

## LEGISLATIVE COUNCIL PANEL ON TRANSPORT

### **Measures to Enhance Safety of Passengers on School Transport Vehicles**

#### **PURPOSE**

This paper presents the findings of the Administration's review of measures to enhance safety of passengers on school transport vehicles and invites Members' comments on the proposed measures.

#### **BACKGROUND**

##### **Overview of the School Transport Fleet**

2. As at end January 2002, there were 4,795 registered school transport vehicles, of which 3,574 were school buses (vehicles which have more than 16 passenger seats) and 1,221 were school private light buses (which are more commonly known as "nanny vans"). While 3,559, or 99.6% of the school buses have endorsements for providing other services, all nanny vans are for school transport services only. Amongst the 1,221 nanny vans, most of them have 12 or 16 passenger seats.

#### **CONSIDERATIONS OF POTENTIAL IMPROVEMENT MEASURES**

3. Compared with other vehicle types, school transport vehicles have a good safety record. Over the last five years, accidents involving school private light buses and school buses on school trips per year represent 0.3% and 0.9% of the total number of accidents involving all vehicles respectively. The number of school children injured in traffic accidents involving school transport vehicles during school trips constituted less than 3% of the total number of rear seat casualties in all vehicles, of which over 99% were slight injuries.

4. Whilst noting the generally satisfactory safety record of school transport vehicles, the Administration sees merit in exploring measures to further enhance the safety of school transport services considering that the passengers of school transport vehicles are mostly young children who may not yet be ready to take good care of themselves, particularly in emergency situations. In this connection, the Administration has reviewed four possible measures, namely –

- (a) the introduction of passenger seat belts;
- (b) the use of safer seats;
- (c) enhanced training and education; and
- (d) compulsory escort service.

Detailed assessment of each measure is set out in the ensuing paragraphs.

### **A. Passenger seat belts**

5. Since October 1983 when the fitting and wearing of seat belt requirements were introduced to the drivers and front seat passengers of private cars, the Administration has been adopting a step-by-step approach in extending the seat belt requirements to other vehicles, or to different seats of a vehicle. At present, the seat belt requirement is compulsory for drivers and front seat passengers of all vehicle types, and rear seat passengers of private cars and taxis. The Administration intends to extend the same requirement to public light bus passengers next year.

6. To determine whether the same requirement should be extended to school transport vehicles, the Administration has taken into account relevant considerations including safety benefits, overseas practices, cost implications, impact on the operation of the school transport trade, and views of the stakeholders. The assessments are provided below -

#### ***Safety benefits***

7. There are on-going debates overseas on the effectiveness of seat belts on school transport vehicles and the findings have been inconclusive. While supporters advocate that seat belts would protect children in accidents, those who are against argue that seat belts would in fact prevent rapid egress from the vehicle in case of an accident, as children may be unable to unfasten their seat belts themselves. Details of the arguments for and against the seat belt requirements are given in **Annex A**.

#### ***Overseas practices on provision of seat belts for school transport vehicles***

8. Overseas practices on the use of seat belts by rear seat passengers on school transport vehicles vary considerably. In most countries including Canada, Singapore, Japan, Denmark and Belgium, there are no specific requirements on the compulsory fitting and use of seat belts in school transport vehicles.

9. In the USA, the fitting of seat belts is mandatory on all newly manufactured smaller school buses though wearing is not mandatory. For large school buses, fitting of seat belts is not required. Instead compartmentalisation, involving installation of strong, well-padded and energy-absorbing seats, is adopted and considered a more effective measure in reducing injuries and fatalities.

10. School minibuses in the UK and New Zealand are required to be fitted with seat belts and passengers in the rear seats must wear seat belts if available. It is also a requirement in the UK that all new buses (other than those designed for urban use with standing passengers) should be fitted with seat belts, though wearing is not mandatory. On the other hand, there is no legal requirement for the fitting of seat belts on large buses including school buses in New Zealand.

### *Impact on the operation of the school transport trade*

#### Responsibility for ensuring seat belts are worn

11. In Hong Kong, our seat belt legislation contains compulsory requirements for both fitting and wearing. It is considered that only when the requirements of fitting and wearing of seat belts are implemented together that the desired safety benefits can be achieved.

12. In extending the seat belt legislation to school transport vehicles, a prime concern is the difficulty for drivers or escorts to ensure that the seat belts are properly worn throughout the journey and consequently who should be held responsible if the seat belts are not worn.

13. At present, compulsory escort service is required for school buses (those with seating capacity of more than 16) serving kindergarten and primary school pupils but not school private light buses (those with seating capacity of 16 or less). If mandatory fitting and wearing of seat belts on school transport vehicles are pursued, compulsory escort service to school private light buses would also be required to assist the pupils in wearing the seat belts. Since it would not be practicable to hold kindergarten and primary school pupils legally responsible for their not wearing seat belts, it may be necessary to impose on the escort a duty to ensure that pupils have the seat belt fastened. However, the school transport trade has expressed serious reservations over this proposal. They suggested instead that more emphasis should be placed on educating students on the proper behaviour on school transport vehicles. Their views are summarised in **Annex B**.

### The “3 for 2” counting rule

14. Under the existing legislation, 3 children aged 3 years or above but each not exceeding a height of 1.3m shall be counted as 2 passengers. If compulsory fitting and wearing of seat belts were to be introduced to school transport vehicles, the present “3 for 2” counting rule would need to be cancelled as each child has to be provided with a seat belt.

### *Cost implications*

15. If compulsory fitting and wearing of seat belts is introduced, the increases in capital outlay for a new school private light bus and a school bus to be equipped with two-point lap belts are estimated to be about \$30,000 and \$0.2-0.3 million respectively. Given that the “3 for 2” rule would have to be cancelled and a compulsory escort service would have to be provided, parents/guardians are estimated to have to pay an extra \$150 to \$225 per month for each child.

### *Parents’/guardians’ views*

16. We have conducted a questionnaire survey on the views of parents/guardians on the cancellation of the “3 for 2” counting rule, provision of seat belts on school transport vehicles and compulsory escorts on school private light buses. A total of 7,705 questionnaires were sent out and we received 4,863 (63%) completed copies from the respondents.

17. From the survey, we noted the following –

- (a) the average monthly spending on school transport services was \$500 for kindergarten pupils, \$320 for primary and \$300 for secondary students;
- (b) a majority of the parents/guardians supported the provision of seat belts (69 - 88%) and cancellation of the “3 for 2” counting rule (54 - 63%); and
- (c) however, only 20 - 37% of these parents/guardians were willing to pay more than \$100 extra each month for the enhanced services.

## *Assessment*

18. Compulsory fitting and wearing of seat belts on school transport vehicles is not common worldwide. Views are also divided over the effectiveness of seat belts on school transport vehicles and the debate is still ongoing. Taking account of the inconclusive findings on the safety benefits, the generally satisfactory safety record of school transport vehicles, and the concerns expressed by the operators, compulsory fitting and wearing of seat belts on school transport vehicles is not recommended at this stage.

### **B. Safer Seats**

19. The concept of compartmentalisation is adopted in the USA and Canada in preference to seat belts on school buses. Compartmentalisation means the provision of strong, well-padded and energy absorbing seats to protect children in the event of a crash. The cost of such installation would vary depending on the level of improvement to be implemented. It is estimated that the cost involved would range from \$5,000 to \$25,000 for nanny vans and \$15,000 to \$60,000 for school buses, with the high side estimates applying to seat strength complying with Economic Commission for Europe standards. In the light of its perceived benefits and the relatively lower cost required, it is recommended to further explore the feasibility of this measure for future enhancement of the safety of school transport vehicles.

20. The Administration is also considering the feasibility of providing a strong and well padded partition in front of the exposed seats which are not protected by seats in front of them (e.g. front row seats of nanny vans/school buses) with reference to overseas standards so as to ensure the safety of the concerned passengers.

### **C. Education and Publicity**

21. To enhance safety of school transport vehicles, driver training and education/publicity are two important aspects that are worthy of consideration. To help improve the safety of school transport vehicles, the trade would be encouraged to arrange more training courses/seminars covering areas of driving, student management, safety awareness, loading and unloading, etc. for upgrading the skills of school bus/private light bus drivers. Views from the trade would be sought in this respect.

22. The Administration also recommends that more focused education should be targeted at school children on safety on school transport vehicles. In this connection, participation of and views from schools and Parents Teachers Associations would be invited.

#### **D. Compulsory Escort Provision**

23. With effect from February 1997, provision of escort service has become a mandatory requirement for school buses serving kindergarten and primary school pupils. In considering the school private light bus operators' concerns about the adverse impact on their competitiveness and survival in the business due to the probable increase in operating cost, the Administration did not impose the requirement on the school private light bus trade at that time.

24. In addition to monitoring the behaviour of students during the trips, escorts can also provide assistance to them whenever necessary such as during boarding and alighting. As recently advised by the trade, escort service is in fact provided on about 90% of the school private light buses carrying kindergarten pupils. With an average monthly salary of \$2,000 for an escort, the additional operating cost per student per month would be around \$100. For the purpose of improving the quality and safety of the service, it is recommended that compulsory escort service should be extended to school private light buses serving kindergarten and primary school pupils.

### **CONCLUSIONS AND RECOMMENDATIONS**

25. To further enhance the service and safety of school transport vehicles, the Administration recommends that the following measures should be pursued -

- (a) similar to school buses, provision of escorts should be made compulsory for school private light buses serving kindergarten and primary school pupils;
- (b) all new school transport vehicles should be provided with proper and well constructed seats according to the specifications to be decided by the Transport Department, with special arrangements for a few exposed seats;
- (c) the Transport Department would liaise with the trade and relevant parties to strengthen driver training and education/publicity; and

- (d) since the effectiveness and benefits versus the risks of wearing of seat belts by children on school transport vehicles are still subject to debate, there is no strong justification to require compulsory fitting and wearing of seat belts on these vehicles at this stage.

The Administration will further consult the school transport trade and the parents/guardians associations in coming up with detailed proposals.

26. The Transport Advisory Committee and the Road Safety Council were briefed on the review findings and consulted on the above proposals. Both organisations supported the recommendations as set out in paragraph 25.

### **ADVICE SOUGHT**

27. Members are invited to comment on the proposed measures to enhance safety of passengers on school transport vehicles.

Transport Bureau  
Government Secretariat  
15 February 2002

**Arguments relating to mandating seat belt provision on school buses**

The major arguments overseas in favour of and against seat belts on school buses are as follows –

**The Pros:**

- (1) Protecting children in an accident: Seat belts will keep children in their seats, and offer superior protection in the event of rollovers, or side impact or angle collision (in contrast to head-on or rear-impact).
- (2) Carryover value: Use of seat belts in school buses will reinforce the educational messages aimed at school-age youngsters and will have a carryover effect of seat belt usage later in their later lives.
- (3) Passenger behaviour: Proper use of seat belts will improve student behaviour on the buses, reduce drivers' distraction, and may reduce the chances of accidents.

**The Cons:**

- (1) Ineffective in catastrophic accidents: Seat belts are of little use in the types of catastrophic accidents – collisions with larger vehicles etc. – that cause deaths or serious injuries to passengers onboard. Seat belts may actually prevent rapid egress from a bus in the case of a bus fire or sinking in a river, lake or other large body of water, as children may be unable to unfasten their seatbelts themselves.
- (2) Not an effective expenditure: The safety record of school buses is already so good that the additional cost per bus to install lap belts could be better spent on other safety measures.
- (3) No guarantee of use: Installing seat belts in a school bus does not mean that students will use them. In addition, it is not possible for the bus driver or escort to monitor the proper fastening and adjustment of seat belts during the whole trip. Improperly adjusted belts can prove hazardous.
- (4) Seat belts cause injuries: Children have been injured by seat belts used as weapons by other students, and by catching their fingers in the buckles or tripping over loose belts.



**Views of the trade on provision of seat belts  
on school transport vehicles**

- (a) The trade expressed concerns about the escorts taking up the responsibility to ensure each and every student onboard is wearing seat belt properly during the trip. It will be very difficult to recruit escorts who are willing to take up the responsibility for the small income involved;
- (b) the risk of children using the belts as weapons to strike another student;
- (c) young children might not be able to release the buckle without assistance. In case of an emergency/accident, such as fire or submersion in water, use of seat belt could hinder evacuation even if an escort is provided;
- (d) after cancelling the “3 for 2” counting rule, the number of school transport vehicles on roads will likely be increased, adding traffic on roads, in particular those in the vicinity of schools;
- (e) increase in boarding and alighting time;
- (f) some parents/guardians could not afford to use the school transport service due to the substantial increase in costs arising from cancellation of the “3 for 2” counting rule and the additional escort services. The service will ultimately serve only the relatively rich group, not the general public. This will pose hardship to the trade also;
- (g) the fact that school trips are usually fairly short and the speed of the vehicle is fairly low renders the use of seat belts not so useful;
- (h) insurance might not cover damages/injuries triggered by the provision/wearing of seat belts; and
- (i) more emphasis should be put on educating students to behave properly on school transport vehicles during the trip.