

Safety Seatbelt Wearing among Vehicle Occupants in Malaysia: Status of 5-years implementation of Rear Seatbelt Regulations

Background

Seatbelt wearing has been one of the proven road safety interventions. It has been found to effectively reduce the number of death and severe injury cases among car occupants by almost 50% for both driver and front passenger (IRCOBI 1986; Evans and Frick 1986). Meanwhile, for rear seatbelt, it has been reported effectively reduced the number of fatalities among rear passenger by 44.0% (Morgan, 1999).

Seatbelt wearing is also the cheapest way to reduce road crash fatalities for car drivers and passengers. Seatbelt wearing as one of the interventions initiated by the government in many countries to reduce death and severely injured cases due to road traffic crashes. Many countries, including Malaysia have enforced safety seatbelt wearing for vehicle occupants.

Seatbelt Wearing Legislation

In Malaysia, wearing safety seatbelt is MANDATORY:

- ⇒ Driver: since 1 Apr 1979
- ⇒ Front passenger: since 1 Apr 1979
- ⇒ Rear passenger: since 1 Jan 2009



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Roadside Observation

The first phase (December 2008) of monitoring was conducted nationwide through observation survey prior to the mandatory use of the rear seatbelt as baseline data. Following that, after the implementation of the respective legislation in January 2009, a nationwide survey was conducted from January to October 2009 to measure the seatbelt wearing rate among vehicle occupants in several states. Further observation was conducted yearly from 2010 onwards.

The data collection was carried out by trained research assistants and was supervised by a research officer. The data collection was done by using covert approach in order to capture the actual behavior of seatbelt wearing among vehicles. Data collectors were stationed at slow traffic area such as junctions, intersections, roundabouts, toll plaza or entry of rest and recreational area (R&R). Apart from that, data collections were conducted during daytime within time periods 9.00am to 5.00pm. Data were recorded manually into a seatbelt wearing observation form. Light-duty vehicles, which included cars, vans, multipurpose vehicles (MPV), and sports utility vehicles (SUV) were selected randomly at each location within a regular interval time. However, taxi and hire car were excluded. Vehicles with heavily tinted windscreen and windows including if the occupant is unable to be seen were excluded.

Seatbelt Wearing Trend

(A) DRIVER AND FRONT PASSENGERS

In 1993, the compliance rate by drivers was 40%. No data was published for front passengers. Ten years later (2003), the compliance rate among driver increased to 76.6% and 56.0% for front passengers. Five years later (2008), the compliance rate further increased to 79.3% and 69.4% for drivers and front passengers respectively. With the continuous and concerted efforts carried out by various agencies, the compliance rate shows further improvement as in Figure 1.

(A) REAR PASSENGERS

A study conducted in 2008 revealed that public will only use rear seatbelt if the law is enforced. The roadside observation confirmed the above statement where in 2008 only 7% rear passenger use seatbelt even though 70% of public have knowledge about the usefulness of seatbelt use. When the law of rear seatbelt use took effect on 1st Jan 2009 the compliance rate jumped up to 38% in January and 47% in February 2009. However, the compliance rate stated to steadily decline the following months until it reach 13.5% at the end of 2009 and remain at low level for the following years as shown in Figure 2.

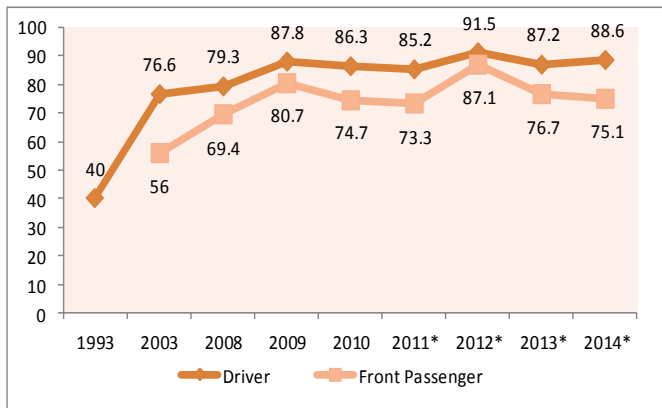


Figure 1: Seat belt wearing rate among driver and front passenger, 1993–2014
Source: Hauswald (1997), Kulanthayan et al. (2004), Malaysian Institute of Road Safety Research (MIROS)
* Observation conducted during OPS Period

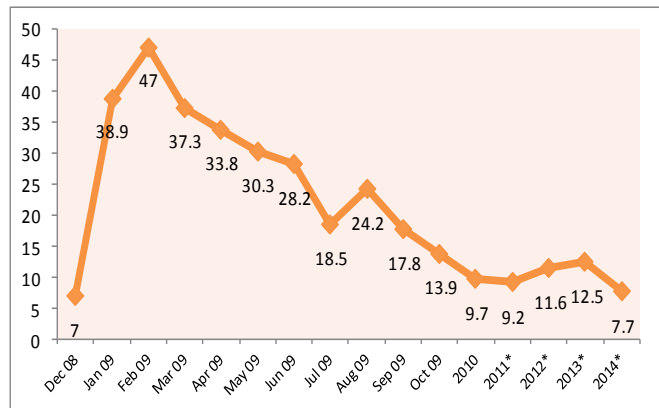


Figure 2: Seat belt wearing rate among rear passengers, 2008 – 2014
Source: Malaysian Institute of Road Safety Research (MIROS)
* Observation conducted during OPS Period

Way Forward

To ensure high safety seatbelt wearing rate, strong political and high commitment would motivate the following:

- ◆ Strict continuous enforcement of the current legislation by the relevant authorities via the 3S concept, that is, sure, swift and severe. To achieve long term effects, continuous enforcement actions concerning seatbelt wearing should be intensive, highly visible and well publicized. It should be conducted predominantly in locations where there is an increased crash risk.
- ◆ Enhanced social marketing focusing on advocacy initiative and community based-program to road users on benefits of seatbelt wearing. Related regulations and information are well-communicated through effective channels and approach such as leaflets and television clips. Campaigns include awareness to the public for law change and providing drivers with information about the consequences of not seatbelt wearing.
- ◆ Emphasize awareness of seatbelt wearing in the Road Safety Education for school children and the driving license curriculum.
- ◆ Ensure seatbelt fitting check as a mandatory item in all vehicle inspections conducted by technical inspection provider.
- ◆ Encourage vehicle manufacturer for installing “seatbelt reminder” for front and rear seats.
- ◆ Encourage implementation of RS Management (ISO 39001:2012) in transportation industry to elevate the awareness of road users.

For more reading;

1. Evans, L & Frick, MC (1986), Safety belt effectiveness in preventing drivers' fatalities versus a number of vehicular, accident, roadway, and environment factors, *J Saf Res*, 17: 143–54.
2. Hauswald, M (1997), Seatbelt use in developing country: convert non-compliance with a primary enforcement law in Malaysia, *Accident Analysis and Prevention Journal*, 29: 695–697.
3. International Research Council on Biomechanics of Injury (1986), *Seatbelt efficiency: paired case study with unbelted and belted occupants*, IRCOBI.
4. Kulanthayan S., Law T.H., Raha, A.R., and Radin Umar R.S (2004), Seatbelt use among car users in Malaysia. *IATSS Research* 28: 19–25.
5. Morgan, C (1999), *Effectiveness of lap/shoulder belts in the back outboard seating position*, NHTSA Report Number DOT HS 808945.
6. Norlen M, Fadhli Y, Noradrenalina I, Ilhamah O, Noor Faradila P & Farah Anida M (2008), Phase I Achievement of first 3-month advocacy program; rear seatbelt use: public awareness and practice, MRR 09/2008, Kuala Lumpur: Malaysian Institute of Road Safety Research.
7. Aimi Mohd Fahmi, Ilhamah Othman, Mohamad Suffian Ahmad, Wahida Ameer Batcha, Norlen Mohamed, (2013) *Chapter of Seatbelt Wearing Among Vehicle Occupants*, Report of Evaluation of the Effectiveness of Ops Selamat CHINESE NEW YEAR 2013 Conducted over the Hari Raya Period from February 3 to February 17 2013, Kuala Lumpur: Malaysian Institute of Road Safety Research. (In Press)
8. Mohamad Suffian Ahmad, Ilhamah Othman, Norlen Mohamed, (2012) *Chapter of The Seatbelt Use Among Vehicle Occupants in Selected Areas in Malaysia*, Report of Evaluation of OPS Chinese New Year 2012: a Comparison with Previous OPS Conducted over the Chinese New Year Period from 16 January 2012 to 30 January 2012
9. Wahida Ameer Batcha & Mohamad Suffian Ahmad (2014) *Chapter of The Seatbelt Use Among Vehicle Occupants*, Report of Evaluation of OPS Chinese New Year 2014 10.Period from 20 January 2014 to 05 February 2014

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