

# **Buckle Up Beaumont: A Seat Belt Education and Enforcement Model for Adults**

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## **Abstract**

The Alberta Occupant Restraint Program (AORP) conducted a one time pilot project aimed at persons over 16 years of age who did not wear seat belts. The pilot project was based on an education and enforcement model where drivers who did not wear a seat belt were given an “Option Four” in addition to the 3 regular options of: 1. paying the fine, 2. pleading not guilty by mail, or 3. go to trial to respond to the charge. That is, once ticketed, the drivers were provided the option to attend an education session and as a result have the ticket recommended for withdrawal. The goal was to increase correct use of passenger restraints, through education and enforcement.

## **Resume**

French Translation required

## **Introduction**

Road safety research has established that the effectiveness of seat belts in preventing death and serious injury to occupants of light-duty motor vehicles involved in potentially fatal collisions ranges, between 39% and 60%, depending upon the vehicle type(s) and size(s) and occupant seating position.<sup>123</sup> Yet motor vehicle collisions continue to be the leading cause of death for Albertans under the age of 30. Despite the evidence, legislation and heightened public awareness and enforcement campaigns, 15.1% of the urban drivers and 23.6% of rural drivers in Alberta (2001) make the choice to “not buckle up”.<sup>4</sup>

The purpose of the study was to determine barriers to increasing the seat belt wearing rate among identified non-users over the age of 16. The overall evaluation question for the pilot project was to determine what it would take to increase restraint wear rate among current “non seat belt users”.

This question was answered by addressing a series of objectives relating to;

- Socio-demographic profile of ticketed adults (non-attendees and attendees),
- Attendee rate for the education session,
- Rationale for attendees and non-attendees choices,
- Factors that impact attendance rate at education sessions,
- Education session impact on attendees,
- Effectiveness of education session to passenger restraint wear rate,
- Effectiveness of education and enforcement model to impact restraint wearing,
- Factors that will influence non-attendee predicted wear rate,
- Predicted future behaviour of attendees and non-attendees.

**Method:** The Alberta Occupant Restraint Program (AORP) conducted a one time pilot project aimed at persons over 16 years of age who did not wear seat belts. The pilot project was based on an education and enforcement model where drivers who did not wear a seat belt were given an “option four” as an alternative to paying the fine. That is, once ticketed, the drivers were provided the option to attend an education session and as a result may have their ticket retracted. The pilot project was carried out as part of RCMP activities during the fall Selective Traffic Enforcement Program (STEP) campaign from September 27th – October 6<sup>th</sup>, 2001 in the town of Beaumont, Alberta. The STEP campaign consisted of 2 weeks of targeted awareness informing the public of the upcoming increased levels of enforcement for occupant restraints. The information provided through the

media provided statistics, facts and figures on life saving benefits of seat belts, current legislation and fines, the consequences of not buckling up and dates for the upcoming program. (Buckle up Beaumont).

Data was gathered at four distinct times during the pilot project. Appropriate measures were taken to ensure that the evaluators were at arms length from the enforcement activities.

1. Baseline data: To gather baseline data of all ticketed adults the evaluators attended two full day safety checks, September 24 and October 4<sup>th</sup>, 2001. Both were held in the town of Beaumont on highway # 814 (50<sup>th</sup> street) in the northbound direction (driving towards Edmonton). The safety checks were conducted between 1030 and 1900. A personal interview was conducted with each person who was stopped as a result of not wearing a seatbelt. Demographic data was collected as well as non-compliance rationale and what would lead the person to change behaviour. Each interviewee was informed of the type of study being conducted, the purpose, and how the data would be used. Each person was also asked if they were willing to participate. At the completion of the survey the respondents were asked to give their name and phone number so a follow up call could be administered. Once again the interviewee had the option of not participating.

2. Education Session Attendee data: An education session was held three weeks following the last safety check on Oct 24, 2001. A survey was prepared to capture data related to rationale for attending and what the participants had learned during the session. Initial plans were to conduct a personal interview with each participant. The response to the session was much larger then expected. In total 90 adults attended the session. It was deemed unsuitable to do in-person interviews, so a self-administered survey was developed based upon the original survey questions. The survey was introduced and each question reviewed and explained by the evaluator at the end of the

education session and anyone who had difficulty completing it was provided assistance.

3. Non-Attendee data: A telephone survey was conducted with all violators who had chosen not to attend the education session. This survey was initiated one week following the last stated court date issued on the tickets. The survey captured information related to rationale for not attending, what factors would have increased their chances for attending, and how potential changes to the fine might influence their future predicted behavior in attending a session.

4. Education Session Attendee 3 month follow-up. Three months following the education session a telephone survey was conducted with violators who had chosen to attend the education session (Option 4). The purpose of the survey was to determine education session's impact on their seat belt wear behaviour.

### **Limitations**

The following limitations should be considered when reviewing the findings:

1. Not all persons who were interviewed were offered Option 4. Initially some officers were not aware that Option 4 was to be extended to all persons charged. In addition, it is the officer's discretion to determine if Option 4 is an appropriate action.

2. Not all seatbelt violators were pulled over for seat belt infractions at all times. As the traffic flow became heavy there were times when all officers and support staff were busy and no additional vehicles were pulled over until an officer was available to respond.

3. The two safety checks were not the only times during the STEP campaign when seat belt violation tickets were issued in Beaumont. In total 221 tickets were issued for seatbelt violation during the two week campaign. Of these, 63 % or 140 were issued during safety checks. All adults were offered option

4, not only those ticketed during safety checks. This resulted in larger than anticipated number of persons attending the education session.

4. Some of the persons interviewed did not understand English. In three of these cases another person in the vehicle translated the questions and answers to complete the survey. The evaluators had no way of ensuring that the data collected was translated correctly.

## Results

The findings presented below are based on the population who were ticketed as part of the safety checks unless otherwise indicated

### Total Population Profile

In total 140 individuals were interviewed during the safety checks. Close to 3/4 (73%) were male and 27% were female. Over 1/3 third (34%) of all respondents were between 25-39 years of age.

The largest proportion of respondent was from Edmonton (46%); another 30 % were from Beaumont and 9% from County of Leduc. These communities were also similarly represented among both non-attendees and attendees.

More than every fifth person (22%) worked in the construction industry. Resource industry made up 14%, and sales and services 11%.

Cars were the most frequently driven vehicles (43%) closely followed by pick up trucks (33%).

### Attendee Profile

Women are much more likely to attend an education session. 27% of the ticketed population was female; half of these (50%) attended the education session.

Those over 50 years of age are more likely to attend an education session. This population made up 16% of the ticketed population and 23% of the education attendee population. Forty percent of this

age group chose to attend the session. The least likely age group to attend a session is persons between 25-39. This population made up 34% of the total population and 23% of the attendee group. Individuals who are retired or do not work in any industry appear to be more likely to attend a session. All retired persons (7) attended the session. Four of the five reporting *no industry* chose to attend the session.

Attendees are more likely to drive cars (64%) than the non-attendee population (37%).

### Non-Attendee Profile

The large majority of non-attendees are male (81%). Eight out of ten ticketed males (80%) do not attend the session.

The non-attendees are also more likely to be 25-39 years of age (38%) as compared to the baseline ticketed population (34%).

Workers from the construction industry are less likely to attend an education session (26% of non-attendees as compared to 13% of attendee). Those reporting to work in an industry labeled as *other* appear to be the least likely to attend a session. Such industries were researchers, professional engineering, manufacturing, accounting, enforcement etc. *Others* made up 17% of baseline data – none of these attended the education session

The non-attendee is more likely to drive a pick up truck (39%) than the attendee population (18%).

### Program Awareness

The initial component of STEP campaigns is aimed at increasing drivers' awareness of the upcoming targeted enforcement of seatbelt use. Two weeks prior to the safety checks both radio and local media campaigns were held focusing on the importance of seatbelt wear. In addition, the recreation centre's billboard was used to announce the campaign.

All respondents were asked if they were aware of the seatbelt campaign called “Buckle up Beaumont”. Every fifth person (20%) indicated awareness of the campaign. Attendees were more likely to have heard about it (23%) as compared to non-attendees (19%).

There appears to be no difference between male and females awareness rate.

## **Pre-education session survey**

### **Seatbelt wear behaviour**

All respondents were asked if they often traveled not wearing a seatbelt. Close to a majority, 45% of the respondents indicated they “*never travel without wearing a seatbelt*”. Nearly 1/3 (32%) of the respondents indicated they *often travel* not wearing a seatbelt whereas 21% *sometime travel* without wearing a seatbelt.

When asked why they “*did not wear their seatbelt today*” the most frequent answer (39%) was they were driving a short distance. Another 24% indicated they never wear it, 9% said they forgot and 28 % gave a variety of other reasons.

Attendees were slightly more likely to indicate they never travel without wearing a seatbelt (48%) as compared to non-attendees (43%). When asked for specific reason for non use both attendees (33%) and non-attendees (41%) indicated they were traveling a short distance. Attendee population (21%) were much more likely to respond that they just “pulled out” and were in the process of putting their seatbelt on as compared to non-attendees (7%).

### **Do seatbelt save lives and reduce injury?**

All respondents were asked to rate, based on their personal perspectives, if seatbelt use saves lives and reduces injury on a scale from 1-5, where 1 indicated *not at all* and 5 indicated *absolutely*. More than one-third of the respondents (37%) indicated seatbelt absolutely saves lives and reduces injury. Another 24% rated the use of seatbelts as a 4. Many of the comments were that they don’t work in all

situations and especially if there are fires or the vehicle rolls into water and flips upside down.

However, two thirds (66%) of the attendee population rate seatbelt use as 4 or 5, whereas 43% of the non-attendees rate it at 3 or lower.

Non-attendees were much more likely to provide comments such as “*it does not work in all types of situations*”, or they knew of someone who had been killed because they did wear their seatbelt.

### **Is seatbelt use associated with a healthy lifestyle?**

When asked if the use of seatbelts can be associated with a healthy life style over half (58%) of the respondents indicated it is. However, every fifth person (21%) does not think there is a relationship between seatbelt use and healthy life style. 17% were not sure and another 4% did not respond.

A larger proportion of non-attendees (60%) indicated that seatbelt use is associated with a healthy lifestyle then attendees (51%). There appears to be a larger segment of the attendees that indicate seatbelts *may be* associated with a healthy lifestyle.

### **What factors would influence/ convince you to wear your seatbelt?**

All respondents were asked to indicate what factors would influence them to such a degree that they change their seatbelt wear behaviour. The factors were related to increased size of fine (\$100, \$150 and \$200) as well as 1, 2 or 3 demerits. They were also asked if attending an education session would have an impact on their behaviour and finally if a close family member or friend was injured or killed not wearing a seatbelt if this would impact their own usage rate.

As can be expected there is a positive correlation between the proportion of people who predict a change in their wear rate and the increase of the fine. However, most respondents do not see education as a means for changing their behaviour.

Comments related to “*I know I should wear it*” are the most frequent rationale for why education

would not change their behaviour. An injury or fatality to a close family member is predicted to have a higher impact on changing their behaviour. Fines do not appear to have any influence on the majority of non-attendees' behaviour until it reaches \$200. Demerits have a direct proportional relationship, with close to 70% of the respondents indicating they would change their seatbelt wear behaviour if the fine included demerits. Education is not deemed effective showing an indirect relationship (less than 37%).

Attendees are highly likely to change their behaviour as a response to any change in fine or demerits. However, education is not predicated to change behaviour. This is similar to the non-attendees predicted behaviour (less than 56%).

When asked which factor would be the most likely to change their behaviour close to half of the respondents (48%) indicated it would be an injury or fatality within the family. Attendees (56%) are most likely to state this as impacting their behaviour.

### **Post-education session surveys**

#### **Non attendee responses**

In total, 101 persons choose not to attend the session. Of these, 64 persons (64%) completed a follow up survey 1 - 6 weeks following their court date. The primary reason (10%) for not completing a survey was that the respondent did not have a phone or that the phone number had changed since they completed the initial survey. For 8% of the respondents no phone number had been collected and 6% had moved since the initial survey.

All of the non-attendees had received their seat belt violation tickets during a safety check. The large majority (81%) indicated they had been offered Option 4. For most of the respondents (77%) this was the first time they received a seatbelt violation. Of those who indicated they had had prior seatbelt violations the number of previous tickets ranged from 1 to 6. The most frequent number of previous violations was 2.

Work was the primary reason for not attending the education session according to over one third (34%) of the non-attendees. Another 24% did not have time and 14% had no interest. Less than 4% suggested they "*know it all*" and therefore didn't need the education and information.

Every fourth person (27%) indicated they would have attended had it been held on a non-working day. However, every fifth person (21%) stated there was not really anything that would make them attend a session.

The respondents were asked how an increase in fine or added demerits would impact their attendance rate at an education session. An increase in fine showed a positive relationship when the fine reached \$200; this is also true for demerits where 80% or more of the respondents indicated they would attend an education session.

#### **Attendee responses**

Of the 39 respondents who attended the education session 36 (92%) completed a follow up call three months later. The focus of the interview was to determine any long-term impact of the education session. The responses were very similar in nature to those provided by the overall attendee population surveyed immediately following the session. This provides additional strength to the validity and confidence level of the findings from the attendee population. These findings are outlined in section 5.9 below.

The primary reason why attendees came to the session was to have their ticket withdrawn. 88% indicated they did not want to pay the fine, 29% wanted to learn more and 8% were curious.

Following the session the large majority (88%) indicated they had learned something new. The components that had the greatest impact were videos and real life pictures. Six respondents mentioned the video of the "Mercedes" rollover. The real life experience provided by the officer was

mentioned by 5 respondents as having the greatest impact.

All respondents indicated that attending the education session had changed their behaviour while driving. Many commented they are much more aware of the importance of using their seatbelt and try to remember it even during short drives. 48% stated they NEVER drive without wearing a seatbelt. An additional 44% state they try their best to wear it all the time but admit they sometimes still forget. Only 4% state they drive without wearing a seatbelt.

18% of the respondents indicated they have had previous tickets for not wearing a seatbelt. All except one had had one previous ticket.

The large majority (96%) indicated that education sessions are a viable way of “convincing” people to always wear their seatbelts. Many added that this type of session should be compulsory before you get your license.

#### **Education session attendees (total Option 4 population)**

In total 90 persons attended the education session. Of these 39 (43%) were ticketed during the safety checks. The remaining 51 persons (57%) received their ticket during regular patrolling.

There appears to be a significant difference in attendee rate between persons ticketed during a safety checks as compared to those ticketed during regular patrolling. 28% of persons ticketed during safety checks attended the education session as compared to 64% of those ticketed during regular patrolling. No socio-demographic data was collected on the population ticketed outside the safety checks. However, as mentioned before the two populations appear to respond similar to education/information according to data collected following the education session.

Enforcement personnel suggested that the discrepancy in response to Option 4 may be a result of how Option 4 is presented. During safety checks

the officers are very busy and rush to respond to vehicles pulled over. The time allotted to “promote” Option 4 is limited. During regular patrolling the officers often take more time to discuss Option 4 and describe or promote the benefits of attending the session.

Close to three quarters of the education session attendees (73%) came because they wanted to save money. 37% indicated they attended the session since they wanted to learn more and another 13% attended due to curiosity.

An overwhelming 92% indicated they learned something new as part of attending the session.

The visual component of the presentation was the most powerful for most attendees (73%). The videos showed during the presentation had the most impact according to 44% of the education session attendees. Another 29% indicated that pictures shown had the most impact. The fact that the presentation is based on “real life” situations was stated by 19% of the respondents as having the most impact.

Nine out ten respondents indicated they would change their behaviour as a result of what they had learned during the session. 86% of these indicated they would “*always wear their seatbelt*” in the future.

Nearly all of the respondents (97%) said the session was worth their time. When asked for suggestions for future improvements to the session 23 persons provided feedback. Of these, TV ads, more pictures and more real life experiences were suggested by 4 people each. Three persons suggested adding demerits.

#### **Conclusions**

Based on the findings presented above the following conclusions can be drawn.

1. Media campaigns associated with STEP raises the awareness among 20% of the nonusers.
2. There is still a perception among non-seatbelt wearers that seatbelts are mostly important when driving longer distances. A large proportion of people who are not wearing seatbelts still perceive that they do. Driving short distances without wearing seatbelts and putting on the seatbelt after the vehicle has started to move is very common. They do not see this as not wearing their seatbelts.
3. There is a core group, made up of young males and professionals who do not believe in wearing their seatbelts and who do not go to education sessions. A third of this population travels frequently without wearing a seatbelt.
4. Most non-users recognize that seatbelt use (sometimes) reduces the risk of injury and fatalities. Attendees already believe in seatbelt use as a way of reducing injury and fatalities as compared to non-attendees. At the same time attendees are more cautious in recognizing seatbelt use as being part of a healthy lifestyle.
5. Education sessions are not viewed as an effective way to change seat belt wear behaviour prior to attending the session. However, after attending an education session ALL respondents indicated the session impacted them to such a degree that they have changed their behaviour.
6. Respondents indicated that an increased fine and introduction of demerits would be the most effective way to change their seat belt wearing behaviour. Furthermore, the large majority of non-attendees indicate they would attend an education session if fines were increased or demerits introduced.
7. Persons ticketed during regular patrolling are more than twice as likely to attend an education session than those ticketed during safety checks. This may be a reflection of the time available and approach used by officers on regular patrol to explain and outline the benefits associated with attending Option 4 sessions as compared to the large safety checks which are less conducive to driver/passenger and officer interaction due to large traffic volume.
8. When nonusers decide to attend an education session it is primarily due to financial considerations. It is important to draw nonusers to the education session since nearly all attendees learn something new, indicated they will always wear their seatbelts in the future and find the session was worth their time.
9. Attending the education session has a long-term impact on respondents. Three months later they can still recall the information and their own response to it. Furthermore, all education session attendees clearly stated that they have changed their driving behaviour as a direct result of attending the session.

## References

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