUMN SHOWS DISCREPANCY "+" OR "-" YEAR COLUMN TOTAL SHOWS DISCREPANCY BETWEEN STATE TOTALS AND NSC TOTALS FOR REPORTING STATES FOR YEAR.

"+" COLUMN SHOWS THE NUMBER OF ACCIDENTS OR INJURIES THE STATE'S SELF REPORTING EXCEEDS THE NSC STATISTICS BY
"-" COLUMN SHOWS THE NUMBER OF ACCIDENTS OR INJURIES THE NSC STATISTICS EXCEED THE STATE'S SELF REPORTING.

ROW: "TOTAL DISCREPANCY" SHOWS THE SUM OF THE "+" AND "-" COLUMNS FOR EACH YEAR. IT REPRESENTS THE ABSOLUTE VALUE OF THE DISCREPANCIES.

National School Transportation Associa
P. O. BOX 324 / FAIRFAX, VIRGINIA 22030 / (703) 323 59
WILLIAM V. REYNOLDS
Executive Director

D-57

WASHINGTON D.C. FEBRUARY 1976

NO ANCHORAGES/IN DOCKET 73

NHTSA ISSUES SCHOOL BUS STANDARDS FOR SCHOOLBUSES IN 8 AREAS

January 27 and 28, the Federal Department of Transportation's NHTSA issued the final standards for school buses as mandated by Congress. This gives the manufacturers 9-months lead time to have products meeting these performance standards on the market by October 27, 1976, in accordance with Public Law 93-492.

The standards deal with Emergency Exits, Joint Strength, Rollover (roof) Brakes and Seating and Crash Protection. The standards have all been modified somewhat and are more responsive to the real world needs of school bus safety, and NSTA has requested the manufacturers to respond to the standards and to apprise of remaining problem areas. Meanwhile the NSTA is enjoying a major victory due to the elimination of mandatory seat belt anchorages from Docket 73-3 /5.

CONTROVERSIAL HIGH BACKED SEATS AND SEAT BELT ANCHORAGES DELETED

Perhaps the most controversial standard ever to confront the pupil transportation industry was Docket 73-3 (School Bus Passenger Seating and Crash Protection). This docket originally contained 28" high backed seats and seat belts. The fastening of the belts was to have been attached to a signal device in the driver's department which buzzed and lighted up if the belts were unbuckled. Fortunately, notice number three eliminated the signal devise and seat belts, but mandated an anchorage system for the belts. Notice four eliminated the high-backed seats after sled tests were conducted which proved that 24" seat back height provided adequate containerization of the passengers. This was due to the intense pressures applied by the NSTA Board of Directors, working in concert with public school officials. However, it still contained the controversial mandatory anchorages.

Support to remove the anchorages came from the total pupil transportation industry i.e. Body Manufacturers, State Directors of Pupil Transportation Supervisors, School Administrators, Congress, parents, drivers, and especially the members of NSTA who spent many dollars, and hours to provide the necessary data from the private sector to accomplish the removal of the anchorages as well as pressing for the lowering of the seat back height.

LACK OF SUBSTANTIVE DATA BY NHTSA

Because NHTSA failed to conduct data collection, performance tests, and in depth comprehensive cost benefit analysis, the members of NSTA were able to force them to back off the anchorages at this time.

The California Highway Patrol commissioned a contract with the Southwest Research Institute to research the "Feasibility of Seat Belts in Buses, New and Old" which strongly substantiated the stand taken by NSTA in that seat belts as now known won't contribute significantly to improved safety of school bus passengers transported to and from school. Interviews with drivers & passengers

The leading seat belt proponents failed to provide adequate data to discredit the school bus safety record and prove that seat belts would in any way help improve it.

GRATITUDE DUE TO MANY

There isn't enough room to print the names of each and every one who contributed to the success of the anchorage removal; however, NSTA wishes to say "THANKS" to all of you for your HELP, LETTERS, TELEGRAMS, TRIPS TO WASHINGTON, again, and again, and again!

This effort will save every purchaser of school buses over $300 per bus after October 27th, 1976 and each succeeding year. NSTA and its Board Members spent well over $100,000 over the two and one-half year period in travel, office and personnel expenses to reach this happy conclusion.

If you feel as pleased as we do, NSTA could use some financial assistance to pay the numerous obligations incurred for Docket 73-3/5. Your contributions will be gratefully accepted!

Why Should You Belong?

Your business is stronger today because of NSTA's past an effort to secure for you these advantages:

- **Passage of positive federal legislation that is beneficial to you and the industry:**
- **Driver training funds.**
- **St Germain amendment to the Urban Mass Transportation Act, which protects the private school bus contractor from federally subsidized transit authorities' encroachment in pupil transportation.**
- **National School Bus Safety Week.**
- **Federal excise tax exemptions on school buses, tires, tubes, fuels, and parts and accessories.**
- **Retention of contractors' exemption from the recent 5¢ per gallon excise tax increase.**

Defeat of bills before Congress that were detrimental to the industry:

- **28-inch seat backs**
- **Mandatory seat belts and seat belt anchorages**
- **Roof hatches**

One hundred percent of fuel allocation during past energy crisis.

Increased seat spacing from 21 to 24 inches.

North Dakota Jaycees

P.O. Box 1035

Bismarck, ND 58202-1035

Phone: 1-877-588-BAJC Website: http://www.geocities.com/heartland/prairie/3768

Testimony in support of HB 1323
Bruce Kester, State President
North Dakota Junior Chamber

Madam Chairman, and members of the Education Committee, my name is Bruce Kester, I am currently serving as State President of North Dakota Junior Chamber and also father of Karalyn, Caleb and Kathryn. I testify today in favor of this bill as the voice of the North Dakota Jaycees representing chapters in 43 chapters in communities around our state. I will briefly address some of the key concerns surrounding this issue:

*statistics show a 2 fold increase of bus accidents over the past 12 years (26,000 / year). **Source: 8/98 National Safety Counsel .**

*a review of Insurance claims from 1996 indicate that school buses have a higher rate accidents that involve injuries 1.75 / 100 vehicles compared to 1.39 / 100 passenger vehicles. **Source: Insurances Services Offices**

*The increase in the numbers of accidents can be attributed to "driver error" and increases in total numbers of vehicle miles traveled. When you look the people hired to drive these buses, it is more and more common that these people work numerous jobs with long schedules in their daily routine. They often start routes early in the morning, commute to a day job, and then commute back to complete the after school routes. Others driving bus routes include an increasing number of retired or semi retired persons, one Minot area school administrator, from the Nedrose School reported 60 % of their drivers were retired or semi retired persons. In speaking with school personnel and school boards that do the hiring, finding qualified, available people to drive buses is no easy task. There are consistent reports of the difficultly of finding substitute drivers, in my home district, Untied # 7, this is a on going challenge on a weekly basis. They have 2 substitute that are not readily available.

*I have held a CDL- Class 1 Drivers License (class A prior to 1994) since aprx. 1981. I haven driven on virtually every surface type and in as many road conditions you can imagine. To make a point to address someone who will make the statement, " We live in North Dakota and those accidents don't happen here". From my experience in driving a on a icy road, I have found that a icy gravel road is worse to drive on when compared to an icy highway. The reason I mention this is because in our rural areas most bus routes travel these surface types. The design of this road type features a crown at the center that slopes from that center point. This coupled with the fact that these township and county roads have steep ditches at the edges with little or no shoulder. These buses with the long wheel bases, are very unpredictable with a driver's correction reaction regardless of their years of experiences. The potential for rollover type of accidents are very real here in our state.

North Dakota Jaycees

P.O. Box 1035

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*Do seat belts save lives? I had the opportunity this past December at the ND League of Cities luncheon, to ask Marshall Moore, Director of NDDOT, his opinion on this issue. He cited the following statistics from the **1997 Fatality Analyst Reporting System and 1997 Vehicle Crash Facts**. He stated, **"that of the 105 fatalities in 85 auto accidents in North Dakota, only 14 of these fatalities were wearing seat belts". He went on to say, "I feel that seat belts in any vehicle will prevent injuries and save lives".**

*To address the concerns of usage rate, usage policy and liability.
I feel very confident that the usage rate among the young elementary age students in North Dakota would be very high without a great deal of continuous supervisory, educational efforts and positive reinforcement. This as the result of our young people have grown accustom to this in our person automobiles and habits.

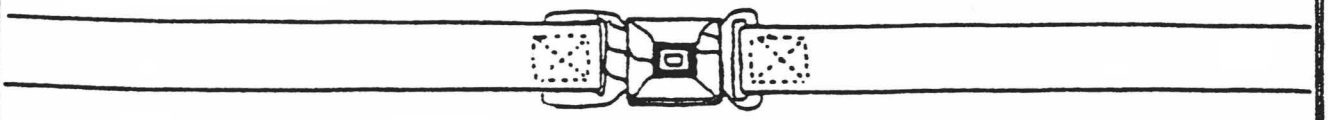
*Usage rate for elementary age students in both New York and New Jersey have been observed 80 to 100 percent. Usage rate among the High School age students in the same New Jersey study observed a 50 % usage rate. 75 % use rate can be maintained after years of implementation concluded the **School bus Safety Study conducted by the New Jersey Institute of Technology, December, 1989.**

*Giving districts the authority to have Usage Policies similar to that included in the New York Project information (see attached). We get back to the basics of respect for rules on school property. If a student choses not to comply and they are asked to get off the bus, their alternative means is to possibly ride or drive their in a family vehicle were they are required by law to BUCKLE UP! **References sources: Project Administered by Madison-Oneida BOCES in New York and National Highway Traffic Safety Administration study in New Jersey.**

In closing, on behalf of the North Dakota Junior Chamber, our voice is loud, and it is clear, and it echoes in communities all around our state. And it is saying that your decision to move this proposal to the floor with a "do pass recommendation", is a starting point for the prevention of future injuries and fatalities from accidents that will happen. I realize that my 4 year old daughter, Kathryn, may not ride on a school in our home district possibly until she is in Junior High. But we have to start now!

Sincerely,

Bruce Kester
65th President North Dakota Jaycees



Mandated Seat Belt Use Policy

The _____ school district believes that seat belts on school buses provide an important safety benefit to student passengers. Students will receive school bus seat belt use training three times a year during school bus safety drills.

All those riding buses equipped with seat belts, including but not limited to bus drivers, students, teachers, and chaperones, shall wear their seat belts at all times except when boarding or exiting the bus. School bus monitors shall also wear seat belts when they do not need to be out of their seats for student management. At no time shall seat belts be released before the bus has come to a complete stop. Failure to comply with this seat belt use policy shall result in student or employee disciplinary action. Volunteers riding buses who do not comply will lose their privileges of riding district vehicles.

TESTIMONY IN SUPPORT OF HB 1323
by LOLANDA GORZE

Madam Chairman and members of the Education committee, my name is Lolanda Gorze. I would like to introduce myself 1st as a Mother, 2nd as a Taxpayer and lifetime resident of North Dakota, 3rd as Jaycee Member and 4th as a Council Member for the past 5 years in Surrey.

I will explain to you why, with the above 4 roles I partake, I strongly endorse safety belts on school buses. Especially, for the children of North Dakota.

As mother of two, young children, Alex and Nicholas, Safety is a primary concern in all aspects of their lives. We live in a rural community where our town is fortunate enough to provide in town bus service before and after school.

I can place my 5 year old on the bus in the morning and waive good bye to him knowing he will probably be O.K. and return safely to me. However, the more I learned about Safety belts & School buses, the more I realize how desperately they are needed.

I would never compromise the safety of my children in a motor vehicle, why should I on a public school bus? In my opinion, cost is not a major factor here, SAFETY is the primary concern.

As a ND taxpayer I understand cost must be addressed. However I still feel, Safety is still the primary focus. As stated by my colleagues, the cost is minimal when compared to the lifetime usage per bus. This factor cannot be ignored.

Also as a taxpayer, I am very concerned regarding the liability involved in an accident with a death or injury of a young life. As I shared this issue with numerous civic groups & individuals, the main concern or question to come up was how to enforce the use of the sa safety belts. Make this my problem, the problem of the parents. Give the power to the bus driver to expel any student from the bus who does not comply.

Our young children are programmed to buckle automatically when seated in a vehicle and the sooner we enforce the safety belt issue on school buses the stronger each of their commitments will be to themselves to continue this practice throughout their lives.

As a Surrey Jaycee member I greatly appreciate the support and initiative this organization has provided in supporting House Bill 1323. The Jaycees are a strong, growing organization of voting taxpayers in this state.

As a Council Member of Surrey for the past 5 years I understand some of the feelings you may have regarding this bill. Cost vs. Safety. However I urge you to put SAFETY **BEFORE** COST and realize the cost is minimal when compared to the loss of one precious life, which a safety belt could have saved.

Even our Federal Government understands the importance of safety belts on school buses. My son Alex was fortunate enough to be involved in the HeadStart program in Minot this past year. Each morning and evening in entered a HeadStart bus and safely belted for the entire ride. How ironic on his first day of public school bus riding, he excitedly told me how LUCKY he was because he DID NOT have to wear a seat belt on the bus. Please help me change this little boys luck and many more children in the state of ND.

In conclusion:

As a ND Jaycee member, I thank you for listening to me.

As a Taxpayer & Council Member, I strongly encourage you to support House Bill 1323.

And as a Mother, I strongly URGE you to cast your vote in favor of safety of our children on School buses.

Together we can better protect our children, the future of our state.

Thank you.

Yolanda Monge

Local: Crosby firm promotes 'legume logic' / **B**

Sports: Michael Jordan to retire / **C1**

GOOD MORNING

Minot Daily News

Vol. 83 No. 45 | WEDNESDAY, JANUARY 13, 1999 | Minot, North Dakota 50 cents

School bus safety: To buckle or not to buckle

By JILL SCHRAMM
Staff Writer

Some parents would like their children to be able to buckle up on the school bus.

The North Dakota Jaycees are backing a bill that would require all new school buses to come equipped with seat belts. Rep. Scot Kelsh, D-Fargo, introduced House Bill 1323 for the Jaycees Monday. Rep. Gerald Sveen, R-Bottineau, is a co-sponsor.

"We have young families, and in my opinion, it's a safety issue," said Bruce Kester, Burlington, who will be installed as the new state Jaycees president this weekend in Minot. The Jaycees is a civic organization for people ages 21 to 39.

Statistics from the National Safety Council indicate that 13,000 injuries occur annually in school bus accidents. The number of accidents with injuries have almost doubled in the past 12 years.

See BUSES — Page A4

North Dakota school bus accidents:

1997:
Crashes: 31
Fatalities: 0
Injuries: 12

1996:
Crashes: 28
Fatalities: 1
Injuries: 10

Source: N.D. Department of Transportation

Buses

Continued from Page A1

New York and New Jersey are the only states that require seat belts in school buses. The North Dakota Legislature rejected a seat-belt bill in 1995.

Kester said the cost of putting seat belts in buses is estimated at $1,000 for an average bus. A bus company spokesman listed the cost at about $15 per passenger.

The proposed law would apply only to new buses. How long schools run buses before replacing them can vary from 10 to 25 years.

Bob Briggs, superintendent at Sawyer and Surrey, said his districts buy only used buses, but eventually, the cost of used buses would go up because of seat belts on them.

"Are we going to talk about safety of children or are we going to talk about costs?," he said. "If you save one life, it's worth it."

But he added for school boards, "That's hard to look at when you are paying the initial cost and you are trying to balance the budget."

Seat-belt supporters believe the cost is affordable.

"Considering what a liability claim might be if someone is really severely injured or killed, $1,000 sounds pretty negligible," said Margaret Riecke, representing the North Dakota Nurses Association. "We just feel that it's a necessary thing. We put our most precious things in those buses."

Kevin Eggermont of Dietrich & Sons, a Valley City bus company, said studies show that lap-only belts in school buses are not safe. Passengers are more likely to be injured by hitting the seat in front if they're buckled up, he said.

He also questioned the safety of lap belts in a bus fire, especially if the bus rolls and children are hanging upside down.

The liability on the driver if a passenger unbuckles and is injured in an accident is another concern because drivers can't fully monitor seat belt use, Eggermont said.

"The driver can't go up and down the aisle like stewardesses," he said.

The National Highway Traffic Safety Administration has said that seat belts in buses aren't necessary.

Carol Holzer, director of the injury prevention program in the State Health Department, said the compartment concept — the design of the the space between seats — is considered safe in frontal crashes. But the concern is about safety in rollovers, she said.

Holzer added that putting seat belts on buses would send a more consistent message to children about the importance of buckling up.

Letter From:
Nora Job
Co-Founder of P.A.S.S. Legislation, People Advocating Seatbelt Safety.
PO Box 574
Monticello MN 55362
(612) 878-1558

I am a parent of a child surviving a fatal multiple impact school bus crash. Based on the experience and evidence from research, P.A.S.S. Legislation, People Advocating Seatbelt Safety, evolved to create an awareness of safety inside the school bus.

On April 10, 1997 near Monticello MN, due to health impairments of a driver of a gravel truck, he can not stop at a controlled intersection. A school bus carrying thirteen elementary aged students is approaching the same intersection. The gravel truck and school bus collide. The initial impact endured by the passengers on the school bus was a head on collision, then the front corner panel of the gravel trailer crashes into the mid-section on the side of the school bus. The children are violently thrown to the opposite side of the bus, slamming into the interior walls, windows, other students and parts of the seats. Then the gravel trailer snaps back like the end of a whip smashing into the rear side panel of the school bus. This impact caused the children to be violently thrown back across the interior of the school bus smashing into the opposite side of the bus. Finally the school bus descends down an embankment, running over the front wheel axle, (sheared off during the crash), jolting the children upward toward the ceiling. The bus finally rests in a grassy area cornering the intersection. The bodies of the children finally rest some in the stairwell, some under the seats and some on top of each other. Most of the children are unconscious and none of the children are in their original seats.

The drivers seat was equipped with a lap/shoulder seat belt. At the moment of impact, the bus driver was wearing the lap belt portion of the lap/shoulder belt the shoulder strap was placed behind her. The driver of the school bus was located in the center of the impact zone restrained only by a lap belt. The only physical injury the driver of the school bus sustained from the impact was a broken arm.

Seat belts, for occupant use, were not installed on this school bus. Compartmentalization failed to protect and restrain these children. Three children died: Kristine Burzinski, Andrew Heberling and Christopher Korblick, all classmates, all in the 4th grade. Three children sustained critical injuries. Four children suffered serious injuries; three other children received minor injuries.

The National Transportation Safety Board flew to Monticello to reenact the collision and investigate the crash. During this time Richard Downs, an investigator of the NTSB, met with family members of children involved in the crash. He stated that the crash forces in the rear of the school bus were not survivable, that during the crash the children were like popcorn seeds in a popcorn popper and if lap belts had been used they would have cut the children in half. Well, I must confess I was very glad my little girl was not wearing a lap belt. However, my child was seated in the rear of the bus, on the same side of the bus as the three fatalities and across the aisle from two of the critically injured children. My little girl sustained a broken humorous, fractured pelvic, severe bruising, and required nerve repair to one tooth. In a private discussion with Mr. Downs, I questioned the survivability of my child due to his statements. I was informed that my daughter escaped death and critical injury because she apparently fell to the floor during the first impact and was retained under the seats. I left the meeting with this thought, if all the children were thrown to the floor, retained under the seats, would they also have escaped death and critical

injuries? If they had been wearing a lap belt, restrained to their seat, wouldn't they also have escaped fatal and critical injuries?

As I write this letter the conclusions of the crash have not been completed, based on the desire of the NTSB to further their investigation of multiple impacts, school buses and tractor-trailer crashes. The Monticello school bus crash and other similar crashes, which have occurred since April 10, 1997, are combined in a "Crashworthiness Study". This study should be completed by this summer.

Those opposing seat belt installation on large school buses state lap belts will cause abdominal injuries to the occupant during a crash. There is no documentation of a lap belt installed on a school bus that supports these fears. Evidence of lap belts providing effective protection to the occupant of a school bus is evident in real-world data. Since 1977, all Type A, (small buses under 10,000 lbs.), are required to have lap belts installed. Lap belts Installed on Type A school buses were deemed necessary because they are smaller and experience greater crash pulses than the larger type school buses. Since 1987 New York has enacted laws mandating lap belt installation on all new school buses and in 1992 New Jersey required the installation of lap belts on all new school buses. Europe and Australia install lap belts and lap/shoulder belts on their motor coaches used as school buses. Additionally there are over 200 independent School Districts across the United States mandating lap belts on all school buses. After 22 years of experience with lap belts installed on all sizes of school buses, retaining all sizes of children, there should be ample documentation of lap belts causing internal or abdominal injuries. The same argument can be made for head and neck injury. If the jackknifing of the passenger by the belt were going to cause serious injuries, we would have seen those injuries in small buses where the crash pulses are greater.

I wish my little girl had not been involved in this school bus crash. The physical torment was awful, but the memories my child will behold her entire lifetime have altered her childhood. When she regained consciousness, she remembers her best friend, Kristine, lying atop of her. Kristine's skull was crushed and my child was drenched in her blood. She remembers the paramedics trying to revive Kristine, the blood smeared on the seats around her, the glass, and the whimpers of other children, the odor and the fear. I wish I had not learned that a $24.00 lap belt may have saved precious lives and reduced injuries sustained to the children riding this school bus. Finally, I wish I was not involved, I am, because of what I have learned.

If the life of one child is saved by a seat belt, or a minor, serious or critical injury prevented, the cost has certainly been justified.

I believe each of you have the foresight to ensure that the safest mode of transportation is provided for all children riding a school bus. Installing seat belts on all new school buses today ensures that tomorrow's child will enjoy safer school bus transportation.

Respectfully,

Nora Job
Co-Founder of P.A.S.S. Legislation
People Advocating Seatbelt Safety
www.sihope.com/~kjob/pass/

Parents rush to accident scene, hospital
January 26, 1999

By ADAM CHRZAN
Press Journal Staff Writer
Vero Beach Florida

Randy Shepherd cringed when he heard the call crackle over his patrol car
radio.

The Indian River County sheriff's deputy knew the odds were his daughter was
on the school bus that had just crashed Monday afternoon on 66th Avenue.

He sped south from Vero Lake Estates and found his daughter cut and bruised,
but alive at the scene.

She had cuts to her head and her chest and neck were sore, Shepherd said of
his 8-year-old daughter, Sarah. It's really shaken her up.

Shepherd's daughter was one of 16 students on an Indian River County school
bus that crashed into a tractor-trailer at 45th Street at 3:38 p.m.

One child died and three others with serious injuries were airlifted to hospitals in Orlando and West Palm Beach.

Sarah, a third grader at Osceola Magnet School, was treated and released
from Indian River Memorial Hospital, where many of the parents showed up
after being told of the crash.

Ken Douds was called by his wife at his job in Palm Bay.

You can imagine, he said of the long drive south after hearing the news.

His son, 5-year-old Josh, and his daughter, Kirsten, 8, suffered minor injuries in the crash.

All they remember is the bus flipped over, Douds, a Sebastian resident, said.

Shepherd said his daughter told him she saw one classmate asleep, although
she did not identify the child.

Josh, who had bruises on his right thigh and around one eye, was treated at
the hospital and released. Kirsten was being held overnight for deep cuts to

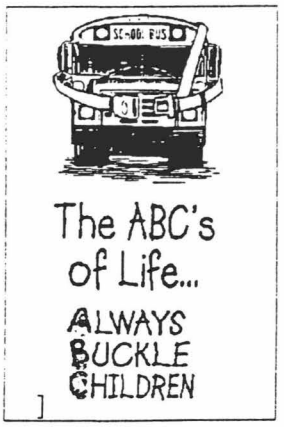
her arm and head, Douds said.

Douds said his son was asleep when the crash happened and had to be awakened
by a schoolmate. Josh, who was splattered with diesel fuel, remembered nothing of the wreck other than being cut out of the bus by firefighters.

Sarah told Shepherd she saw classmates asleep after the crash, but did not
identify anyone.

Shepherd said his daughter also slept through the crash.

The first time all year she slept on the bus, he added.



P.A.S.S. Legislation

People Advocating Seatbelt Safety

612-878-1558

www.sihope.com/~kjob/pass/

Many believe the school bus is the safest mode of transportation available today. This may be true based on the way current school bus crash data is gathered. Collisions involving school buses will continue to occur and children will continue to sustain minor, serious, critical and fatal injuries. There is a solution...installation of seat belts, usage policies and uniform reporting of all school bus accidents.

Studies proving Seat Belts Reduce Injuries and Deaths

* UCLA 1967 – Tested pre-1977 school buses (no compartmentalization). Recommended seat belts, 28" seat back height, padded armrests and heavily padded seats.

* UCLA 1972 – Second set of crash tests conducted, researchers supported the 1967 findings.

* Transport Canada Study 1985 – A crash test study focusing on seat belts and injuries on school buses. Six abnormally stiff adult female dummies were used, three belted and three unbelted. One of the belted dummies did receive high injury criteria (HIC) due to the stiff neck, and lightly covered metal bar on the top of the 24" seat back height, yet the HIC was well below the unacceptable range. (In the many critiques of this study it is determined that if a 28" seat back height were used the belted dummies HIC would have been much lower) The only dummy that experienced life-threatening forces, due to an unacceptable chest acceleration, was unbelted.

*1989, Special Report 222: "Improving School Bus Safety"- A comprehensive study by the National Research Council, an operating agency of the National Academy of Sciences and sponsored by the National Highway Traffic Safety Administration. Special Report 222 concludes,

"Seat belts, when properly used on large, post-19[illegible] buses, are not inherently harmful and may reduce the likelihood of death or injury to passengers involved in school bus crashes by up to 20%."

*In 1979, the National Student Transportation Association, (NSTA), was victorious in the removal of anchorages, seat belts and lighted dashboards from Docket 73-3. Proudly saving the Transportation Director and Contractor $300.00 per new bus. *(NSTA February 1979 Newsletter)*

Types of Crashes causing Injuries and Fatalities Frontal, Side, Rear, Roll Over and Non-collision

In the most severe or fatal school bus accidents, the initial impact is not the only harmful event. Usually, a second harmful event or collision takes place, where after colliding with a motor vehicle, a bus skids off the road into a tree or fixed object or results in a rollover. Injuries also occur in non-collision accidents: railroad tracks, medians, ice, slamming on the breaks, potholes, curbs, etc.

NHTSA Traffic Safety Facts 1997 – School Buses

- "Impacts to the front of the school bus occur in 42 percent of fatal school bus related crashes." Is Compartmentalization alone providing enough protection in frontal impacts?
- What types of impacts are causing the other 58 percent of fatal school bus related crashes? Side, rear-end, rollover and non-collision school bus related crashes? Compartmentalization alone does not provide the protection the occupants need during these types of impacts.

Seat Belts Installed on Large School Buses

* 1977 – All type A, (under 10,000 lbs.), school buses.
* Ardsley, NY, West Orange NY, and Entobicoke, Canada have installed seat belts for over 20 years.
* New York July 1st 1987 – Mandates the installation of seat belts & 28" seat back height, but does not mandate the usage of seat belts.
* New Jersey 1992 – Mandates the installation and the usage of seat belts, includes 28" seat back height.
* New York 1998 – Department of Education recommends the usage of seat belts.
*Europe and Australia – Motor coach used as school bus, installing lap belts and more recently lap/shoulder belts allowing two to a seat.
*Additionally there are over 200 individual school districts, in the U.S. mandating the installation and usage of seat belts in large school buses.

Do Seat Belts Cause Additional Injury?

Those who oppose installation of seat belts believe that seat belts, (lap belts), will cause abdominal or other additional injuries. If this were true, why do we continual transport the physically disabled in lap belts on school buses? This belief is based on automobile studies. There

is not, in existence, a school bus study supporting abdominal or additional injuries sustained by an occupant wearing a seat belt on a school bus being more severe than if the occupant had not been restrained.

Since 1977, (22 years), Type A school buses, (under 10,000 lbs.), are required to install seat belts, (lap belts), because they are smaller and experience greater crash pulses than the larger type school buses. Type A school buses have been involved in some of the most severe school bus crashes. Snyder Oklahoma, the sole occupant wearing a lap belt was seated in the center of the impact zone and survived the crash. Other occupants were ejected through the windows sustaining critical and fatal injuries.

The Transportation Research Board Special Report 222 concluded that a *50% lap belt usage rate may have reduced deaths and injuries by up to 20%*. In addition, the committee also concluded:
"The potential benefit to be realized from the use of seat belts in school buses is somewhat less than the benefit afforded rear-seat occupants in passenger cars because the greater mass and safer operating conditions of school buses reduce the initial risk of death of and injury to school bus occupants. On the other hand fewer belt-induced injuries can be expected to the abdomen of children using properly adjusted seat belts on firm school bus seats, as compared with the softer seats in passenger cars, because of better belt fit and the reduced potential for submarining.

According to Dr. Arnold W. Siegel, Forensic Consultant, "school buses are close to ideal due to the seat design, the seat belt angles related to the pelvic area of a child, the seat height from the floor, and the location of the belts to the seat horizontal frame bar." *(Trauma Research Group Collision and Injury Research, in Encino, California source: David Cullen, Florida PTA)*

After 22 years of experience with seat belts installed on all sizes of school buses, restraining all sizes of occupants, there should be ample documentation of seat belts causing abdominal injuries by now. The same argument can be made for head and neck injury. If the jackknifing of the passenger by the belt were going to cause serious injuries there would be documentation of those injuries in small buses where the crash pulses are greater.

"Buckle-Up, Every Time – Every Ride"

Are Seat Belts Cost Effective?

Seat belts cost $1,500 - $2,000 dollars per new bus, or only $1.50 - $3.00 per occupant per year or simply $24.00 per belt. Seat belts are relatively inexpensive compared to the medical expenses of the unbelted injured occupants.

Liability

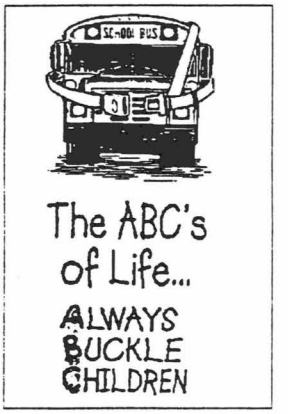
Reduce school districts exposure to liability by reducing the number of injuries on the school bus. Where a school board can show that it has adopted policies and implemented practices which enhance school bus safety through seat belt installation, education and enforcement policies, the liability of the school district is reduced, if not eliminated.

Seat Belts Improve Student Behavior

In Minnesota, the average number of school bus crashes per year from 1991 through 1995 was 842. *There were 961 school bus crashes in 1997, the second highest number ever recorded.* (There were 1,041 school bus crashes in 1996) Though there were 961 school bus crashes in 1997, a few involved more than one school bus. In all, there were 979 school buses in crashes. There were 408 total injuries in 1997. *Of the 408 injuries, 197 were occupants of a school bus*, 193 were occupants of other motor vehicles, and 18 were pedestrians. *Driver inattention or distraction accounts for 22% of the accidents,* failure to yield the right of way, (14%).

Student behavior is greatly improved as was noted in the 1997 NY survey of the 44 school districts requiring seat belt usage. The results of the survey were released in November 1998. The conclusions of the NY Department of Education, "Seat Belts on School Buses" states:

The most important aspect of seat belt use is that the belts are a great management tool for student behavior. When wearing belts the students are seated and therefore there is:
(1) less fighting and physical contact.
(2) a quieter trip.
(3) less confusion and fewer distractions for the driver.
"The result is a safer trip"



Seat Belts are Life Savers
In every mode of Transportation

TESTIMONY ON HB 1323
CAROL HOLZER
ND DEPARTMENT OF HEALTH
HOUSE EDUCATION COMMITTEE
January 27, 1999

Madame Chair, representatives, my name is Carol Holzer. I am the Injury Prevention Program Director in the State Health Department.

Our agency supports the concept of seat belt use by children in any type of vehicle.

We recognize that use of seat belts on school buses is one of the most controversial issues in child transportation. For every study that says seat belts are not effective, there is a study that says they are. In general, our injury prevention program follows the recommendations of the American Academy of Pediatrics regarding safety issues. According to the AAP handbook, Injury Prevention and Control for Children and Youth, "the AAP recommends installation of safety belts on all newly purchased school buses. The AAP and other organizations believe that children are better protected on buses with safety belts, while still others believe that the current padded seats (compartmentalization) are adequate protection."

The AAP believes that seat belts should only be installed at the factor and does not recommend retrofitting older buses with belts.

Through my work, I speak to many parents and children about child passenger safety. One of the most common questions I am asked is why school buses do not have seat belts. Parents and children do not understand the inconsistencies in requiring the use of seat belts in personal vehicles, yet allowing children to ride unrestrained in a bus.

We are aware that the National Highway Traffic Safety Administration has recently undertaken a research project to review crash data and study various occupant protection systems. It is our hope that the project will resolve some of the controversies and allow us to do what is best for our children's protection – regardless of the cost.

Submitted by,

Carol Holzer
Injury Prevention Program Director
ND Department of Health

North Dakota School Bus Crashes

1993 - 1998

Year	Total Crashes	Fatal Crashes	Fatalities	Injury Crashes	# Injured	* PDO Crashes	Total People Involved
1993	43	0	0	9	22	34	147
1994	34	0	0	6	42	28	263
1995	21	0	0	5	8	16	64
1996	26	1	1	9	15	16	147
1997	30	0	0	12	14	18	167
1998	30	0	0	5	5	25	111
tals:	184	1	1	46	106	137	899

* PDO - Property Damage Only crashes, with total damages greater than $1,000.

Marsha M. Lantke, Director of Drivers License & Traffic Safety

North Dakota Department of Transportation
Drivers License & Traffic Safety Division
January 26, 1999

NATIONAL ASSOCIATION OF STATE DIRECTORS OF PUPIL TRANSPORTATION SERVICES

News Release

For additional information, contact:
Charles Gauthier
NASDPTS
116 Howe Drive
Dover, DE 19901
703-734-1620

For Release:
Friday January 8, 1999

Passenger Crash Protection in School Buses

Position Paper Issued

The National Association of State Directors of Pupil Transportation Services has issued its updated Position Paper on Passenger Crash Protection in School Buses. During the past several months, a number of significant actions have taken place which have a direct impact on the issue of passenger crash protection in school buses.

Specifically, the National Highway Traffic Safety Administration has announced a 2-year research program to consider alternative methods of potentially improving Federal school bus passenger crash protection requirements. In addition, the National Transportation Safety Board held a public hearing on the crashworthiness and survivability of all types of buses. Finally, the Chairman of the National Transportation Safety Board provided public statements concerning his views on the future of school bus crash protection. This new position paper discusses the above information, as well as other issues related to the safety of children being transported to and from school and school-related activities.

The July 1998 version of this Position Paper should no longer be utilized. Wide dissemination of this paper is encouraged.

The position paper reaches the following conclusions:

- The State Directors Association fully supports NHTSA's announced research program, and believes it is the appropriate mechanism for resolving the current debate about the appropriateness of lap belts in school buses, and to establish the foundation for potential improvements to school bus safety.

- The State Directors Association believes that all interested parties should take an active interest in the NHTSA research program, so as to insure that the program addresses the appropriate issues, and that NHTSA is aware of all existing data relative to pertinent issues involved in passenger crash protection in school buses. Without complete data, there are no bases to support changes to existing school bus safety requirements.

- Without information on the cause, type, and severity of injury being suffered by school bus passengers in various types of crashes, it is not possible to properly evaluate the relative benefits of different forms of passenger crash protection in terms of preventing or inflicting injuries to children in school buses. Without data on how and when lap belts, or lap/shoulder belts, or "compartmentalization" either reduce the risk of injury or cause an increased risk of injury to children on school buses, it is inappropriate to suggest changes to current requirements for the crash protection of school bus passengers.

- The State Directors Association believes it is inappropriate to consider legislation, at any level, to require lap belts in school buses while the Federal government is conducting research that is designed to develop the next generation of passenger crash protection systems in school buses.

- While the NHTSA research program is underway, the State Directors Association believes that the pupil transportation industry, parents, state and local legislators, and all other interested parties should join forces in an effort to reduce the hundreds of deaths and serious injuries to children that travel to and from school and school-related activities in private vehicles, in vans that do not conform to Federal safety standards for school buses, in transit vehicles, or who walk or ride bicycles. In addition, the safety of children as pedestrians in the school bus loading zone must continue to be addressed. When the Federal government has completed its research, then the focus should return to the best means of providing passenger crash protection to children on school buses.

NATIONAL ASSOCIATION OF STATE DIRECTORS OF PUPIL TRANSPORTATION SERVICES

MEMORANDUM

January 12, 1999

TO: State Directors, Supplier Council, SBMTC, State Associations & Associate Members

FROM: Terry Voy, President, NASDPTS

RE: Position Paper - "Passenger Crash Protection in School Buses" An Update.

The National Association of State Directors of Pupil Transportation Services has issued its updated Position Paper on Passenger Crash Protection in School Buses. During the past several months, a number of significant actions have taken place which have a direct impact on the issue of passenger crash protection in school buses.

Specifically, the National Highway Traffic Safety Administration has announced a 2-year research program to consider alternative methods of potentially improving Federal school bus passenger crash protection requirements. In addition, the National Transportation Safety Board held a public hearing on the crashworthiness and survivability of all types of buses. Finally, the Chairman of the National Transportation Safety Board provided public statements concerning his views on the future of school bus crash protection. This new position paper discusses the above information, as well as other issues related to the safety of children being transported to and from school and school-related activities.

The July 1998 version of this Position Paper should no longer be utilized. Wide dissemination of the enclosed paper is encouraged.

Enclosures: Position Paper
News Release on Same

NATIONAL ASSOCIATION OF STATE DIRECTORS OF PUPIL TRANSPORTATION SERVICES

POSITION PAPER

Passenger Crash Protection in School Buses
An Update

INTRODUCTION: In July 1998, the National Association of State Directors of Pupil Transportation Services issued a Position Paper titled, "Passenger Crash Protection in Large School Buses." Since then, a number of significant actions have taken place. This updated Position Paper provides the latest information on passenger crash protection in all sizes of school buses.

Additionally, Dr. Phyllis Agran, one of the authors of a scientific paper quoted in the July 1998 Position Paper, notified the Association of her objection to the manner in which the paper was used in the Position Paper. Specifically, Dr. Agran noted that permission was not obtained from either her or the American Academy of Pediatrics, holder of the copyright. Furthermore, Dr. Agran noted that excerpts were taken out of context, edited, and presented in a misleading manner to support the State Directors Association's position against lap belts in large school buses. Dr. Agran has made it clear that in no way does the article, "Child Occupant Protection in Motor Vehicles," authored by her and her colleagues, suggest that children would be better protected from occupant injury in school buses if they were unrestrained, as is implied in the July 1998 Position Paper.

It was never the intention of the State Directors Association to violate any copyrights or misstate, take out of context, or misrepresent the information contained in Dr. Agran's scientific paper. The State Directors Association believes Dr. Agran's paper is an excellent work, and regrets any misunderstandings that may have resulted from the reference to her scientific paper in the July 1998 Position Paper.

The July 1998 version of this Position Paper should no longer be utilized.

Introduction

No one questions that school buses are the safest form of highway travel, or that today's school buses provide students with exceptional levels of safety. Despite these facts, the pupil transportation industry constantly is seeking ways to make a safe form of transportation even safer. In this quest, there are times when individuals and organizations will disagree over the potential benefits of certain safety features. This paper provides a discussion of the current status of passenger crash protection in school buses. It also provides comments from safety experts and safety researchers on the appropriateness of lap belts as a means of passenger crash protection for children. A Summary and Conclusions section is presented first, followed by detailed discussions of the wide range of topics and issues involved in the crash protection of children in school buses.

The State Directors Association believes it is important to define the terms that are used in the debate over the best means of providing crash protection to children in school buses. Unless terms that are consistent and unambiguous are used, there may be confusion. Unfortunately, the term "seat belt" means different things to different people.

Rather than using non-definitive terms such as "seat belt," precise terms should be used to define the "belt system" under discussion – it is either a "lap belt" or a "lap/shoulder belt." These terms are easily and completely understood by everyone.

Summary and Conclusions

School buses are the safest form of motor vehicle travel in the United States. While every serious injury or fatality to a student in a school bus is tragic, such instances are few in number each year. Nationwide, on average there are fewer than 10 school bus passenger fatalities each year out of approximately 10 billion student trips. In contrast, more than 800 school-aged children are killed in passenger cars or other private vehicles during normal school hours. It is likely that many of these children were on their way to or from school or school-related activity. In such instances, had these children been in a school bus, they would most likely be alive today.

Based on all of the real-world facts, "compartmentalization" in today's school buses is providing an extremely high level of crash protection for student passengers considering all the types of crashes involving school buses. There are no aggregate statistical data to suggest that a safety problem exists in large school buses that the installation of lap belts would solve. In fact, there is growing concern among safety professionals around the world over the use of lap belts as a form of passenger restraint for young or small children. In August 1998, at a public hearing held by the National Transportation Safety Board, five international experts in the field of motor vehicle occupant crash protection expressed their concern about the appropriateness of lap belts in providing crash protection to small children. The unanimous opinion was that lap belts were not a good means of providing crash protection to small children because small childrens' bone structure, particularly their hips, is still developing through grade school.

In addition, in November 1998, Mr. Jim Hall, Chairman of the National Transportation Safety Board, spoke to a national conference of school transportation professionals. In his remarks, Chairman Hall stated that, "I personally think it is our turn now to step up to the plate on the issue of lap/shoulder belts in school buses." He went on to state that while "we have to stop being indecisive on this issue," we should "commit to doing it, but let's do it right." Chairman Hall reiterated that "we have to make sure this is done on the basis of solid science. We don't want to simply bolt in lap belts at every seating position." Finally, Chairman Hall stated that "lap belts are probably not the most effective form of restraint for the millions of children transported on school buses."

A number of scientific papers that assess the effects of lap belts and lap/shoulder belts on children involved in real-world motor vehicle crashes have been conducted. While these studies appear to be based exclusively on children in passenger cars and other private vehicles, the conclusions of the studies raise important questions with respect to the appropriateness of lap belts in school buses. For example, the report, "Injuries to Children Restrained in 2- and 3-Point Belts," was presented at the 42nd Annual Proceedings of the Association for the Advancement of Automotive Medicine in October 1998. While the authors of the study did not draw any conclusions about the relative efficacy of lap belts versus lap/shoulder belts, they did point out that "Injury risks to children restrained in 2-point belts have been well described. 'Seat belt syndrome,' associated with the use of 2-point belts, includes contusion of the abdominal wall, fracture of the lumbar spine, and intra-abdominal injury."

The study concluded that, "Children restrained in 3-point belts exhibit a similar pattern of injury to those in 2-point belts, however 3-point belts appear to be protective for the lumbar spine." The authors of this study noted that while it included data on more real-world crashes than previous studies of the effects of 3-point lap/shoulder belts on children, it was still a relatively small study, and excluded belted children who were uninjured in motor vehicle crashes. The absence of data on children using lap or lap/shoulder belts who where uninjured makes it impossible to draw any conclusions about the absolute or relative effectiveness of lap or lap/shoulder belts on children.

The purpose of citing this study is not to suggest that the paper or the authors of the paper believe children are better off unrestrained in motor vehicles. Rather, studies such as this appear to indicate that all types of passenger crash protection devices may have unique consequences for children. The State Directors Association believes it is extremely important to understand the interaction of all types of passenger crash protection devices on the human body. Much is learned through epidemiological studies that are conducted by the medical community. If children or adults are needlessly injured in real-world crashes, such studies can assist in the identification of problems and the development of solutions to those problems.

The development of a better understanding of the types and causes of injuries occurring to passengers in school buses can not be overstated. This information can only be gathered from medical records, either from the hospital or physician that treated the injured child. Without medical information on the type and severity of injury being suffered by school bus passengers in various types of crashes, it is not possible to properly evaluate the relative benefits of different forms of passenger crash protection in terms of preventing or inflicting injuries to children in school buses. Without data on how and when lap belts, or lap/shoulder belts, or "compartmentalization" either

reduce the risk of injury or cause an increased risk of injury to children on school buses, it is inappropriate to suggest changes to current requirements for the crash protection of school bus passengers.

Some have suggested that differences in seat design (such as the seat cushion stiffness) between passenger cars and school buses reduce concerns about lap belt-induced injuries to small children. The State Directors Association believes it is only possible to determine the effect of seat designs on the relationship between lap belts and the skeletal development of children through scientific evaluation, including laboratory testing and evaluations of real-world crashes and medical records.

To that extent, in August 1998, the National Highway Traffic Safety Administration (NHTSA) announced an extensive 2-year research program to consider alternative methods for potentially improving Federal school bus passenger crash protection requirements. In announcing the program, NHTSA reiterated its belief that "compartmentalization" has proven to be an excellent form of school bus passenger crash protection, but believes it is important to develop the necessary data and science to review and evaluate objectively potential improvements in passenger crash protection for the next generation of school buses. The NHTSA research program is designed to determine whether it is technologically feasible and operationally practicable to upgrade the current Federal standards for passenger crash protection in school buses. The research approach is direct – develop data on existing school bus crashes to determine the causes of fatalities and serious injuries; use that data to evaluate existing and alternative passenger crash protection systems in a laboratory test environment; and consider the impact of various passenger crash protection systems on school bus capacity and emergency egress. Based on the results of this research program, the data and science necessary for making informed decisions about the safety of all children in school buses should be available.

Until such time that the research and crash test data support alternative crash protection systems, the State Directors Association continues to support the conclusions reached during the past 20 years by the National Academy of Sciences and the National Transportation Safety Board, and the position of the National Highway Traffic Safety Administration, that there is no supportable need for lap belts in large school buses. In addition, the State Directors Association believes that legislators and regulators, in carrying out their responsibility to establish public policy through laws and regulations, have an obligation to make decisions based on data and science, not emotion and supposition. To do otherwise could result in public policies that improperly use society's limited resources, and could result in additional injuries and fatalities to school bus passengers, rather than reducing or eliminating them.

The State Directors Association fully supports NHTSA's announced research program, and believes it is the appropriate mechanism for resolving the current debate about the appropriateness of lap belts in school buses, and to establish the foundation for potential improvements to school bus safety. The State Directors Association has provided suggestions to NHTSA on the scope and content of the research program, and will, to the extent permitted, stay involved in the research program and its results. The State Directors Association has already requested that NHTSA expand the scope of its research program to include all sizes of school buses, based on its concerns about the appropriateness of lap belts as a form of crash protection for young children.

The State Directors Association believes that all interested parties should take an active interest in the NHTSA research program, so as to insure that the program addresses the appropriate issues, and that NHTSA is aware of all existing data relative to pertinent issues involved in passenger crash protection in school buses. Over the years, many studies of school bus transportation have noted that there is a need for more and better data upon which to draw conclusions and make decisions. The NHTSA research program should be structured to collect and analyze the data needed to make informed public policy decisions about passenger crash protection in school buses. Without complete data, there are no bases to support changes to existing school bus safety requirements.

The State Directors Association believes it is inappropriate to consider legislation, at any level, to require lap belts in school buses while the Federal government is conducting research that is designed to develop the next generation of passenger crash protection systems in school buses. Without attempting to pre-judge the outcome of NHTSA's research program, it does not appear that the agency would conclude that lap belts, a 30-year-old technology, were the most effective form of passenger crash protection for school buses for the next century. Rather, with the advancements that have been made in lap/shoulder belt systems and energy absorbing materials and construction techniques, it would appear that NHTSA would propose changes to school bus passenger crash protection utilizing the latest technologies.

While the NHTSA research program is underway, the State Directors Association believes that the pupil transportation industry, parents, state and local legislators, and all other interested parties should join forces in an effort to reduce the deaths and serious injuries to children that, either by choice or circumstance, travel to and from school and school-related activities in private vehicles, in vans that do not conform to Federal safety standards for school buses, in transit vehicles, or who walk or ride bicycles. While there are no exact numbers available, it is clear that hundreds of children are needlessly killed each year as they travel to or from school or a school-related activity in some manner other than a school bus. It is likely that the number of serious injuries to such children is equally high. The State Directors Association believes the most prudent course of action for the next two years is to address the safety issues of children not in school buses. In addition, the safety of children as pedestrians in the school bus loading zone must continue to be addressed. When the Federal government has completed its research, then the focus should return to the best means of providing passenger crash protection to children on school buses.

As a final note, the pupil transportation industry is made up of thousands of people who have the safety of children as their highest priority. Most are parents, also. Whenever there are devices or procedures which have the potential to make pupil transportation even safer, the State Directors Association is at the forefront of the debate. If a device or procedure proves to be beneficial based on all available data and information, the State Directors Association stands ready to provide its support to legislators and regulators.

Background and Related Information

The issue of whether to require "seat belts" in large school buses [those with a gross vehicle weight rating over 10,000 pounds] is a topic that has been studied thoroughly and debated for many years. An important, but often overlooked fact in the debate, is the difference between lap belts and lap/shoulder belts. Until recently, no one has advocated the installation of lap/shoulder belts in large school buses. During the last year, school transportation organizations have expressed their support for studies to determine the engineering feasibility and operational practicability of installing and using lap/shoulder belts for passengers of all ages and in all sizes of school buses. In addition, it is critical to develop an understanding of the interaction of lap/shoulder belts on children of all ages and sizes from a medical perspective.

In general, advocates for lap belts in school buses point to the potential benefits of lap belts in terms of reduced injuries and fatalities in certain types of school bus crashes -- typically side impact and rollover crashes. They also refer to improvements in pupil behavior as the result of lap belt usage. Finally, advocates point to the importance of consistency in teaching children to buckle-up in all types of motor vehicles -- if there are no lap belts in school buses, advocates believe there is an obvious break in the chain of consistency.

Life, however, is filled with numerous inconsistencies that young children and young adults must face. How they face or deal with those inconsistencies depends on how they are presented and explained by parents, highway safety officials, or educators. Children, even the very young, have tremendous capacity to reason and understand. For instance, children learn from infancy that adults are the rule makers, authority figures, and should be obeyed. All their contacts with adults (parents, grandparents, care givers, teachers) reinforce this teaching. However, children are also taught at an early age that some adults are not to be obeyed, such as strangers who offer gifts, auto rides, or attempt to touch children in unacceptable ways.

When appropriately presented, children and young adults can understand that a school bus and an automobile are very different in purpose, design, and construction. And, they can understand that although a lap belt or a lap/shoulder belt are important and appropriate for use while traveling in an automobile, light truck, or van, the passive occupant safety system in school buses, "compartmentalization," is equally appropriate.

Those opposed to the installation of lap belts in large school buses point to a wide variety of data and facts: (1) the safety record of school buses; (2) analyses of <u>all</u> types of real-world school bus crashes; (3) laboratory crash test data; and (4) the potential effects of lap belts on young children.
It is important to realize that lap belts only provide restraint around the hips of a seated individual. Lap/shoulder belts, on the other hand, provide restraint around the hips and across the upper torso of a seated individual.

The potential safety benefits of these two systems are very different. Lap belts, even when properly positioned and tightened, allow full upper torso movement. As a result, a person's head could contact surrounding surfaces at higher impact velocities than if they were unbelted. Lap/shoulder belts restrain the upper torso and, thereby, reduce the likelihood of head contact with a surrounding surface.

It has been suggested that school buses that have wider seat spacing to accommodate the installation of child safety seats will reduce the potential for head contact for passengers utilizing lap belts. While the greater seat spacing would obviously reduce the likelihood of head impacts. not all school buses would be constructed with child safety seat anchorage systems and the resulting wider seat spacing. Additionally, even in school buses that were equipped with child safety seat anchorage systems and wider seat spacing, such anchorage systems and seat spacing would not necessarily be at every row of seats in the school bus.

Safety Record of School Buses

One of the major reasons for the outstanding safety record of school buses is the manner in which they are constructed. As is the case with all motor vehicles sold in the United States, school buses have to meet a stringent series of Federal motor vehicle safety standards designed to provide school bus passengers with high levels of safety should a crash occur. One of those Federal standards, "School Bus Passenger Seating and Crash Protection," establishes minimum occupant crash protection requirements for school buses built after April 1, 1977. For large school buses, the Federal standard requires occupant protection through a concept called "compartmentalization" -- strong, well-padded, well-anchored, high-backed, evenly-spaced seats.

In the late 1960's and early 1970's, research was conducted on how to best provide passenger crash protection to the various sizes of children that ride school buses. The research looked at alternative ways of reducing pupil injuries and fatalities in school buses as they existed at that time. School buses of that era typically had exposed metal seat frames and grab bars on the top of the seats, and the seats had little or no crash energy management or energy absorption capabilities.

Some of the research suggested that improvements in seat structure and energy absorbing padding, along with the installation of lap belts, were needed to improve the safety of children in school buses. However, there were other data and factors that had to be considered in establishing the Federal standards governing school bus construction. One of the most relevant dealt with concerns about whether lap belts would be used. No type of restraint device provides a benefit unless the vehicle occupant actively connects the belts.

In the mid 1970's when the Federal school bus standards where being developed, only a small percentage of occupants in all types of vehicles used the available belt system. This fact suggested that the usage rate of lap belts in large school buses would be equally low. No state or jurisdiction had mandatory belt use laws, as currently exist. As a result, the Federal government looked to a "passive" means of providing passenger crash protection in school buses. A "passive" crash protection requires no action by the vehicle occupant to attain the benefits of the system. For example, air bags, motorized lap/shoulder belt systems, and interior padding require no action by the vehicle occupant to obtain the benefits of the system.

The inherent benefits of a "passive" crash protection system versus an "active" crash protection system are important. First, the benefits of a "passive" system are always there, and require no action by the vehicle occupant. Second, "passive" crash protection systems, particularly those that utilize energy-absorbing structures and padding, provide protection to different sizes of occupants and in various seating positions. The "compartmentalization" concept for passenger crash protection in school buses is a passive crash protection system.

It must be recognized that the research conducted in the 1960's and 1970's was done on school buses that did not meet the safety requirements of modern school buses, those manufactured since April 1, 1977. Thus, it would be inappropriate to consider the results of those tests with respect to the potential effectiveness of lap belts in school buses that meet current Federal safety standards. The crash performance and interior design features of school buses built prior to April 1, 1977, are not comparable to school buses built after that date.

The effectiveness of "compartmentalization" has been confirmed in independent studies by the National Transportation Safety Board and the National Academy of Sciences.

National Transportation Safety Board (Safety Board)

In 1987, the Safety Board completed detailed analyses of 43 serious accidents involving large school buses to evaluate the effectiveness of "compartmentalization."[1] These crashes included frontal and side impacts, and included a large number of rollover crashes. A Safety Board team of accident investigators reconstructed each crash, evaluated the motion of the occupants, and identified the cause(s) of the injuries/fatalities. For each crash, an evaluation was made of whether the use of lap belts would have made a difference in the injury levels of the school bus occupants.

From a public policy perspective, the Safety Board's conclusions are extremely important.

- School bus occupant deaths and the serious or worse injuries sustained by survivors were, for the most part, attributable to the occupants' seating position being in direct line with the crash forces. It is unlikely that the availability of any type of restraint would have improved their injury outcome.

- Lap belt use probably would have made no change in the total number of school bus passengers who died in the crashes investigated ... possibly one more death would have resulted.

- Lap belt use probably would have made no change in the number of surviving school bus passengers with severe or worse injuries.

- At best, lap belt use probably would have reduced somewhat the injuries of less than 8 of the 24 surviving school bus passengers with serious injuries. At worst, seat belts might have increased the injury to almost as many passengers with serious injuries as it improved.

- Lap belt use probably would have worsened the outcome for one-fifth [20%] of the 58 school bus passengers with moderate injuries.

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[1] "Crashworthiness of Large Poststandard Schoolbuses," National Transportation Safety Board, Report Number NTSB/SS-87/01, March 18, 1987. This study was designed to evaluate the effectiveness of the Federal requirements for "compartmentalization" under FMVSS No. 222. As such, it only compared the post-1977 school buses with pre-1977 school buses that were built to Federal requirements. Since there were no Federal requirements for lap belts on either pre-1977 school buses or post-1977 large school buses, it would have been inappropriate to include any crashes involving school buses equipped with lap-belts in this study.

These real-world data clearly show that while lap belts may offer a safety benefit in some instances, in most crashes the installation and use of lap belts would not have changed the injury outcome of the crash. Equally important is the fact that in a significant number of crashes the use of lap belts would have worsened the injury levels. In fact, it appears that in one instance the use of lap belts would have killed a child that would have otherwise survived. When all crashes are considered, it appears from the data that there are no overall benefits of lap belts in large school buses.

Since the Safety Board's study was completed in 1987, there have been a number of school bus crashes that have resulted in fatalities and serious injuries. While each of these crashes and the consequences are tragic, it is important to study such crashes to identify areas for potential safety improvements. Three of the most tragic crashes occurred in Carrollton, Kentucky; Alton, Texas; and Fox River Grove, Illinois.

In Carrollton, 27 occupants of a former school bus died due to fire and smoke inhalation. In Alton, 21 students drowned in a bus that rolled on its side and was totally submerged in water. And, in Fox River Grove, 7 students were killed when their bus was struck by a speeding train. Each of these crashes required immediate, quick action by passengers under extreme conditions, in order to survive. In Carrollton, a gasoline-fed fire spread rapidly through the bus, and provided very little time for evacuation of the crowded bus. In the Alton crash, the Safety Board's investigation report notes that there "was inadequate time for 81 desperate students to escape through the available window openings and rear emergency door. ... Escape was further complicated by dark murky water which obscured vision. ... The 21 students who perished did not have enough time to escape from the bus." In Fox River Grove, the students sitting in the back of the bus saw the train approaching and had only fractions of a second to move from the back of the bus to the front.

In each of these crashes, unlatching lap belts would have required additional time under panic conditions. In Carrollton, the passengers, many of whom were sleeping, were first stunned by a head-on crash with a pickup truck at a speed of over 100 miles per hour, and then had to cope with fire and dense smoke in an effort to escape the burning bus. No one died from trauma-induced injuries. In Alton, the bus was struck by a tractor-trailer, then plunged from a cliff into water, and the students had to escape in murky water while the bus was on its side. Any passengers on the right side of the bus would have been hanging from their seats by the lap belts. Again, no one died as a result of trauma-induced injuries. In Fox River Grove, all of the students in the back of the bus had only milliseconds to get out of their seats and run forward prior to the collision.

There is little doubt that the installation and use of lap belts in these crashes would have resulted in additional fatalities and serious injuries. This fact must be considered in any debate over the potential benefits of lap belts in school buses. Unfortunately, these crashes often are ignored by those who advocate the installation of lap belts in school buses. Instead, advocates for lap belts in school buses tend to base their arguments on selected crashes. For example, a 1996 rollover crash of a school bus in Flagstaff, Arizona, which resulted in five students being ejected from the bus, one of whom suffered serious permanent injuries. Of the 26 other students in the school bus, one also suffered serious permanent injuries. Like all fatalities and injuries to children, these injuries are tragic and everyone wishes they had never happened. However, in making public policy decisions, it is imperative to consider all information on a subject, not just data from selected crashes.

As stated earlier, there have been school bus crashes where lap belts may have offered a safety benefit. However, there are other crashes where the installation and use of lap belts would have resulted in more injuries and fatalities. When the entire range of school bus crashes are considered, the State Directors Association does not believe there is a compelling body of data to support the installation of lap belts in large school buses.

National Academy of Sciences

In 1989, the National Academy of Sciences completed a study at the direction of the United States Congress on "the principal causes of fatalities and injuries to school children riding in school buses and of the use of seat [lap] belts in school buses and other measures that may improve the safety of school bus transportation." The Academy was directed to "determine those safety measures that are most effective in protecting the safety of school children while boarding, leaving, and riding in school buses." In its conclusions, the Academy noted that "the overall potential benefits of requiring safety [lap] belts on large school buses are insufficient to justify a Federal requirement for mandatory installation. Funds used to purchase and maintain seat [lap] belts might be better spent on other school bus safety programs and devices that could save more lives and reduce more injuries." The Academy pointed out that since children are at greater risk of being killed in the school bus loading zone (i.e., while boarding or leaving the bus) than as a passenger in the school bus, "a larger share of the school bus safety effort should be directed to improving the safety of school bus loading zones."[2]

One of the often cited conclusions from the Academy's study is that "seat (lap) belts, when properly used on post-1977 ... school buses, may reduce the likelihood of death or injury to passengers involved in school bus crashes by up to 20 percent." That estimate was based on a 1986 study of rear seat occupants in passenger cars, only a small minority of which were of school age. It should be noted that at the time the 1986 study was conducted, there were relatively limited amounts of real-world data on the effectiveness of lap belts in the rear seats of passenger cars. Based on the differences in the body sizes of school bus and passenger car occupants, and the importance of proper position and adjustment of lap belts, it is not clear that the "up to 20 percent" effectiveness estimate was accurate with respect to school buses.

Since the mid 1980's, additional and significant real-world data have been obtained on the effectiveness of lap belts for rear seat occupants in passenger cars, primarily since belt usage in motor vehicles has increased dramatically in that time frame. Based on real-world crash data through 1996, NHTSA currently estimates that lap belts in school buses at best would be 5 percent effective in reducing school bus passenger fatalities.

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[2] It should be noted that while improvements have been made in school bus loading zone safety since the National Academy of Sciences' 1989 report, the greatest safety risk to pupils riding school buses is still as a pedestrian in the school bus loading zone. When all pupil transportation modes are considered, the greatest safety risk to students is as a pedestrian walking to or from school or as a passenger in a private motor vehicle transporting the student to or from school.

Considering those crashes where lap belts would likely exacerbate injuries, NHTSA estimates that lap belts would have no overall effectiveness in school buses. In its conclusions, NHTSA noted that the greatest benefit of lap belts to rear seat occupants of passenger cars was in terms of preventing ejection from the car, typically in rollover crashes. Since fatalities and serious injuries due to ejection from a school bus are relatively rare events, the effectiveness rate of lap belts in passenger cars is not directly applicable to school buses. These NHTSA conclusions were provided at an August 1998 Public Hearing held by the National Transportation Safety Board on Bus Crashworthiness and Occupant Survivability.

Lap Belt Concerns

In addition to the NHTSA comments at the August 1998 Public Hearing, an international panel of experts in the field of motor vehicle occupant crash protection testified about their views and opinions on how best to provide passenger crash protection to children in school buses. Five researchers, representing Australia, Canada, Europe, and the United States were asked about the appropriateness of lap belts in providing crash protection to small children. The unanimous opinion was that lap belts were not a good means of providing crash protection to small children because small childrens' bone structure, particularly their hips, is still developing through grade school.

One of the researchers discussed a passenger car crash where "...two children have become paraplegics in the rear of one vehicle that was struck head-on, because they were wearing lap belts, and they suffered severe injuries to their spine." Another researcher commented that, "The lap belts involve, in my mind, an unsatisfactory compromise." A third stated. "...as regard children, I would never ever recommend using lap belts." A comment by one of the researchers appears to accurately reflect the views of all of the international researchers – "So I think there is a lot to be considered before we wave our arms and say, 'Lap belts are the answer'."

In addition to the potential for a lap belt to cause internal injuries to small children, lap-belted school bus passengers also risk more severe head and neck injuries in crashes. Unlike passenger cars where there may be a significant amount of space between the rear seat and the front seat, in school buses the seat spacing has been significantly reduced by design. In 1985, Transport Canada issued a report on a series of crash tests it conducted to examine the outcome of lap-belted test dummies in simulated frontal crashes. These tests indicated that lap-belted test dummies in school buses received more severe head and neck injuries than unbelted test dummies in severe frontal crashes. At the time, several individuals questioned the test procedures and results of the Transport Canada study. However, no additional testing was done. In a 1997 series of crash (sled) tests conducted by NHTSA, the same results were found – lap-belted test dummies in school bus seats received higher head injury measures than unbelted test dummies. These 1997 tests appear to confirm the earlier study by Transport Canada.

In a November 2, 1998, speech before the annual conference of the National Association for Pupil Transportation, Jim Hall, Chairman of the National Transportation Safety Board spoke about school bus passenger crash protection. In his comments, Chairman Hall stated that, "I <u>personally</u> think its our turn now to step up to the plate on the issue of <u>lap/shoulder belts</u> in school buses." [Emphasis added.] Chairman Hall also stated that, "It is time for the school pupil transportation network of this country to call on the manufacturers and regulators to make this happen, rather than waiting for it to happen."

While these comments may be interpreted that Chairman Hall personally believes lap/shoulder belts should be installed in school buses right away, such a position is not supported by other statements he made. Specifically, Chairman Hall stated that while "we have to stop being indecisive on this issue," we should "commit to doing it, but let's do it right." Chairman Hall reiterated that "we have to make sure this is done on the basis of solid science. We don't want to simply bolt in lap belts at every seating position." Finally, Chairman Hall stated that "lap belts are probably not the most effective form of restraint for the millions of children transported on school buses."

While lap/shoulder belts in school buses may be one of the most logical technologies to evaluate, there is a significant amount of research to conduct before drawing conclusions about the efficacy of lap/shoulder belts in school buses. For example, the necessary science on how to design and install lap shoulder belt systems in school buses, such that they would be effective in reducing injuries and fatalities to all sizes of pupil passengers, has recently been initiated by several companies. The importance of developing the necessary data and science to determine the proper location of the shoulder belt anchorage point, so that it allows the shoulder belt to be in the proper location across the chest of every size child, can not be overlooked. There is considerable evidence that improper shoulder belt positioning is a significant safety problem in other types of motor vehicles. If we rush to install lap/shoulder belts in school buses without developing the necessary data and science, we may very well establish policies that result in a negative effect on the safety of children in school buses.

Additional Comments on Lap and Lap/Shoulder Belts

At the 1998 Annual Conference of the Association for the Advancement of Automotive Medicine, several presentations were made concerning injuries to children in motor vehicle crashes. In each case, it appears that the crashes investigated were confined exclusively to passenger vehicles. No school buses were included.

One of the papers[3] compared injuries to children restrained in lap belts and lap/shoulder belts. The authors studied the injuries to 98 children 15 years old or younger, half of which had been restrained in 2-point lap belts and the other half restrained in 3-point lap/shoulder belts. Seventy two percent of the children in the study were between the ages of 5 and 9 years -- the ages of children who typically ride school buses. The paper noted that, "Injury risks to children restrained in 2-point belts have been well described. 'Seat belt syndrome,' associated with the use of 2-point belts, includes contusion of the abdominal wall, fracture of the lumbar spine, and intra-abdominal injury."

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[3] "Injuries to Children Restrained in 2- and 3-Point Belts," Catherine S. Gotschall, Allison I. Better, Dorothy Bulas, and Martin R. Eichelberger of the Children's National Medical Center, and Frances Bents and Mike Warner of Dynamic Sciences, Inc., October 1998. 42nd Annual Proceedings of the Association for the Advancement of Automotive Medicine. This paper includes an extensive list of references which undoubtedly provide excellent information on crash protection for children.

The study concluded that, "Children restrained in 3-point belts exhibit a similar pattern of injury to those in 2-point belts, however 3-point belts appear to be protective for the lumbar spine." The authors of this study noted that while it included data on more real-world crashes than previous studies of the effects of 3-point lap/shoulder belts on children, it was still a relatively small study, and excluded belted children who were uninjured in motor vehicle crashes.

The absence of data on children using lap or lap/shoulder belts who where uninjured makes it impossible to draw any conclusions about the absolute or relative effectiveness of lap or lap/shoulder belts on children. The authors did not believe it was possible "to meaningfully compare the relative efficacy of the two restraint systems."

The purpose of citing this study is not to suggest that the paper or the authors of the paper believe children are better off unrestrained in motor vehicles. Rather, studies such as this appear to indicate that all types of passenger crash protection devices may have unique consequences for children. The State Directors Association believes it is extremely important to understand the interaction of all types of passenger crash protection devices on the human body. Much is learned through epidemiological studies that are conducted by the medical community. If children or adults are needlessly being injured in real-world crashes, such studies can assist in the identification of problems and the development of solutions to those problems.

While this study and others appear to be based exclusively on children in passenger cars and other private vehicles, the conclusions point out legitimate issues that must be fully understood with respect to the appropriateness of lap belts or lap/shoulder belts in school buses. Some have postulated that differences between school bus seats and passenger car seats are significant and that these differences reduce concerns about belt-induced injuries to small children. Others question whether there is scientific evidence that demonstrates the effects of seat designs on the relationship between lap and lap/shoulder belts and a child's skeletal development. This is the type of information that is expected to be developed during NHTSA's school bus passenger crash protection research program, which is discussed later in this paper.

Types of School Bus Crashes

Nationwide, the National Safety Council estimates that approximately 30,000 crashes occur each year in which a school bus is involved. Less than 7,000 of these crashes involve "injuries" to school bus occupants.[4] Most of these injury-involved crashes are minor in nature, however, serious school bus crashes do occur. When a serious crash occurs, the school bus passengers are mostly uninjured or receive minor to moderate injuries.[5] These serious crashes involve frontal, angular, side, rear, and rollover crashes.

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[4] The National Safety Council recently determined that the data it collects from individual states are inconsistent and unreliable indicators of actual injuries to school bus occupants. Accordingly, school bus occupant injury data will not be estimated by the National Safety Council in the future.

[5] According to mid-1980's state crash data reviewed by the National Academy of Sciences, only 5 percent of school bus passenger injuries are incapacitating (e.g., severe lacerations, broken limbs, head/chest injuries). A 1997 study of state crash data by NHTSA showed only 4 percent of school bus passenger injuries were serious, severe, or critical.

Unfortunately, there are crashes that result in serious injuries or fatalities to school bus passengers. Most of these crashes are very severe, and as reported by the National Transportation Safety Board in its 1987 report:

> "schoolbus occupant deaths and the serious or worse injuries ... were, for the most part, attributable to the occupant's seating position being in direct line with the crash forces. It is unlikely that the availability of any type of restraint [emphasis added] would have improved their injury outcome."

With respect to minor and moderate injuries, as discussed earlier, the Safety Board's study found that lap belt use would have worsened the injury levels for 20 percent of the students receiving moderate injuries. It was not possible to judge the effect of lap belt use on those passengers that only received minor injuries.

Obviously, there are some school bus crashes where lap belts may have reduced or eliminated injuries and/or fatalities. As was done in the National Transportation Safety Board's 1987 study, it is possible to assess what injuries may have been mitigated because of lap belts. However, it is much more difficult to suggest what injuries may have occurred as the result of the use of a lap belt, and whether those injuries would have been more severe than the injuries that were mitigated.

In order to evaluate objectively the potential safety benefit of any device, all aspects of the device must be studied and understood. It is not legitimate to consider isolated or anecdotal information and ignore a larger body of information and knowledge. Similarly, it is not legitimate to rely on hypothetical, theoretical, and/or laboratory information when real-world information exists.

Other Organizations

There is unanimity among a wide range of national organizations[6] that are charged with establishing national motor vehicle and highway safety policy that "compartmentalization" is effective in school buses and that lap belts should not be required in school buses. However, as with any controversial issue, there are organizations that believe there should be lap belts in school buses. These include a number of medical associations and state-level organizations. These organizations express their support for lap belts in school buses, but generally publish little or no data or detailed analyses to explain and justify their position, or do not consider all of the real-world data discussed above.

In the best interest of the safety and health of children, it would be beneficial if organizations that take a position on safety matters dealing with pupil transportation provided a detailed discussion and rationale for their position. This should include all of the facts, statistics, and analyses upon which the position is based, and should include a detailed discussion of why opposing views are incorrect or inappropriate.

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[6] These organizations include the National Highway Traffic Safety Administration, the National Transportation Safety Board, the National Safety Council, the National Academy of Sciences and others.

Some organizations and individuals have mis-characterized the conclusions from the 1989 National Academy of Sciences' report discussed earlier. In that report, the Academy concluded "seat (lap) belts, when properly used on post-1977, Type I school buses, may reduce the likelihood of death or injury to passengers involved in school bus crashes by up to 20 percent." [Emphasis added]

According to a March 27, 1998, Florida Senate Staff Analysis and Economic Impact Statement, the Florida PTA utilized the National Academy of Sciences' report to assert "that seat belts[7] on school buses would improve safety by 20 percent." [Emphasis added] Similarly, a citizens' group in Minnesota, People Advocating Seatbelt Safety, also claimed that "50% usage would reduce deaths and injuries by 20%." [Emphasis added]

There is a significant difference between the National Academy of Sciences' conclusion that says "may" and "by up to" and Florida PTA's and Minnesota's claim of "would." This is particularly important since the data used by the National Academy of Sciences were based on adults in the back seat of passenger automobiles, not children in school buses, as discussed earlier. Also, the 1989 data used by the National Academy of Sciences are outdated. The most recent real-world data indicate that at best lap belts would be 5 percent effective in reducing fatalities, but most likely would have no overall effectiveness.

Lap Belt Requirements in New York and New Jersey

Currently, there are two states that require the installation of lap belts in large school buses. New York has required the installation in all new school buses purchased after June 30, 1987. However, New York does not have a law requiring students to use the lap belts. Such requirements are left up to the individual school districts. Recent information provided by New York indicates that only 26 (4 percent) of New York's 709 public school districts have adopted policies which require all students to wear the available lap belts. Those school districts report an estimated 88 percent of elementary, 71 percent of middle, and 47 percent of high school students wear the available lap belts.

New Jersey passed a law in 1992 requiring the installation and use of lap belts in all new large school buses. While there is no official data on lap belt usage, New Jersey estimates that 75 percent of students wear the available lap belts, and that elementary-aged children use them more than high school-aged children.

The National Transportation Safety Board attempted to conduct a study of the effectiveness of lap belts in school buses in New York and New Jersey several years ago, however, the study has not generated any useable information since (thankfully) there have not been any serious crashes of school buses equipped with lap belts. As a result, there is no body of real-world data involving all types of serious school bus crashes that support the position that lap belts provide additional levels of crash safety in the aggregate over the safety provided by "compartmentalization."

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[7] The term "seat belt" on school buses as used by the Florida PTA is interpreted to mean lap belts, since that was the type of belt system considered by the National Academy of Sciences in its study.

Potential Changes to School Bus Passenger Crash Protection

In August 1998, NHTSA announced an extensive 2-year research program to consider improvements to school bus passenger crash protection requirements. In announcing the program, NHTSA reiterated its belief that "compartmentalization" has proven to be an excellent form of child crash protection, but believes it is important to develop the necessary data and science to develop the next generation of passenger crash protection in school buses. The NHTSA research program is designed to determine whether it is technologically feasible and operationally practicable to upgrade the current Federal standards for passenger crash protection in school buses. The research approach is direct – develop data on existing school bus crashes to determine the causes of fatalities and serious injuries; use that data to evaluate existing and alternative passenger crash protection systems in a laboratory test environment; and consider the impact of various passenger crash protection systems on school bus capacity and emergency egress. Based on the results of this research program, the data and science necessary for making informed decisions about the safety of all children in school buses will be available.

The State Directors Association fully supports the NHTSA research program, and notes that it contains much of the content and logic suggested by the Association in July 1998. The State Directors Association has requested that NHTSA expand the scope of its research program to include all sizes of school buses, based on the Association's concerns about the appropriateness of lap belts as a form of crash protection for young children. The State Directors Association maintains its belief that the two most logical options to consider in any research program on the subject of passenger crash protection in school buses are: (1) lap/shoulder belts for all designated seating positions; and (2) upgrades to "compartmentalization."

Lap/Shoulder Belts

As stated earlier, there is unanimity within the motor vehicle safety community that lap/shoulder belts offer superior levels of occupant crash protection over lap belts only. At the current time, there is little, if any, information available on the technological feasibility, operational practicability, potential benefits, and other potential positive and negative concerns associated with the installation of lap/shoulder belts in school buses. The State Directors Association believes it is important to develop as much information as possible on lap/shoulder belts in school buses in the course of the NHTSA research program. This includes assessing engineering issues associated with installing lap/shoulder belts in school buses, given the Federal requirements for "compartmentalization," and whether some of the Federal requirements would have to be eliminated or modified. It also includes an understanding of the potential injury risks to small children from lap/shoulder belts. As discussed earlier, the medical community regularly conducts epidemiological studies of motor vehicle crashes involving children, and such studies may provide important insight into the relative safety of various forms of passenger crash protection in school buses.

The development of a better understanding of the types and causes of injuries occurring to passengers in school buses can not be overstated. This information can only be gathered from medical records, either from the hospital or physician that treated the injured child. Without medical information on the type and severity of injury being suffered by school bus passengers in various types of crashes, it is not possible to properly evaluate the relative benefits of different forms of passenger crash protection in terms of preventing or inflicting injuries to children in school buses. Without data on how and when lap belts, or lap/shoulder belts, or "compartmentalization" either reduce the risk of injury or cause an increased risk of injury to children on school buses, it is inappropriate to suggest changes to current requirements for the crash protection of school bus passengers.

Since it is unrealistic to expect all school bus passengers would wear the lap/shoulder belts, and wear them correctly, it is important to identify potential safety issues to the unrestrained school bus passengers, who may not have the benefits of "compartmentalization" if lap/shoulder belts were installed at all designated seating positions. The State Directors Association does not believe the safety of those children, who either can not or do not want to utilize an available lap/shoulder belt, should be compromised.

Upgraded Compartmentalization

Unlike lap/shoulder belt systems which require school bus passengers to buckle up, "compartmentalization" is a passive passenger protection system. It may be possible to make school buses even safer through improvements in energy-absorbing materials and the use of energy absorbing construction at seating locations.

The Summary and Conclusions section appears at the beginning of this paper.

Issued: January 1999

ral property for property tax
oses. (48-1)

mission bucks project

it sales tax that is scheduled
inset at the end of the year.

e sales tax raises about $4
on a year.

voters approve, the tax
d take effect Jan. 1, 2000,
acing the one now in place
y for improvements at the
s All Seasons Arena. That
tax expires Dec. 31.

e pipeline project must still
ply with the National
ironmental Policy Act.

addition, Canadian officials
expressed concern that a
re in the pipeline could
ad disease from the United
es to Canadian water
use the Lake Sakakawea
r would end up in the Souris
r, which flows north.

What we have been trying to
is that we have addressed
concerns adequately,"
nington said. "We have been
treating the water. We are
fecting it."

ficials from the provinces,
state and the federal levels
th governments will
nine the issue, Lennington

We are getting it to the next
e where the two
rnments are involved,"
nington said.

ate Engineer David
nczynatyk said some
ress has been made with
Canadian governme[redacted]
the two sides disag[redacted]er
the water needs to b[redacted]
ted. He said the Canadians
full treatment of the water

the city of Grand Forks itself, after both were swamped by the flooding Red River two years ago.

The bookstore and arena will be part of a "University Village" development, which could also host other businesses in the future, Baker said.

"If I were a betting man, I would say that there is going to be a lot of money spent on the north side of Grand Forks because of the facilities that you folks hopefully are going to allow to be built there," said Rep. Jim Poolman, R-Grand Forks.

The development has critics, including residents who live near campus. They have sent letters to legislators because they are worried the building could cause traffic and environmental problems.

ASSOCIATED PRESS

UND President **Ken Baker** shows a map of the north part of campus that would have the bookstore and hockey arena.

"We want this to be a village. We don't want this to be a strip mall," Baker said.

Barnes & Noble has proposed to take over UND's student bookstore operation, and build a new store in the development, at a cost of more than $4 million.

The bookseller wants to buy the UND bookstore's existing inventory as part of the deal. The project will also be funded by bookstore reserve money and bonds, which would require legislative approval.

The hockey arena will seat 12,000 people and could host ice shows, National Hockey League preseason games and NCAA Division I hockey tournaments, said Earl Strinden, vice president of UND's alumni foundation.

"This is a rare opportunity for us," Strinden said.

A big concern among lawmakers was the possibility that bars and liquor stores would want to join the development and be near the hockey arena.

"I just think that if that growth is going to happen, let's let the liquor establishments build on private land," said Sen. Bill Bowman, R-Bowman.

Baker said those concerns would be taken seriously.

"We're not going to have bars on every corner and that sort of thing ... because that's not what we're trying to achieve," he said.

The committee took no action on the bills. They are both emergency measures, which means they would go into effect shortly after the governor signs them. A two-thirds vote of both the House and Senate is required to adopt an emergency clause.

The bills are SB2220 and SB2030.

Seat belts in school buses questioned

JOSH HOFFNER
Associated Press

Requiring seat belts in school buses may not be necessary, said legislators who questioned why school districts weren't equipping their buses already.

The North Dakota Jaycees support the legislation, and several members of the volunteer organization spoke to the Senate Education Committee on Wednesday.

"We have, well documented, that seat belts in school buses reduced injuries and fatalities, and the medical industry backs us up," said John Fischer of Fargo, the Jaycees' government affairs manager.

School districts are allowed to buy school buses with seat belts, but no schools require it, said Tom Decker, director of school finance for the state Department of Public Instruction.

'99 Session

Rep. Mike Brandenburg, R-Edgeley, said the school should make the choice. "Right now, if a local school district wants to buy a bus with seat belts, they can do it," he said.

Fischer said bus industry lobbyists have stifled any effort to change seat-belt laws. Buses that come with seat belts cost an additional $1,000, he said.

"The cost is minimal compared to the loss of one precious life in North Dakota," said Lolanda Gorze, a Surrey Jaycee member and mother of two.

But a recent study done by a national education and transportation association disputes the notion that school buses without seat belts are unsafe.

The study was cited in a Jan. 12 memo to state education officials, which said there is no proof that seat belts would solve a safety problem in large school buses.

"In fact, there is a growing concern among safety professionals around the world over the use of lap belts as a form of passenger restraint for young or small children," the memo says.

The Department of Transportation says North Dakota has had only one fatal school bus crash in recent years.

Decker said the legislation could give children another toy to hassle bus drivers and other students.

"Just an example, one of the students' favorite tricks is to buckle the belts across the aisle," he said. "There are additional problems related to management on the bus on part of the driver."

Legislators also were concerned about legal problems for bus drivers and school districts who could get blamed for accidents that involve students not wearing seat belts.

The bill only applies to new school buses. School districts would not be required to install seat belts in buses they already own.

New York and New Jersey are the only states that require seat belts in school buses.

The committee took no action on the measure.

The bill is HB1323.

Supreme Court upholds murder conviction

DALE WETZEL
Associated Press Writer

Jurors had enough evidence to convict a Minot man of manslaughter in a parking lot stabbing, the

vious testimony against him.

Phillip McIalwain was an important witness agai[redacted]gnon when he first went on [redacted]or murder, court records say. [redacted]gnon was convicted, but the Supreme Court later threw out the murder verdict, say-

victed of manslaughter and sentenced to 10 years in prison.

Gagnon and McIalwain had been walking through the parking lot of a Minot bar in March 1995 when they got into an argument with Kevin and Wayne Gieser. A fight

the gesture.

Northwest District Judge Gary Holum conducted [redacted]ing on police efforts to loca[redacted]alwain for the second trial, [redacted]ce William Neumann wrote in the court's unanimous opinion.