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Transport
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TP 14848E

**Ergonomics and Crash
Avoidance Division**

TECHNICAL MEMORANDUM

ESC (Electronic Stability Control) Public and Driver Surveys

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TC 1002963



Canada

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1 ABSTRACT

ESC (Electronic Stability Control) is a crash avoidance technology that reduces the likelihood of collisions involving loss of control. Although past and emerging research indicates that ESC is effective in reducing collision rates and saving lives, and its inclusion in all vehicle platforms is encouraged, drivers may demonstrate an over-reliance on ESC that could offset or reduce its overall effectiveness, a phenomenon known as ‘behavioural adaptation’.

Two separate telephone surveys evaluated drivers’ perceptions and awareness of ESC. The first surveyed 500 randomly selected owners/drivers of passenger vehicles. The second surveyed 1017 owners/drivers of 2006-2008 ESC-equipped passenger vehicles. While ESC drivers were much more likely than drivers of other vehicles to be aware of ESC (77% vs. 39%) and whether their own vehicle was ESC-equipped (63% vs. 8%), 23% had never heard of it. Ninety percent of drivers who knew that their vehicle was equipped with ESC believed that ESC had made it safer to drive, and reported being confident that ESC would work in an emergency. Twenty-three percent of ESC owners who knew their vehicle was equipped with ESC reported noticing long-lasting changes in their driving behaviour since they began driving the vehicle.

Collectively, results indicate that Canadian drivers remain largely unaware of ESC and its potential benefits to road safety. Results also suggest that behavioural adaptation to ESC may occur, but will be more likely in certain groups of drivers, including men, younger drivers, and those with less than a university education. If it occurs, behavioural adaptation to ESC will likely be manifest by drivers driving faster, being more likely to drive in adverse weather conditions, driving faster in adverse weather conditions, and driving in a more aggressive manner. While these anticipated changes in driver behaviour are of concern, ESC’s proven effectiveness in reducing the likelihood of being involved in a serious crash outweighs any potential increases in unsafe driving due to behavioural adaptation. Nevertheless, to allow the full intended safety benefits of ESC to reach consumers, vehicle manufacturers are encouraged to market ESC-equipped vehicles in a responsible, safe, and realistic manner. Driver training and safety organizations are also encouraged to provide balanced educational information regarding ESC to their students.

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3 INTRODUCTION

The expression ‘behavioural adaptation’, when used in the context of transportation psychology, describes the collection of behaviours that occur following a change to the road traffic system. Typically, those behaviours that were not intended by the initiators of the change are of particular interest. Their impact on road safety can be positive, negative, or neutral; however, it is the negative consequences that are of primary concern to road safety professionals.

Vehicle skids can be of two types: understeer, where a vehicle continues to travel in one direction despite the steering wheel being sharply turned, and oversteer, where a vehicle rotates more than required by the driver, causing the rear of the vehicle to swerve outwards. ESC (Electronic Stability Control) uses electronic sensors and a microcomputer to continually monitor steering and braking inputs together with wheel rotation, lateral acceleration, and yaw rate. If the sensors determine that a vehicle is becoming unstable by beginning to spin or skid, ESC automatically uses braking at each individual wheel and/or engine power to bring the vehicle back under the driver’s control. Because it intervenes before a loss of control occurs, ESC has the potential to prevent certain types of crash. In particular, ESC should reduce the number of vehicle crashes that involve loss of control and running off the road, including rollover crashes and collisions with fixed objects.

In fact, preliminary analyses of 2000-2005 Canadian collision data indicate that ESC could prevent approximately 30% of all crashes involving loss of control, if all vehicles in Canada were equipped with ESC (Transport Canada, 2007). American data show between a 35% reduction in single vehicle crashes for passenger cars and a 70% reduction for light trucks and vans (LTVs) and sport utility vehicles (SUVs) (Dang, 2004; 2006). Other American studies have estimated a 41% reduction in single vehicle crash risk, a 56% reduction in single vehicle fatal crash risk, and an estimated 34% reduction in overall fatal crash risk (Farmer, 2004; 2006), again with effectiveness estimates for SUVs being higher than for cars (Farmer, 2006). Collectively, these evaluations of collision data indicate that ESC is of significant benefit to road safety.

In Canada in 2006, vehicle crashes involving loss of control resulted in the death of approximately 768 vehicle occupants, as well as causing serious injuries to 2,578 vehicle occupants. While ESC can prevent many types of crashes, it is especially effective in preventing vehicle crashes that result from a loss of control. Transport Canada estimates that there would have been about 225 fewer deaths and 755 fewer people seriously injured on our roads that year if all passenger vehicles had been fitted with ESC (Transport Canada, 2007). Although past and emerging research indicates that ESC is effective in reducing collision rates and saving lives, and its inclusion in new vehicle platforms is being encouraged worldwide (e.g., the ChooseESC! campaign, www.chooseesc.eu), drivers may demonstrate behavioural adaptation to ESC that could offset or reduce its overall effectiveness. The current trend by some auto manufacturers to market or portray ESC-equipped vehicles as being more exciting to drive, or as enabling drivers to drive more aggressively, makes this possibility even more likely. If they are aware of ESC and understand its capabilities, drivers may use ESC’s safety advantages to offset other driving risks. In-vehicle and simulator research on other collision avoidance technologies such as lane departure warnings (Rudin-Brown & Noy, 2002), adaptive cruise control (ACC) (Rudin-Brown & Parker, 2004), and antilock brakes (ABS) (Grant & Smiley, 1993) has demonstrated the

propensity of some drivers to display behavioural adaptation. It follows, then, that some drivers may adapt to the introduction of ESC, which may unnecessarily limit the overall, societal benefits of this technology. For example, drivers of ESC-equipped vehicles may drive faster than conditions allow, follow a lead vehicle more closely, and/or choose to drive in more inclement weather than when driving a vehicle without ESC. Any or all of these adaptations would be expected to attenuate the overall estimated reduction in overall collision risk. Another possibility is that they could induce a migration of collision types from, for example, single vehicle run-off-the-road, to rear-end, collisions. Table 1 outlines some of the possible forms of behavioural adaptation to ESC, and how these may, potentially, be manifest.

Table 1 Potential Manifestations of Behavioural Adaptation to ESC

Form of behavioural adaptation:	Manifestation(s):
Increased speed	More severe impact speeds for collisions with ESC-equipped vehicles as striking vehicle. Increase in number of speeding infractions among drivers of ESC-equipped vehicles.
Increased speed in inclement weather	Decrease in frequency of single-vehicle run-off-the-road collisions for ESC-equipped vehicles is seen only for dry weather conditions. Decrease may disappear or be reduced in rain/snow conditions.
Increased approach speed in curves or when turning corners	No observed change in frequency of run-off-the-road collisions for ESC-equipped vehicles in curves (despite predicted benefits). Increase in loss-of-control collisions for ESC-equipped vehicles at intersections (e.g., colliding with stationary vehicles or objects).
Increased driving in inclement weather conditions	An increase in the number of vehicles on the road in these conditions; therefore, an increase in frequency of collisions (or no overall reduction in collision frequency for ESC-equipped vehicles).
Following a lead vehicle more closely	Increase in rear-end collisions for ESC-equipped vehicles, where ESC-equipped vehicle is striking vehicle.

In February 2006, a public opinion telephone survey was conducted to determine the level of awareness and understanding of ESC in Canada (Rudin-Brown & Burns, 2007). Awareness of ESC was low. Sixty percent of respondents had not heard of ESC, and less than 5% reported owning and driving vehicles that were equipped with ESC. Some people erroneously believed that their vehicle was equipped with ESC when it was not. Transport Canada and other road safety organizations recognize the need to educate Canadians and raise awareness regarding the benefits of ESC. Besides creating a web page and informational brochure dedicated to ESC, Transport Canada officials have been presenting our ESC research and findings to key stakeholders (including provincial / territorial governments, safety organizations, manufacturers, and consumer-focused media), and a promotional campaign for ESC has been developed.

Apart from the 2006 survey (Rudin-Brown & Burns, 2007), there have been no studies that have looked specifically at the potential for ESC to induce behavioural adaptation. Previously, the

telephone survey method was used to assess the propensity of drivers to develop behavioural adaptation to another in-vehicle collision avoidance system, antilock brakes, or ABS (Lee-Gosselin, Fournier, & Béchard, 2000). Introduced in the mid-1980s, ABS help drivers maintain some steering ability and avoid skidding while braking by preventing individual vehicle wheels from locking up. Results from that study demonstrated that many people mistakenly believed that their own vehicle was equipped with ABS when, in fact, it was not. Further, one in five respondents who were aware of whether or not their vehicle was equipped with ABS incorrectly believed that having ABS permits them to drive faster. Fewer than half of the situations identified by respondents as benefiting from the presence of ABS actually were. Finally, and of most concern, three out of four drivers incorrectly believed that ABS provides the driver with more control of their vehicle than conventional braking systems on deformable (snow, slush, gravel) surfaces. In actual fact, with ABS, stopping distances on deformable surfaces are increased significantly compared to conventional brakes. Collectively, the results indicated that conditions existed that would support the development of behavioural adaptation to ABS, at least among those drivers who held inaccurate beliefs regarding the technology.

The main objective of the present studies was to assess whether there is a potential for behavioural adaptation to ESC upon its widespread introduction into the vehicle fleet. A secondary objective of the public survey was to replicate the 2006 survey and to confirm the level of awareness of ESC in Canada. A third purpose of the public survey was to generate a baseline measure of ESC awareness for the future evaluation of a forthcoming ESC promotional campaign scheduled to begin in late 2008. Results will be used to aide in the prediction of the overall safety effects of ESC systems, to make recommendations regarding possible regulatory opportunities (in terms of possible warnings and/or instructions related to ESC), and to educate the public regarding the effects of ESC.

4 METHOD

4.1 Public Opinion Survey

A random-digit-dialled telephone survey was conducted with Canadians aged 16 years and older, who own and drive passenger vehicles. Of the 5,648 telephone numbers initially attempted, 2,186 were invalid, 2,057 were unresolved (e.g., answering machine, no answer, hang-up), and 666 were resolved but not available to participate. Of the 739 people who responded, 233 were disqualified because they did not own or drive a vehicle and 500 completed the interview, for an overall response rate of 21.2%. Survey data was statistically weighted by age within gender and region of residence, to ensure that findings were representative of the Canadian population aged 16 and over. The survey was completed between March 12th and 30th 2008.

The survey instrument contained 28 questions, and took approximately 10 minutes to complete. Besides general demographic, vehicle ownership, and habitual driving data, the survey explored participants' general views and attitudes towards vehicle safety, their awareness of vehicle safety features in general and ESC in particular, their understanding of ESC, the perceived benefits/disadvantages of ESC and, finally, how much they would be willing to spend to have the technology installed on their own vehicle. Questions also assessed how important respondents thought it was for ESC to be installed as standard equipment on all new vehicles sold in Canada, whether respondents thought the presence of ESC on vehicles changed other drivers' behaviour, and whether certain types of vehicles and drivers would benefit more than others from ESC.

The following definition of ESC was provided to respondents mid-way through the interview, when they were first asked whether they were familiar with the technology. The offer to repeat the definition was made later on throughout the survey, and in particular when respondents were asked how they thought ESC might impact people's driving behaviour and driving experience.

“We are interested in knowing your views on a new in-vehicle safety system. The basic mechanics of this system work as follows: A microcomputer in the car constantly monitors the driver's steering and the direction that the car is traveling. In an emergency situation, if the sensors determine that the car is beginning to spin or skid, strategic braking on different wheels is used to bring the car back under the driver's control. Because it intervenes before a loss of control occurs, this safety system has the potential to prevent certain types of crash, such as running off the road, rollover crashes, and collisions with obstacles. The technology is called Electronic Stability Control, or ESC, but may also be known by its many different brand names. For example, for <insert vehicle manufacturer of respondent's vehicle>, it is referred to as <insert ESC name>.”

4.2 ESC Owner/Driver Survey

Telephone interviews were conducted with a random sample of owners/drivers of 2006-2008 model ESC-equipped vehicles in the provinces of Quebec and British Columbia (BC), Canada. Initially, all provinces and territories had been invited to participate in the study; however, the remaining jurisdictions were unable to participate in the study, citing privacy concerns and/or

lack of available resources. British Columbia and Quebec were able to adapt the process in order to participate in the survey, while still protecting the privacy of the participants. Vehicles that had storage insurance, lapsed insurance or were owned by companies were excluded from sampling. The provincial insurance association responsible for driver and vehicle licensing of each province (Insurance Corporation of British Columbia, *Société de l'assurance automobile du Québec*) were each provided with a file of VINs (vehicle identification numbers) that corresponded to 2006-2008 vehicle models where ESC was offered as standard equipment. Using this file, the insurance associations searched their registration databases and identified owners of 2006-2008 model vehicles that were equipped with ESC as standard equipment. Vehicle models where ESC was offered as optional equipment were not included in the search, as ESC is not reliably coded in the VIN. For privacy reasons, the insurance associations did not provide owners' names, addresses and telephone numbers to Transport Canada, but instead mailed participants a letter inviting them to participate in a study on the "experiences and opinions of drivers". Interested recipients were instructed to contact the study coordinator to set up a telephone interview.

In total, 36,000 invitation letters (24,000 Quebec, 12,000 BC) were mailed out. A total of 4,624 ESC drivers responded (3,549 Quebec, 1,075 BC), from which a total of 1,017 surveys were completed (666 Quebec, 351 BC). All surveys were conducted between May 14th and June 1st, 2008. Weighting adjustments, in terms of age within gender and region of residence, were applied to the final data to ensure that it was representative of the Quebec and BC population of owners of 2006-2008 ESC-equipped vehicles.

The ESC Owner/Driver Opinion survey instrument included the same 28 questions as used in the Public Opinion survey, with several additional questions. These additional questions related to whether respondents had specifically looked for ESC when they were purchasing their present vehicle, how important ESC was to their purchase decision, whether they had ever experienced ESC while driving and how they knew it was active, how confident they were that ESC would work in an emergency situation, and how they thought the presence of ESC might change their own—as well as others'—driving behaviour. Respondents in the Public Opinion survey who had reported owning a vehicle that was equipped with ESC were asked the same series of questions as the ESC Owner / Driver Opinion survey.

5 RESULTS—PUBLIC OPINION SURVEY

5.1 General Views about Vehicles and Safety

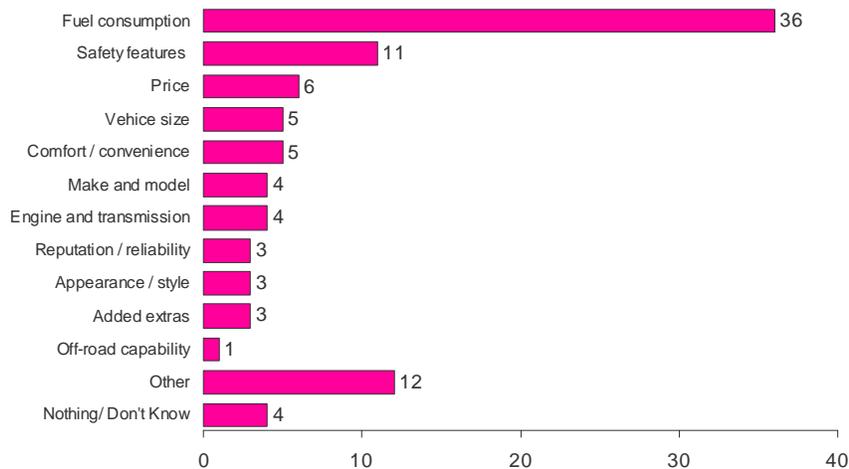
5.1.1 Most Important Feature for New Car Purchase

Fuel consumption is the most important feature that Canadians look for in a new vehicle. More than a third of all Canadians (36%) consider fuel consumption to be the most important feature when deciding what to purchase. This is up 10 percentage points from 2006 when only a quarter (26%) of Canadians thought fuel consumption was most important. Both the result and the increase from previous years is not surprising given the recent increase in gasoline prices.

Fewer Canadians find safety features (11%) most important when purchasing a new vehicle. As we will see later, most believe that vehicles in Canada are safe, which may make safety a less relevant motivator except, perhaps, for the “safety conscious” purchaser. That being said, some groups are more likely to mention safety. For example, women are more likely to find it important (14%) than men (8%)

Other features that Canadians find most important include: price (6%), size (5%) and comfort and convenience (5%).

Figure 1: Most Important Feature for New Vehicle Purchase



Q: If you were to purchase a new car tomorrow, what feature or characteristic would be most important to you when deciding which vehicle to purchase?

Base: Total Canadians (n=500)

2008 TNS Canadian Facts

Table 2: Most Important Feature for New Vehicle Purchase – By Gender and ESC Ownership

	Total Respondents				
	Total	Gender		ESC	
		Male	Female	Owners	Non-owners
Base = actual	(500) %	(238) %	(262) %	(44)* %	(456) %
Important Features					
Fuel consumption	36	37	36	17	38
Safety features that are available	11	8	14	22	10
Price	6	6	7	3	7
Vehicle size	5	4	6	2	5
Comfort and convenience	5	5	5	5	5
Engine and transmission	4	5	4	3	5
Make and model	4	5	3	7	4
All wheel drive	3	4	3	12	3
Added extras (Sound system, GPS)	3	3	2	2	3
Reputation/ reliability	3	3	3	6	2
Appearance/ style	3	2	3	2	3
Performance	2	3	1	2	2
Off-road capability	1	2	1	0	2
Speed and power	1	2	1	5	1
Storage capacity	1	1	1	0	1
Warranty/ service	1	1	1	0	1
Environmentally friendly/ low fuel consumption	1	1	1	0	1
Color	1	1	0	0	1
Air conditioning	1	1	0	3	1
Quality	1	1	0	0	1
Number of seating positions	1	0	1	0	1
Financing	1	1	0	0	1
Other miscellaneous	3	3	2	3	3
Nothing/ Don't know	4	2	5	7	4

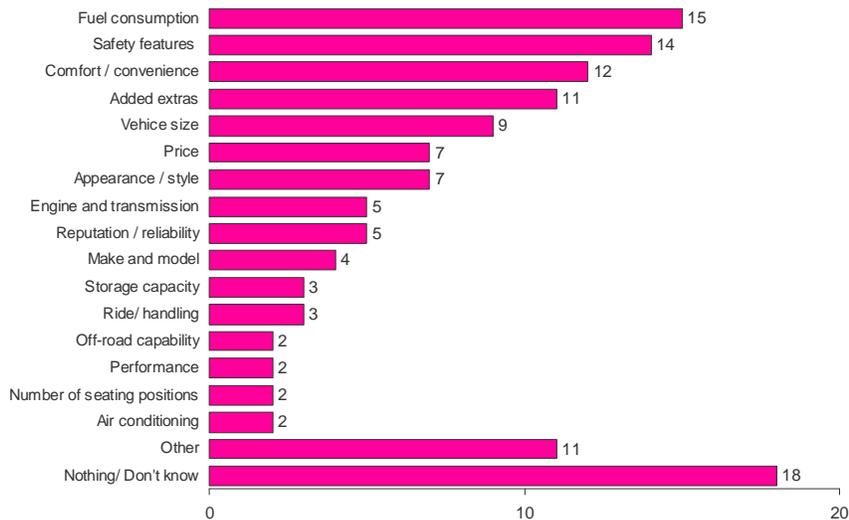
* Figures percentaged on a base of less than 50 should be interpreted with extreme caution

5.1.2 Other Important Features for New Vehicle Purchase

Not only is fuel consumption the most important feature (36%) that Canadians look for in a new vehicle, it also ranks highest when Canadians consider other features that are important (15%). Thus, a total of 51 percent of Canadians cite fuel consumption as one of the top two features when purchasing a new vehicle. Safety features rank second for other, as well as most important, new car feature importance (14%), which brings the overall percentage of Canadians citing safety as one of the top two features to 25%.

Other features that are important to Canadians include: comfort and convenience (12%), added extras such as a GPS (11%), vehicle size (9%) and price (7%).

Figure 2: Other Important Features



Q: What other features or characteristics would be important to you?

Base: Total respondents (n=500)

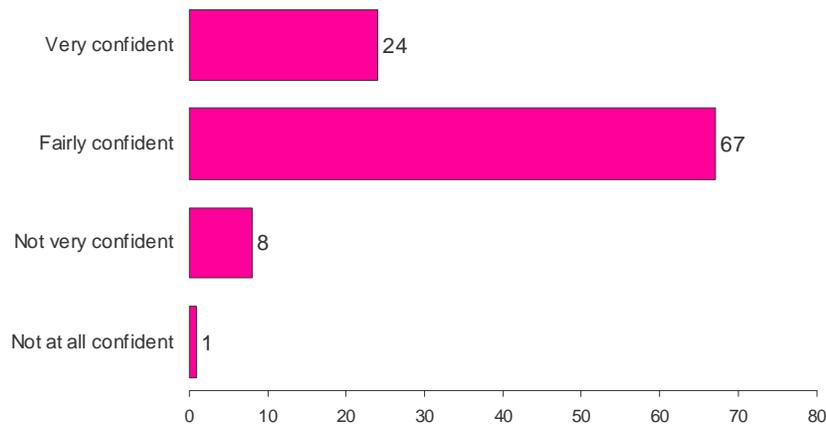
2008 TNS Canadian Facts - Confidential

5.1.3 Level of Confidence in Safety of Vehicles on Canadian Roads

Canadians are more confident¹ in the safety of vehicles on Canadian roads in 2008 (91%) than they were in 2006 (85%).

The level of confidence in the safety of vehicles on Canadian roads is, however, related to demographic characteristics. Those living in the Prairies are more confident (97%) than other Canadians (87-94%) and men are more confident (94%) than women (88%). Additionally, older Canadians (55+) express less confidence in the safety of vehicles on Canadian roads than do younger Canadians (83% vs. 93-100%).

Figure 3. Level of Confidence in Safety Of Vehicles on Canadian Roads



Q: How confident are you in the safety of vehicles on the road in Canada today?

Base: Total Canadians (n=500)

2008 TNS Canadian Facts

¹ (t=2.26 p>0.01)

Table 3: Level of Confidence in Safety of Vehicles on Canadian Roads – By Gender and Age

	Total Respondents						
	Total	Gender		Age			
		Male	Female	16-24	25-34	35-54	55+
Base = actual	(500) %	(238) %	(262) %	(19) ^{***} %	(64) ^{**} %	(246) %	(171) %
Level of Confidence							
Very confident	24	33	15	29	15	27	24
Fairly confident	67	61	73	71	78	66	59
Not very confident	8	5	11	0	7	6	14
Not at all confident	1	0	1	0	0	0	2
Don't know	*	1	*	0	0	1	*

* Less than 0.5%

** Figures percentaged on a base of less than 100 should be interpreted with caution

*** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

Table 4: Level of Confidence in Safety of Vehicles on Canadian Roads – By Region

	Total Respondents					
	Total	Region				
		Atlantic	Quebec	Ontario	Prairies	BC
Base = actual	(500) %	(45) ^{***} %	(84) ^{**} %	(208) %	(100) %	(63) ^{**} %
Level of Confidence						
Very confident	24	32	19	29	19	17
Fairly confident	67	62	68	60	78	75
Not very confident	8	6	11	10	3	6
Not at all confident	1	0	2	0	0	0
Don't know	*	0	0	*	0	2

* Less than 0.5%

** Figures percentaged on a base of less than 100 should be interpreted with caution

*** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

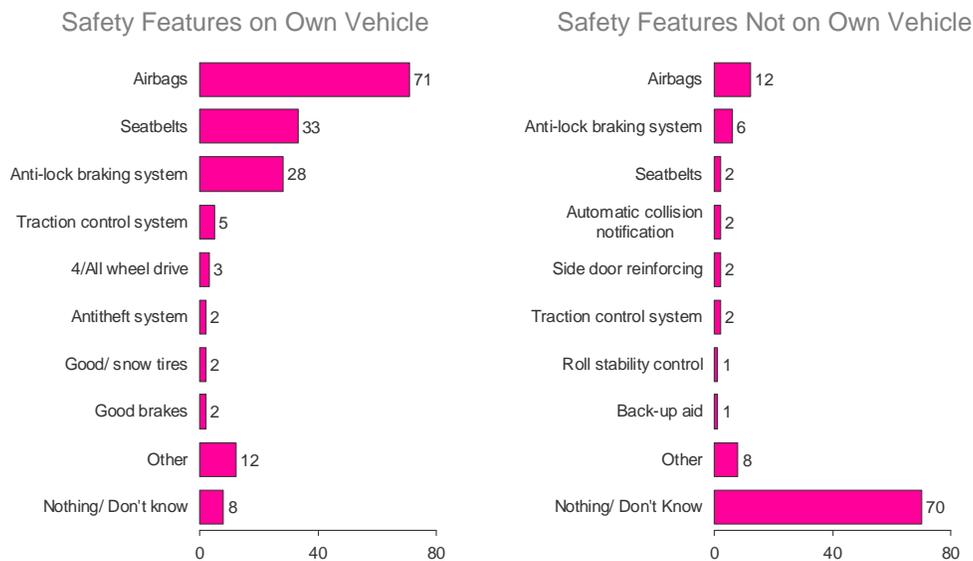
5.1.4 Safety Features

Airbags (71%), seatbelts (33%) and ABS (28%) are the three most common safety features that Canadians recognize on their vehicles. They are also the most common features recalled on others' vehicles (airbags 12%; ABS 6%; and seatbelts 2%). These are currently the top-of-mind differentiators when it comes to safety in the minds of Canadians: a vehicle is "safer" if it has them and less safe if it does not.

While virtually every vehicle in Canada has seatbelts, it is interesting that only a third of Canadians recognize them as a safety feature. Canadians with older vehicles (pre-2000) are less likely to have airbags (58% vs. 77-78%) but are more likely to think of seatbelts as safety features (42% vs. 22-30%) compared to those with more recent vehicles.

Another interesting finding is that few Canadians who believe they have a vehicle with ESC (7%) report this safety feature unprompted, down from 21 per cent in 2006.²

Figure 4. Safety Features



Q: What safety features are on your own vehicle? Can you think of any safety features that are not on your vehicle?
 Base: Total Canadians (n=500)
 2008 TNS Canadian Facts

² Numbers are very low so extreme caution should be used when interpreting this result.

Table 5: Safety Features on Own Vehicle – By Year of Vehicle and ESC Ownership

	Total Respondents					
	Total	Year of Vehicle			ESC	
		07/08	00/06	Pre 2000	Owners ^a	Non-owners
Base = actual	(500) %	(63)* %	(274) %	(157) %	(44)** %	(456) %
Safety feature on vehicle						
Airbag (front and side)	71	78	77	58	71	71
Seatbelts	33	22	30	42	25	34
ABS	28	33	30	22	39	27
Traction control system	5	11	5	3	10	5
All wheel drive	3	15	2	0	9	3
Anti-theft system	2	2	3	2	0	3
Good/ snow tires	2	3	2	3	3	2
Good brakes	2	1	1	2	0	2
Automatic collision notification (On-Star)	1	3	1	0	6	1
Side door reinforcing/ side impact beams	1	0	1	2	0	1
Child seat anchorage	1	2	1	1	3	1
Daytime running lights	1	0	1	0	0	1
Seat belt pretensioners	1	0	1	1	4	0
Automatic locking doors	1	2	1	0	3	0
Electronic Stability Control (ESC)	1	2	1	0	7	0
Other miscellaneous	6	13	5	4	17	5
Nothing/ Don't know	8	3	8	11	7	8

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

^a Based on self-identified ESC owners, which is susceptible to error.

5.1.5 Attitudes Toward Vehicle Safety Improvements and Features

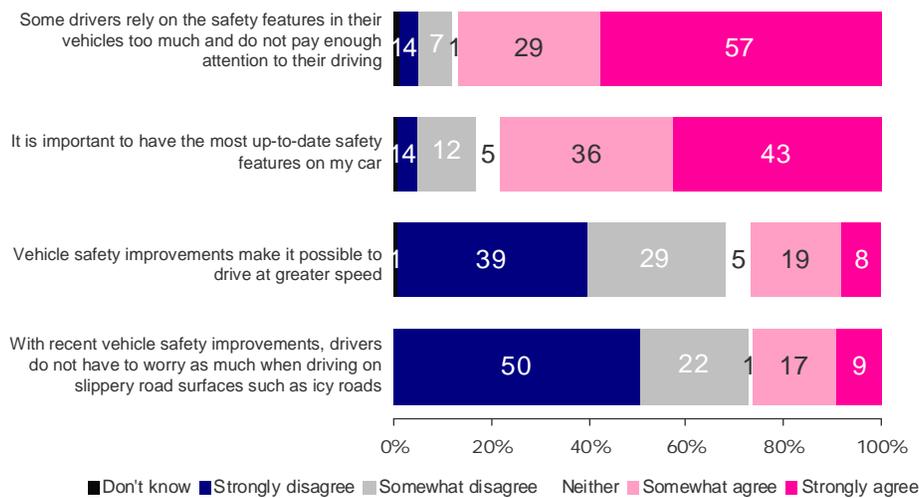
Few Canadians (26%) believe that safety features have any impact on driving conditions though many (86%) do believe that Canadian drivers rely too heavily on vehicle safety features. More specifically, 68 per cent do not believe safety improvements make it possible to drive at greater speeds and 72 per cent do not believe they have an impact on driving in slippery conditions such as ice.

Demographics play a role on the perceived impact of safety features on driving behaviour. Men are more likely than women to believe that safety improvements allow for driving at higher speeds (36% vs. 18%) and younger drivers (16-24) are more likely than older drivers (25+) to believe that safety improvements allow drivers to worry less in slippery conditions (50% vs. 23-28%).

ESC drivers are more likely than drivers whose vehicles are not equipped with ESC to think they can drive faster (53% vs. 24%) and worry less (41% vs. 25%).

Many Canadians (79%) believe that it is important to have the most up-to-date safety features on their vehicle, an interesting contrast given that few believe they impact driving conditions and many believe they have an adverse effect on driver behaviour. Interestingly, those from Quebec are much less likely than drivers from other provinces to find up-to-date safety features important (65% vs. 81-90%).

Figure 5. Attitudes Toward Vehicle Safety Improvements and Features



Q: I am now going to read you a list of statements that other people have made about safety features in vehicles. Please let me know the extent to which you agree or disagree with each statement.
 Base: Total Canadians (n=500)
 2008 TNS Canadian Facts

Table 6: Attitudes Toward Vehicle Safety Improvements– By Gender and Age

	Total Respondents						
	Total	Gender		Age			
		Male	Female	16-24	25-34	35-54	55+
Base = actual	(500) %	(238) %	(262) %	(19)** %	(64)* %	(246) %	(171) %
% Net strongly/ somewhat agree							
Some drivers rely on the safety features in their vehicles too much and do not pay enough attention to their driving	86	87	85	87	93	86	82
It is important to have the most up-to-date safety features on my car	79	78	81	74	75	75	89
Vehicle safety improvements make it possible to drive at greater speed	26	36	18	37	27	24	27
With recent vehicle safety improvements, drivers do not have to worry as much when driving on slippery road surfaces such as icy roads	26	30	23	50	23	23	28

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

Table 7: Attitudes Toward Vehicle Safety Improvements– By Region and ESC Ownership

	Total Respondents							
	Total	Region					ESC	
		Atlantic	Quebec	Ontario	Prairies	BC	Owners	Non-owners
Base = actual	(500) %	(45)** %	(84)* %	(208) %	(100) %	(63)* %	(44)** %	(456) %
% Net strongly/ somewhat agree								
Some drivers rely on the safety features in their vehicles too much and do not pay enough attention to their driving	86	87	84	85	88	91	78	87
It is important to have the most up-to-date safety features on my car	79	90	65	81	84	89	88	78
Vehicle safety improvements make it possible to drive at greater speed	26	24	16	31	32	28	53	24
With recent vehicle safety improvements, drivers do not have to worry as much when driving on slippery road surfaces such as icy roads	26	37	26	21	28	33	41	25

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

5.2 Electronic Stability Control (ESC)

5.2.1 ESC Awareness and Usage

ESC awareness is relatively unchanged since 2006 and remains low. While 40 per cent of Canadian drivers were aware of ESC in 2006, 39 per cent are aware in 2008.

- Awareness is significantly lower in Quebec than in any other region (26% vs. 45-50%).
- Men are more likely than women to be aware of ESC technology (55% vs. 29%).

While awareness is unchanged since 2006, a small but significant increase in the incidence of Canadian drivers' recognition of having ESC on their vehicle occurred (from 5% in 2006 to about 8% in 2008).

Not surprisingly, people with recent model vehicles are more likely than owners of older vehicles to think that their vehicle is equipped with ESC. More specifically, 22 per cent of owners reported owning a 2007 or 2008 model vehicle that was equipped with ESC, while only seven per cent of vehicles manufactured between 2000 and 2006, and only two per cent of those built before 2000, were reported to be equipped with ESC technology.

It should be noted that many people in the Public Survey (at least 17 out of 43) incorrectly believed that their vehicle is equipped with ESC. Section IV of this report details the findings of a comprehensive survey of owners of recent model vehicles that were equipped with ESC as standard equipment.

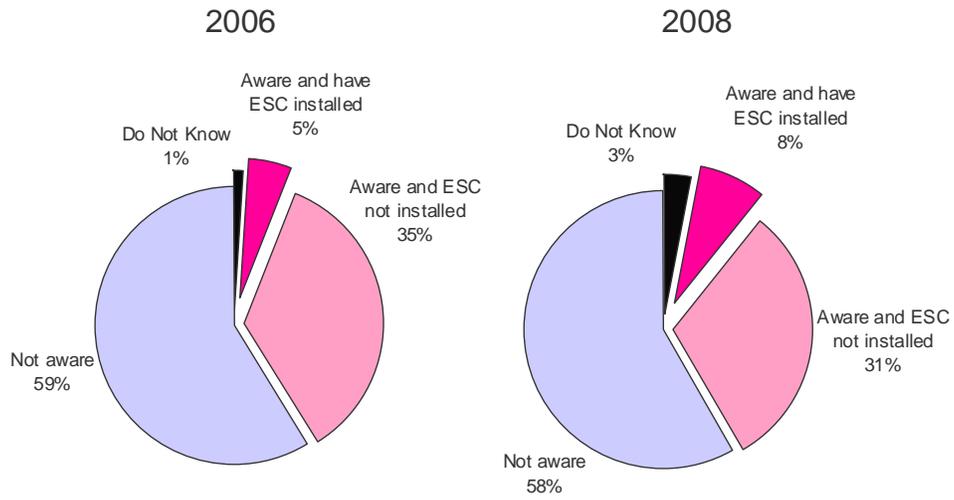
Description of ESC:

A microcomputer in the car constantly monitors the driver's steering and the direction that the car is traveling.

In an emergency situation, if the sensors determine that the car is beginning to spin or skid, strategic braking on different wheels is used to bring the car back under the driver's control.

Since it intervenes before a loss of control occurs, this safety system has the potential to prevent certain types of crash, such as running off the road, rollover crashes, and collisions with obstacles.

Figure 6. ESC Awareness / Installed



Base: All Canadians. Calculated.

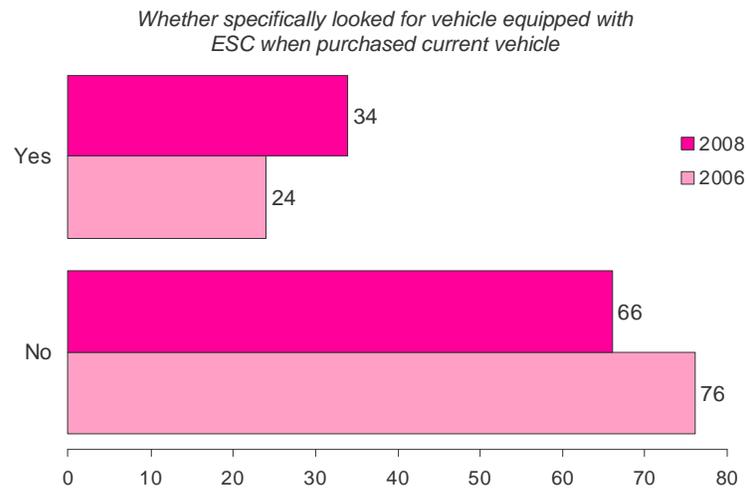
2008 TNS Canadian Facts

5.2.2 ESC and Purchasing

Over one-third (34%) of ESC users intentionally looked for ESC when shopping for their current vehicle, an increase of 10% from 2006. Those in Quebec (60%) and Ontario (46%) were more likely to specifically look for ESC compared to other Canadians (0-16%). As well, as drivers' education level increases, so does the likelihood of specifically having looked for ESC.

Close to two-thirds (63%) of Canadians consider ESC to be important to the overall purchasing decision, demonstrating its considerable potential in the market for uptake. Compared to drivers from other regions, those from BC find ESC least important to the purchasing decision (27% vs. 63-100%).

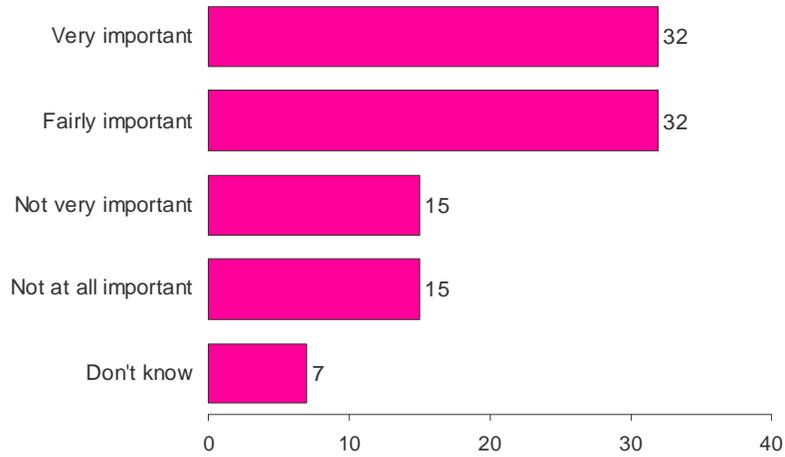
Figure 7. ESC and Purchasing



Q: When you were looking to purchase your present vehicle, did you specifically look for a vehicle that came equipped with Electronic Stability Control or ESC Technology?
 Base: Total Canadians with ESC installed on vehicle 2008 (n=44)/ 2006 (n=54)

2008 TNS Canadian Facts

Figure 8. Importance of ESC to Purchase Decision



Q: Compared to other aspects of the purchasing decision, how important was it to have ESC technology available on this vehicle?

Base: Total Canadians with ESC installed on vehicle 2008 (n=44)

2008 TNS Canadian Facts

5.2.3 Experienced ESC While Driving

Sixty-three per cent of ESC drivers³ have experienced ESC while driving. Though up slightly from 2006, when only 51% of drivers reported having experienced ESC, it is difficult to determine whether, in the present study, drivers are more reckless and thus ESC is engaging more often than in 2006, or if drivers are more aware of when ESC is engaging.

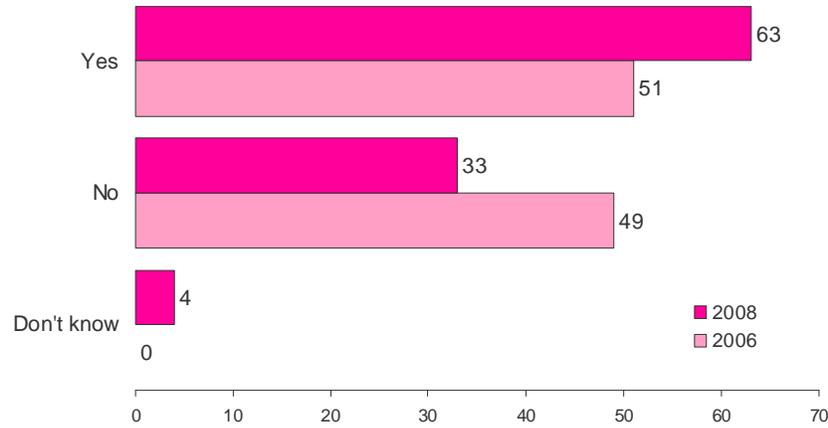
Indications of ESC being activated included:

- An indication or light appeared on the dashboard (37%)
- Driver's awareness of it working or "kicking in" while on ice, when the car went off the road or onto the shoulder (38%)
- The vehicle returned to the road (15%)
- The driver could feel the braking occurring (12%)
- The driver could feel changes in the brake pedal (i.e., pulsating or vibrating) (11%)
- The driver could "feel" it being engaged (10%)
- The car slowed down (8%)
- An alarm/indicator sound goes off (3%)
- Other (6%)

Compared to 2006, many more drivers experience ESC through obtaining more control of their vehicle when driving (53% vs. 18%) and fewer are being informed of ESC activation via the dashboard (37% vs. 46%) or sound systems (3% vs. 11%). The previous findings can be viewed as indication that consumers understand ESC more fully today than in the past; however, the numbers of respondents (N=26) is quite small so caution should be used when interpreting these results.

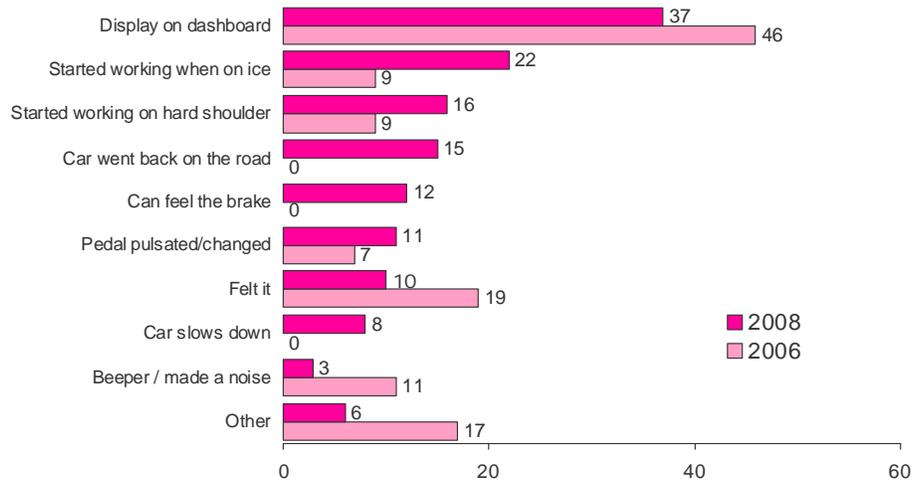
³ For the purposes of the general public survey, ESC drivers are those who believe that ESC is installed on their vehicle. This has not been validated and is based only on self-reports.

Figure 9. Experienced ESC While Driving?



Q: Have you ever experienced ESC while driving?
 Base: Total Canadians with ESC installed on vehicle 2008 (n=44) / 2006 (n=54)
 2008 TNS Canadian Facts

Figure 10. How They Knew ESC Was Active



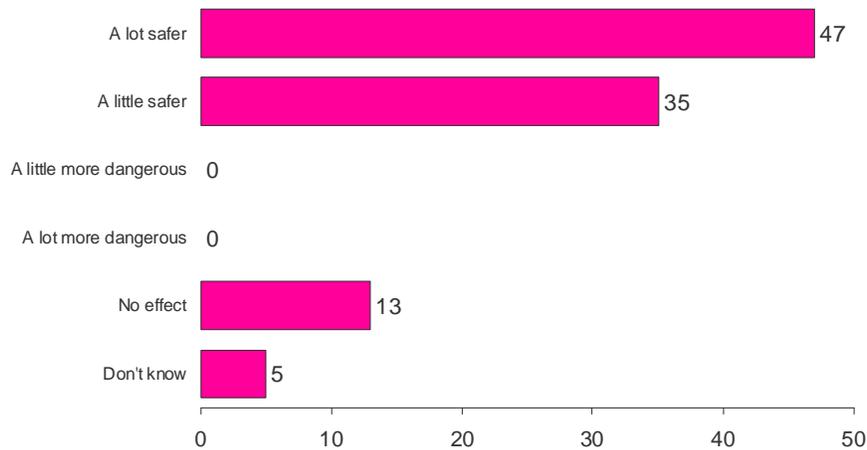
Q: How did you know it was active?
 Base: Total Canadians who experience ESC 2008 (n=26) / 2006 (n=28)
 2008 TNS Canadian Facts

5.3 Attitudes Towards ESC and Safety

5.3.1 Effect of ESC on Driving

Most ESC drivers (82%) believe that ESC technology makes their vehicles safer to drive. No ESC driver believes it makes its more dangerous; however, a small portion (13%) believes it is irrelevant, as it has no effect on safety.

Figure 11. Whether ESC Has Made Driving Safer or More Dangerous



Q: Overall, would you say that the ESC technology installed on your vehicle has made it a lot safer to drive your vehicle, a little safer to drive, a little more dangerous to drive or a lot more dangerous to drive?

Base: Total Canadians with ESC on own vehicle (n=44)

2008 TNS Canadian Facts

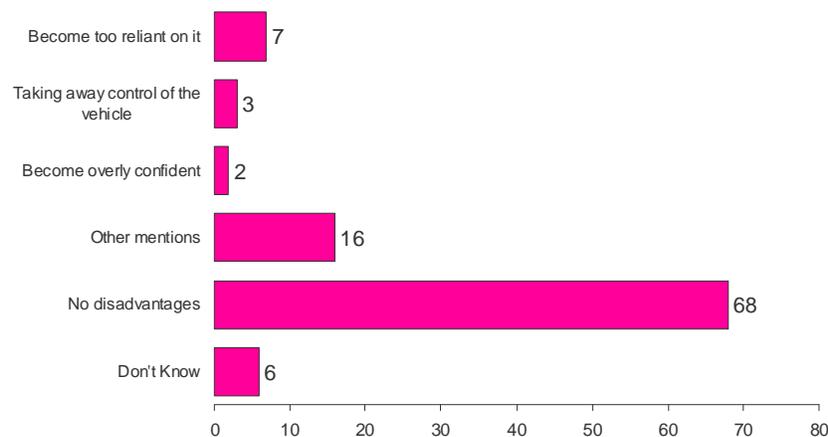
5.3.2 Disadvantages of ESC

5.3.2.1 For those who have ESC Installed

Most ESC (68%) drivers do not believe there are disadvantages to having ESC installed on their vehicle. The perceived disadvantages are:

- The driver may become dependent or reliant on the technology (7%)
- ESC may take away control of the vehicle from the driver (3%)
- The driver may become overly confident and increase their risk-taking (2%)

Figure 12. Disadvantages of ESC – ESC Owners



Q: Are there any disadvantages of ESC? If so, what are they?
 Base: Total Canadians with ESC on own vehicle (n=44)

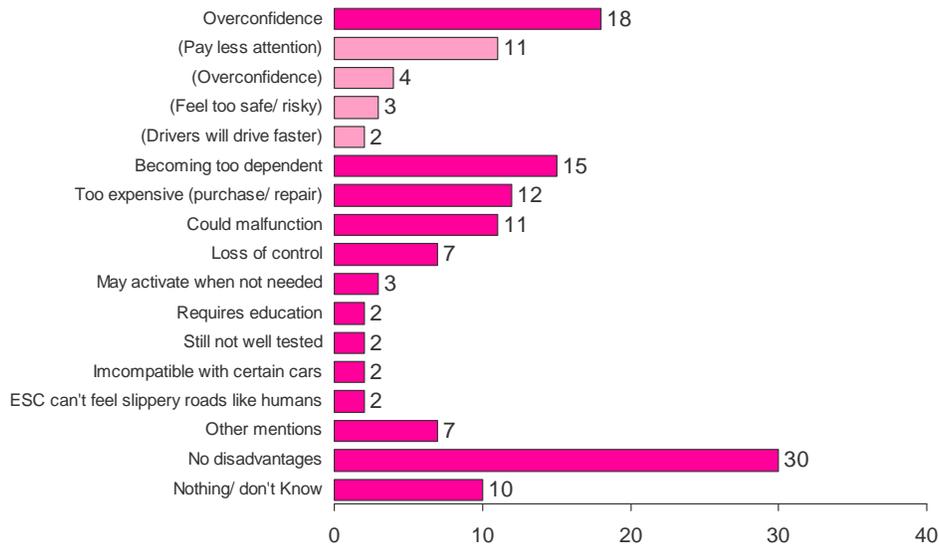
2008 TNS Canadian Facts

5.3.2.2 *For those who do not have ESC installed*

Fewer non-ESC owners (30%) than owners (68%) believe there are no disadvantages to ESC. Non-owners cite similar disadvantages to owners but also a few additional disadvantages. Disadvantages include:

- Overconfidence in the driver (18%)
- Driver dependency (15%)
- Cost to purchase or maintain ESC (12%)
- Possible malfunction of ESC (11%)
- Loss of control by the driver (7%)

Figure 13. Disadvantages of ESC – ESC Non-Owners



Q: Are there any disadvantages of ESC? If so, what are they?

Base: Total Canadians without ESC on own vehicle (n=456)

2008 TNS Canadian Facts

5.3.3 Benefits of ESC Technology

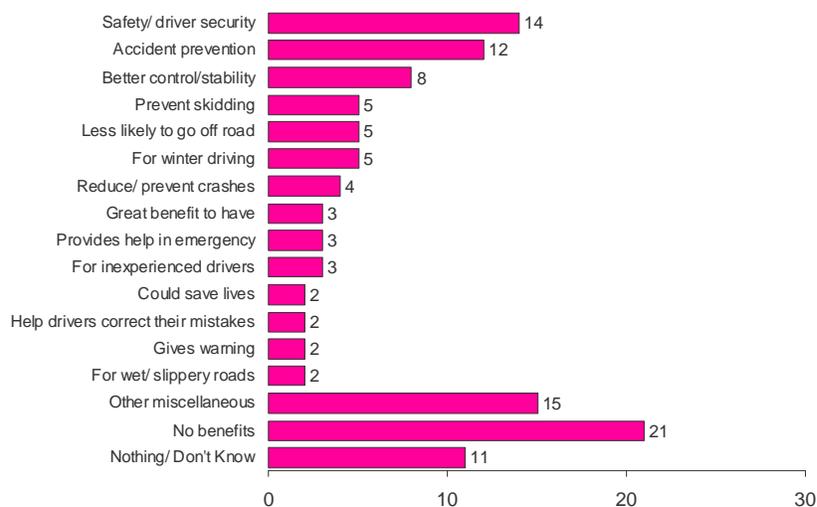
Few non-ESC owners (21%) believe there are no benefits of having ESC on their vehicle. The most common benefits given for having ESC equipped are as follows:

- Safety and driver security (14%)
- Accident reduction and prevention (12%)
- Better driver control and stability (8%)
- Prevention of skidding and slipping (5%)
- Reduced likelihood of going off the road or into the ditch (5%)
- Winter driving or icy roads (5%)

The perceived benefits of ESC vary by both region and gender:

- Those from the Prairies are more likely to believe driver safety and security are a benefit than other drivers (20% vs. 3-16%)
- Atlantic Canadians are more likely than those from other regions to think ESC will bring the benefits of better control and stability (21% vs. 11-6%)
- Drivers from BC are more likely than drivers from other regions to think ESC will reduce the likelihood of going off the road or into a ditch (16% vs. 2-4%)
- Men are more likely than women to believe ESC brings driver safety and security (18% vs. 11%), while women are more likely than men to think ESC will reduce accidents (15% vs. 8%)

Figure 14. Benefits of Having ESC



Q: What do you feel would be the benefits of having ESC technology installed on your vehicle?

Base: Total Canadians without ESC on own vehicle (n=456)

2008 TNS Canadian Facts

Table 8: Benefits of ESC Technology – By Gender and Region

	Total Respondents without ESC on vehicle							
	Total	Gender		Region				
		Male	Female	Atlantic	Quebec	Ontario	Prairies	BC
Base = actual	(456) %	(209) %	(247) %	(44)** %	(79)* %	(188) %	(88) %	(57)* %
Benefits of ESC								
Safety/ driver security	14	18	11	3	16	14	20	11
Fewer accidents/ accident prevention	12	8	15	7	9	15	16	6
Better driver control/ stability	8	8	8	21	6	6	8	11
Prevent skidding/ slipping	5	7	4	6	7	4	5	7
Less likely to go off the road	5	3	7	4	3	4	2	16
For winter driving/ icy/ snowy roads	5	2	7	1	3	6	3	7
Reduce/ prevent crashes	4	3	5	3	0	4	4	12
Good to have/ helpful (unspecified)	3	5	2	3	3	3	3	6
Provide help/ control in an emergency	3	4	3	0	3	3	4	2
For inexperienced drivers	3	1	4	0	0	3	2	10
For those who fall asleep	3	3	2	1	0	4	4	4
Could save lives	2	3	1	1	1	2	7	2
Help drivers by correcting their mistakes	2	3	1	3	4	1	3	0
Gives you a warning	2	1	3	0	1	3	1	1
For wet/ slippery roads	2	2	2	0	0	2	5	1
For bad weather driving (general)	1	2	1	0	0	2	2	1
Extra precautionary feature	1	2	1	0	5	0	0	0
For poor road conditions	1	1	1	0	0	0	3	2
Increased driver confidence	1	1	1	0	0	2	1	0
For those who drive too fast	1	1	1	0	0	2	1	0
Faster to react than human reflex	1	1	0	0	1	1	1	0
For sudden braking/ acts like ABS braking	1	0	1	0	1	1	1	0
Miscellaneous all other positive mentions	3	4	2	3	3	5	1	4
Neutral mentions	1	1	1	3	1	1	1	1
Not much/ limited benefits	1	1	1	3	1	0	0	0
No benefits	21	22	20	29	27	23	10	12
Nothing/ Don't know	11	8	12	7	14	10	11	8

- Not all benefits shown. For benefits with less than 0.5%, please refer to detailed tables.

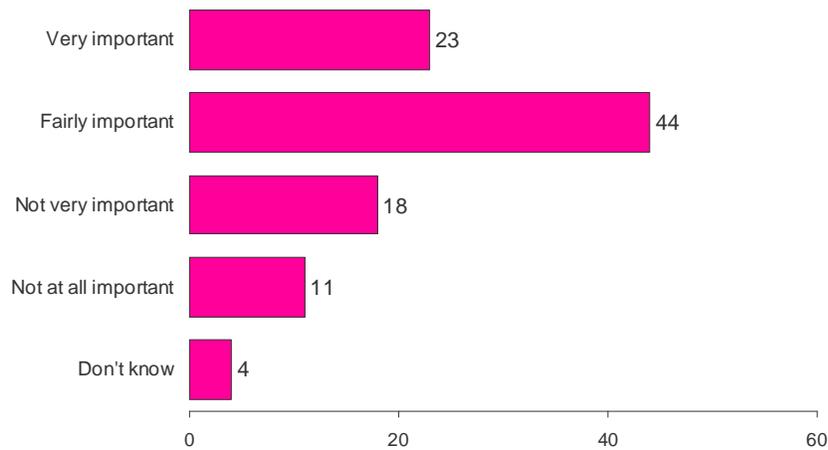
* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

5.3.4 Importance of ESC as Standard Equipment

Similar to 2006, most Canadian drivers (67%) believe that it is important to have ESC installed as standard equipment on all new vehicles in Canada. This is especially true for older (55+) drivers (77%) and younger (16-24) drivers (72%).

Figure 15. Importance of ESC as Standard Equipment



Q: How important do you feel it is to have ESC installed as standard equipment on all new vehicles sold in Canada today?
 Base: Total Canadians (n=500)
 2008 TNS Canadian Facts

Table 9: Importance of ESC as Standard Equipment – By Age

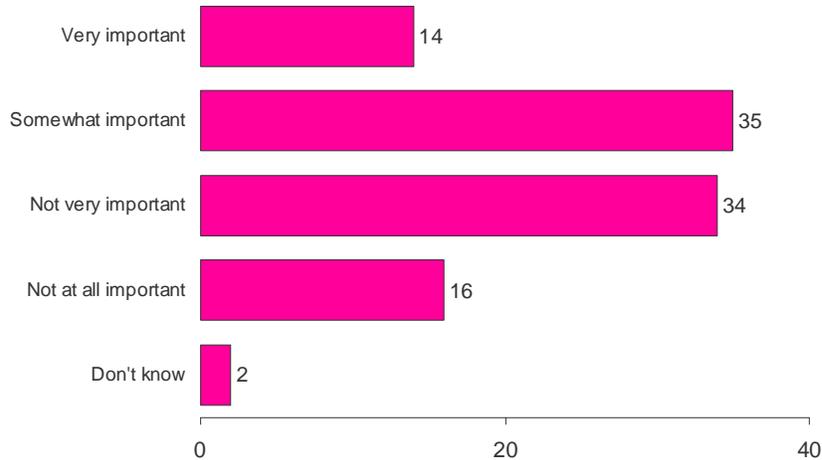
	Total Respondents				
	Total	Age			
		16-24	25-34	35-54	55+
Base = actual	(500) %	(19)** %	(64)* %	(246) %	(171) %
Importance of ESC as Standard Equipment					
Very important	23	11	5	22	40
Fairly important	44	61	52	42	37
Not very important	18	17	20	20	13
Not at all important	11	7	15	13	7
Don't know	4	4	8	3	3

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

Canadian drivers who are likely to purchase a new vehicle within the next year are generally divided when it comes to the importance of buying a vehicle that is equipped with ESC. Indeed, while half (49%) of Canadian drivers believe it is important to have ESC on their new vehicles, the other half (50%) does not consider it to be an important feature.

Figure 16. Importance of ESC Installed on New Vehicle



Q: How important would it be to have ESC technology installed on the vehicle?

Base: Total Canadians likely to purchase new vehicle (n=133)

2008 TNS Canadian Facts

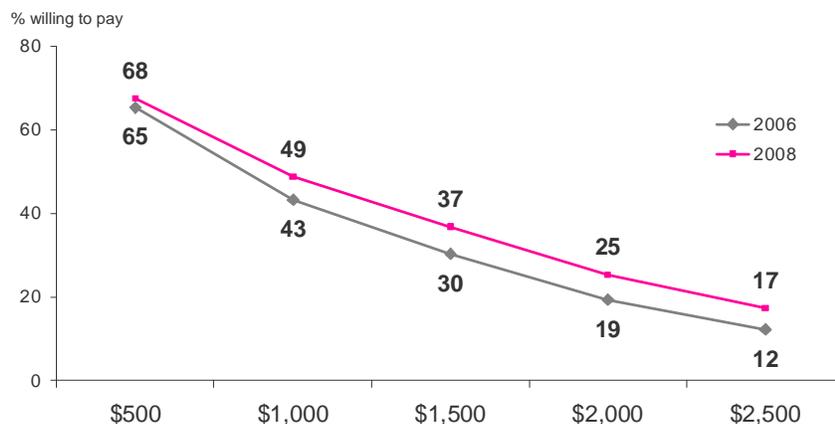
5.3.5 Amount Willing to Pay to Have ESC Installed

One way to look at acceptable prices for a product is to consider the proportion of Canadians that are not deterred from purchasing at each price point. This approach involves asking buyers to evaluate several different price points and indicate if they are willing to pay the amount in question. This approach is known as a demand curve.

A demand curve works by taking five price points and randomly assigning a starting point to each respondent. The respondent is then asked if they are willing to pay a certain amount. If the respondent indicates “Yes they are willing to pay” they are then asked about an increased amount until they reach the ceiling amount. The same holds true if the respondent says “No”, however, they are asked about a lower amount until they reach the floor amount. The responses are then analyzed and the demand curve is represented graphically as a cumulative distribution of the willingness to pay for the safety technology at different price levels.

A third (32%) of all Canadians are not willing to pay even \$500 to have ESC installed on their vehicle. Most are willing to pay \$500 (68%) while few Canadians (17-37%) are willing to spend \$1,500 or more.

Figure 17. Amount Willing To Pay to Have ESC Installed



Q: If ESC was available on the next car you purchase, would you be willing to pay... to have this technology installed?

Base: Total Canadians likely to purchase new vehicle 2008 (n=133)/ 2006 (n=259)

2008 TNS Canadian Facts

5.3.6 Impact of ESC on Driving Behaviour

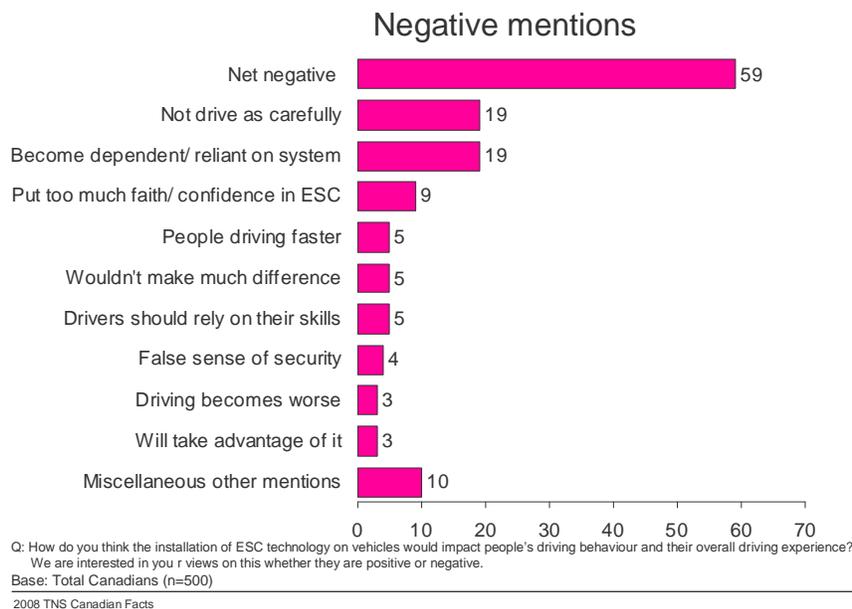
Similar to 2006, the majority (59%) of Canadian drivers believe that ESC may have some negative impacts on driving behaviour and drivers' overall driving experience. At the same time, 41 percent generated positive examples of ESC's potential impact on these variables (see Section 4.3.6.2).

5.3.6.1 Negative

Negative impacts of ESC that are of concern to drivers include that it:

- Encourages drivers to drive less carefully/responsibly or to not pay enough attention (19%)
- Encourages reliance and dependence on the system (19%)
- Increases driver confidence (9%)
- Encourages drivers to driver faster (5%)
- Allows a false sense of security (4%)

Figure 18. Impact of ESC on Driving Behaviour and Experience

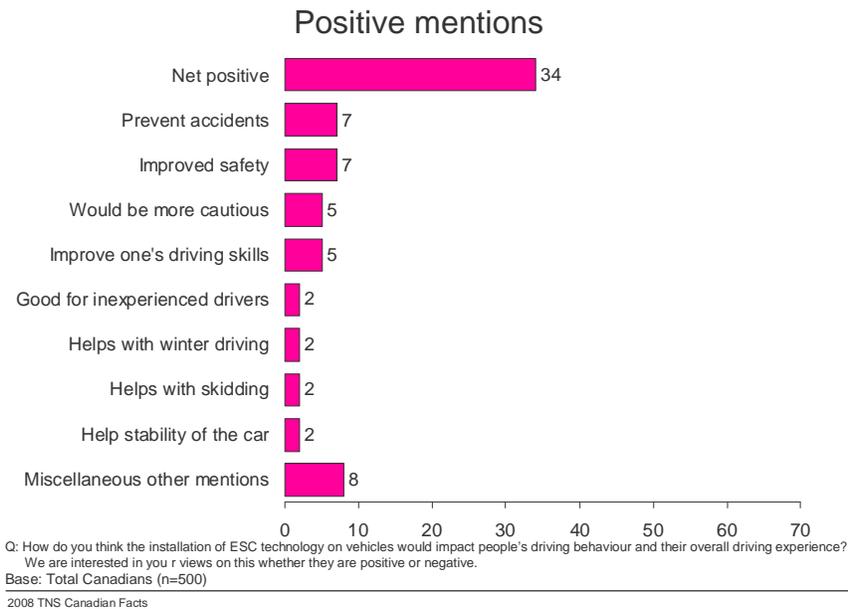


5.3.6.2 *Positive*

Positive impacts of ESC technology that were identified include:

- Accident prevention (7%)
- Improved safety (7%)
- Increased caution by drivers (5%)
- Improved driving skills (5%)

Figure 19. Impact of ESC on Driving Behaviour and Experience



5.3.7 Effect of ESC

As in 2006, there is still a clear lack of understanding around ESC technology and the benefits that ESC can provide. This is even more so for those who do not drive a vehicle that is equipped with ESC technology.

Generally speaking, Canadian drivers believe that ESC will give drivers more confidence, although those who say they already drive a vehicle with ESC are less likely to endorse this view.

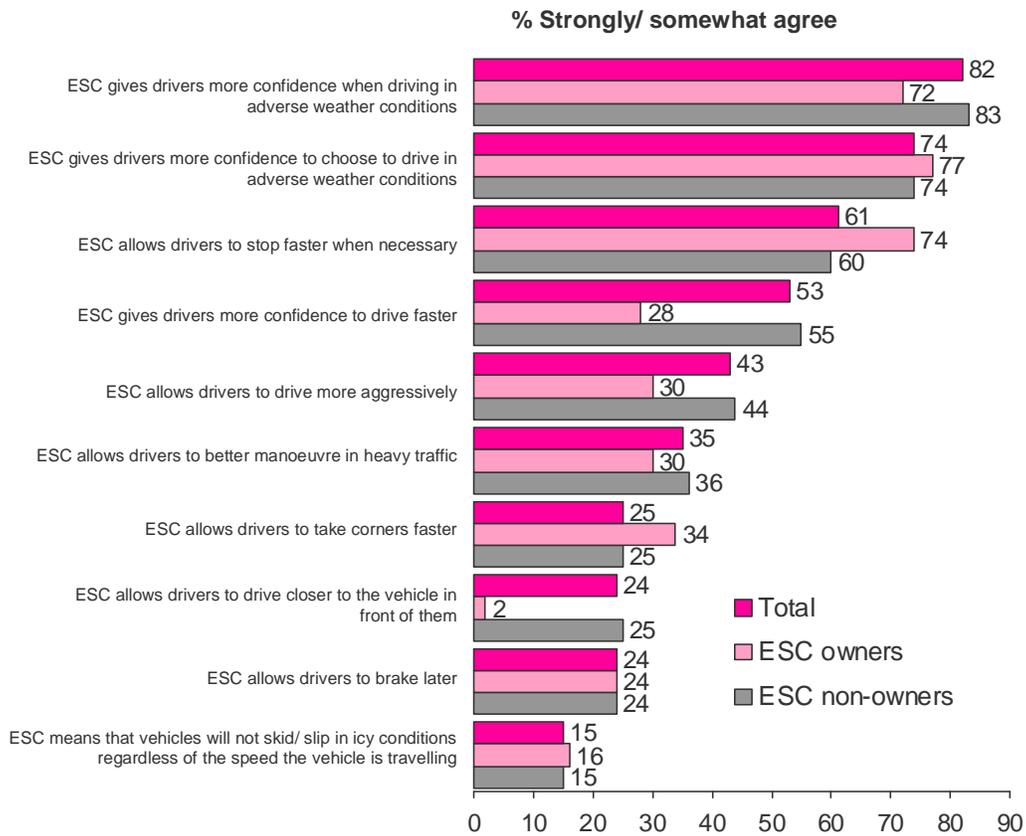
Seventy-five per cent of Canadian drivers believe ESC provides drivers with more confidence to *choose* to drive in adverse weather conditions and 82% believe it provides more confidence *when driving* in adverse weather conditions.

Over half of Canadians (53%) believe that ESC will give drivers an increased confidence to drive faster. Those who believe that they currently own a vehicle equipped with ESC are much less likely than those without ESC to think it gives confidence to drive faster (28%).

There continues to be some confusion among Canadian drivers about the technology. For example, many Canadian drivers erroneously believe that ESC will allow them to manoeuvre better in heavy traffic (35%), brake later (24%), prevent skidding or slipping on ice regardless of speed (15%) and drive closer to the vehicle in front (24%). Interestingly, and of particular concern, a very large portion of Canadian drivers (61%) also mistakenly believes that ESC will allow them to stop faster when necessary.

Additionally, some drivers believe that ESC will allow the driver to drive more aggressively (43%) and to take corners faster (25%). While ESC will, in fact, provide a vehicle with improved stability when taking corners, a driver's endorsement of this last statement is suggestive of an increased risk of behavioural adaptation. ESC will not enable a vehicle to remain stable when cornering if the physical limits of the situation make it impossible.

Figure 20. Attitudes Regarding Effects of ESC



Q: I am now going to read you a list of statements that other people have said about ESC technology and the effects that it has on drivers. Please let me know the extent to which you agree or disagree with each statement.

Base: Total respondents (n=500) / Total respondents with ESC on own vehicle (n=44) / Total respondents without ESC on own vehicle (n=456)

2008 TNS Canadian Facts

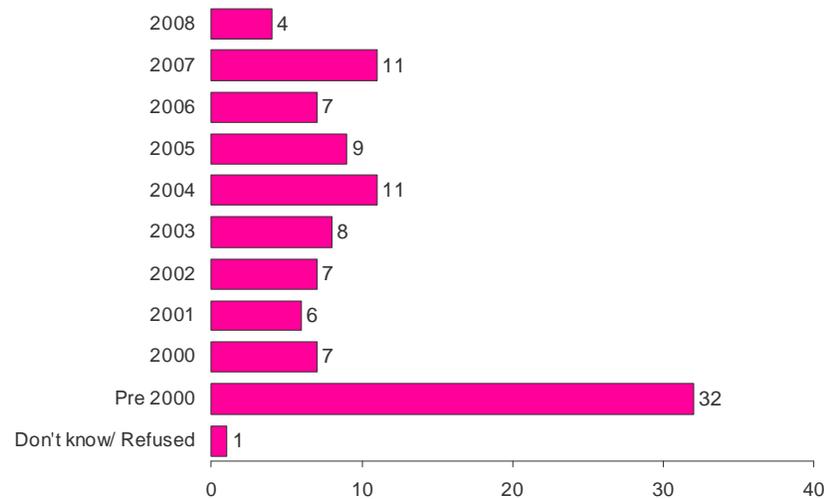
5.3.8 Vehicle Ownership, Use and Future Purchase

5.3.8.1 Current Model of Vehicle

About a third (32%) of the population owns a vehicle manufactured prior to 2000 while 15 per cent own a 2007 or 2008 vehicle.

Canadians are most likely to own a vehicle manufactured by Toyota (12%), Ford (11%), Chevrolet (11%), Honda (8%) or GMC (8%). Those who currently have ESC are more likely to be driving a GMC (10%) or a Toyota (7%).

Figure 21. Age of Vehicle



Q: What year was your vehicle manufactured?

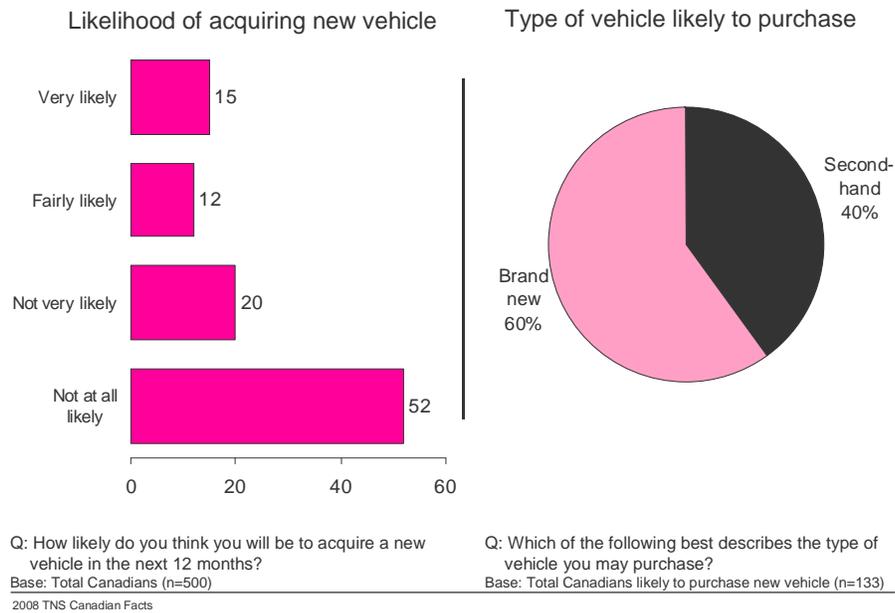
Base: Total Canadians (n=500)

2008 TNS Canadian Facts

5.3.8.2 Acquiring New Vehicle

Similar to 2006⁴ close to a quarter (27%) of Canadians are likely to purchase a vehicle within the next year. Of those who are likely to purchase a new vehicle, 60 per cent plan on purchasing a brand new vehicle while the remaining 40 per cent plan to purchase a second hand vehicle.

Figure 22. Acquiring New Vehicle in Next Year



⁴ 25% of Canadians were likely to purchase a new vehicle in 2006

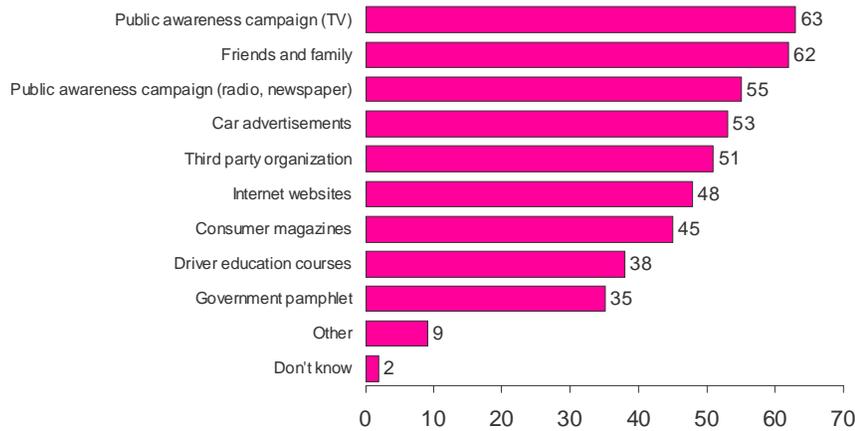
5.3.8.3 Vehicle Safety Information

Most Canadian drivers learn about vehicle safety from public awareness campaigns, either via television (63%) or via radio or newspaper (55%). Other popular learning methods include friends and family (62%), car advertisements (53%) and third party organizations (51%).

Demographics play a large role in where drivers get their vehicle safety information:

- Quebec residents are more likely than other Canadians to get their information from public awareness campaigns on TV (77% vs. 52-70%), third party organizations (66% vs. 36-48%), driver education courses (60% vs. 29-41%) and consumer magazines (58% vs. 29-43%)
- Younger drivers (16-24) are least likely to get their information from public awareness TV campaigns (34% vs. 63-68% for older drivers) and government pamphlets (26% vs. 32-40%) while older drivers (55+) are least likely to get their information from the Internet (34% vs. 53-57% for younger drivers)
- Women are more likely than men to get their information from friends and family (67% vs. 56%)
- Drivers with a high school education or less are least likely to get their information from the Internet (36% vs. 54-55%)

Figure 23. Sources of Information



Q: From which of the following sources of information are you likely to learn about vehicle safety?

Base: Total Canadians (n=500)

2008 TNS Canadian Facts

Table 10: Vehicle Safety Information – By Gender and Region

	Total Respondents							
	Total	Gender		Region				
		Male	Female	Atlantic	Quebec	Ontario	Prairies	BC
Base = actual	(500) %	(238) %	(262) %	(45)** %	(84)* %	(208) %	(100) %	(63)* %
Source of Information								
Public awareness campaign (TV)	63	60	66	70	77	57	62	52
Friends and family	62	56	67	59	66	58	63	66
Public awareness campaign (radio, newspaper)	55	52	58	59	57	58	49	44
Car advertisements	53	55	51	62	48	56	50	53
Third party organization	51	49	54	36	66	48	47	48
Internet websites	48	52	44	41	44	51	45	53
Consumer magazines	45	49	41	29	58	43	42	36
Driver education courses	38	41	36	41	60	29	31	36
Government pamphlet	35	31	39	38	42	35	26	35
Other	9	9	9	1	3	14	12	7
Don't know	2	2	2	1	3	2	0	0

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

Table 11: Vehicle Safety Information – By Age and Education

	Total Respondents							
	Total	Age				Education		
		16-24	25-34	35-54	55+	High-school or less	Comm./Tech. College	Some/Graduated Univ.
Base = actual	(500) %	(19)** %	(64)* %	(246) %	(171) %	(165) %	(151) %	(173) %
Source of Information								
Public awareness campaign (TV)	63	34	63	64	68	62	63	66
Friends and family	62	69	64	60	62	57	67	64
Public awareness campaign (radio, newspaper)	55	35	54	55	59	54	56	56
Car advertisements	53	39	59	50	56	52	54	55
Third party organization	51	50	48	50	55	46	57	52
Internet websites	48	57	56	53	34	36	54	55
Consumer magazines	45	59	40	46	43	43	42	50
Driver education courses	38	49	33	33	47	46	47	25
Government pamphlet	35	26	32	35	40	37	34	36
Other	9	15	0	12	11	6	8	13
Don't know	2	0	3	1	2	2	2	0

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

5.3.9 Primary Vehicle Use

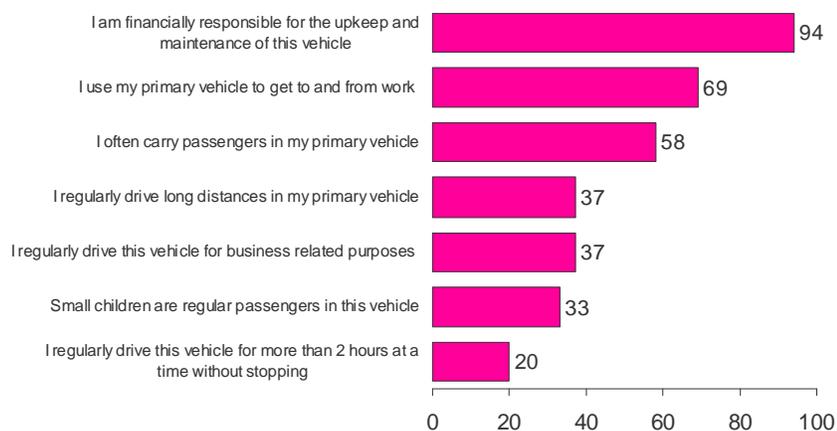
Few Canadians regularly drive long distances in their primary vehicle (37%). Those who do are more likely to be younger (16-34 vs. 35+) (43-48% vs. 30-34%, respectively), male (43% vs. 31% of females) and driving newer vehicles (07/08 models) (51% vs. 29-38% of pre-2007 vehicles). Even fewer Canadians drive more than two hours at a time without taking a break (20%), with Atlantic Canadians doing this twice as often (41%) as drivers from other Canadian regions (16-21%).

More than two thirds of Canadian drivers use their vehicle to get back and forth to work (69%) with those over the age of 55 least likely to do so (41% vs. 72-87% of younger drivers). Additionally, a moderate portion of Canadians (37%) regularly uses their vehicle for business related purposes with those in the Prairies doing this most often (46% vs. 22-41% of drivers from other regions).

More than half of all Canadian drivers say that they often carry passengers in their vehicles (58%) and one-third (33%) report carrying small children. Drivers 55+ are least likely to carry passengers (42% vs. 62-70% of drivers under age 55), while those aged 25-54 are most likely to carry young children (40-59% vs. 8-10% of other age groups). Women are more likely than men to carry both passengers (66% vs. 50%) and young children (38% vs. 27%).

The majority of Canadian drivers (94%) are responsible for the upkeep and maintenance of their vehicles, with those aged 55+ more likely than those under 55 (99% vs. 83-94%).

Figure 24. Primary Vehicle Use



Q: I am going to read out a list of statements and please tell me whether or not it describes how you use your primary vehicle?

Base: Total Canadians (n=500)

2008 TNS Canadian Facts

Table 12: Primary Vehicle Use – By Gender and Region

	Total Respondents							
	Total	Gender		Region				
		Male	Female	Atlantic	Quebec	Ontario	Prairies	BC
Base = actual	(500) %	(238) %	(262) %	(45)** %	(84)* %	(208) %	(100) %	(63)* %
% Yes								
I am financially responsible for the upkeep and maintenance of this vehicle	94	95	93	81	98	92	96	95
I use my primary vehicle to get to and from work	69	71	66	71	75	67	70	60
I often carry passengers in my primary vehicle	58	50	66	56	39	61	74	67
I regularly drive long distances in my primary vehicle	37	43	31	52	48	30	36	27
I regularly drive this vehicle for business related purposes	37	41	33	22	41	35	46	30
Small children are regular passengers in this vehicle	33	27	38	40	34	34	30	27
I regularly drive this vehicle for more than two hours at a time without stopping	20	24	16	41	21	16	21	17

* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

Table 13: Primary Vehicle Use – By Age and Age of Vehicle

	Total Respondents							
	Total	Age				Age of vehicle		
		16-24	25-34	35-54	55+	07/08	00-06	Pre 2000
Base = actual	(500) %	(19)** %	(64)* %	(246) %	(171) %	(63) %	(274) %	(157) %
% Yes								
I am financially responsible for the upkeep and maintenance of this vehicle	94	83	89	94	99	80	97	95
I use my primary vehicle to get to and from work	69	72	87	80	41	80	69	64
I often carry passengers in my primary vehicle	58	69	70	62	42	60	60	53
I regularly drive long distances in my primary vehicle	37	43	48	34	30	51	38	29
I regularly drive this vehicle for business related purposes	37	35	37	39	33	44	35	35
Small children are regular passengers in this vehicle	33	8	59	40	10	37	35	27
I regularly drive this vehicle for more than two hours at a time without stopping	20	9	22	18	24	27	20	18

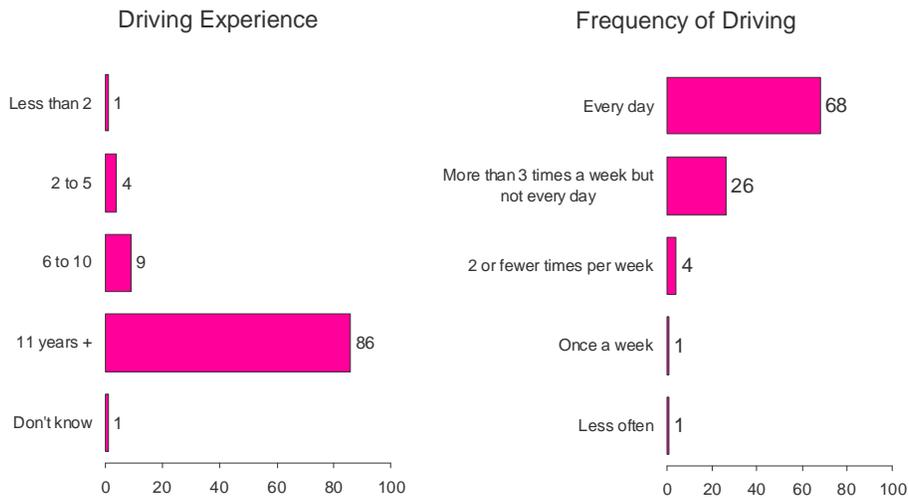
* Figures percentaged on a base of less than 100 should be interpreted with caution

** Figures percentaged on a base of less than 50 should be interpreted with extreme caution

5.3.10 Driving Experience and Frequency of Driving

The majority of Canadians (86%) are experienced drivers with over 10 years of driving experience. Few (9%) have 6 to 10 years experience, while even fewer have less than 5 years (5%). Few Canadians (6%) drive twice a week or less. The majority (68%) drives on a daily basis or at least three times a week (26%).

Figure 25. Driving Experience and Frequency of Driving



Q: How many years driving experience do you have?
Base: Total Canadians (n=500)

Q: How often do you personally drive your current vehicle?
Base: Total Canadians (n=500)

2008 TNS Canadian Facts

6 RESULTS—ESC OWNER / DRIVER SURVEY

The following section outlines the results of a survey conducted with owners of 2006-2008 ESC-equipped passenger vehicles in the provinces of Quebec and British Columbia (hereinafter referred to as ESC owners). One would expect drivers of ESC vehicles to have somewhat different attitudes about vehicles and about safety in particular given that they are a very small and unique group. In fact, in 2006 and 2007, 772,000 vehicles were sold in Canada with ESC as standard equipment. This represents less than 4% of the 19.4 million cars registered in Canada.⁵

A survey of owners of ESC vehicles provides key insight into the role that the technology plays in some people's purchase decision as well as information on the perceived impact of ESC on driving behaviour.

⁵ Information provided by Transport Canada.

6.1 General Views about Vehicles and Safety

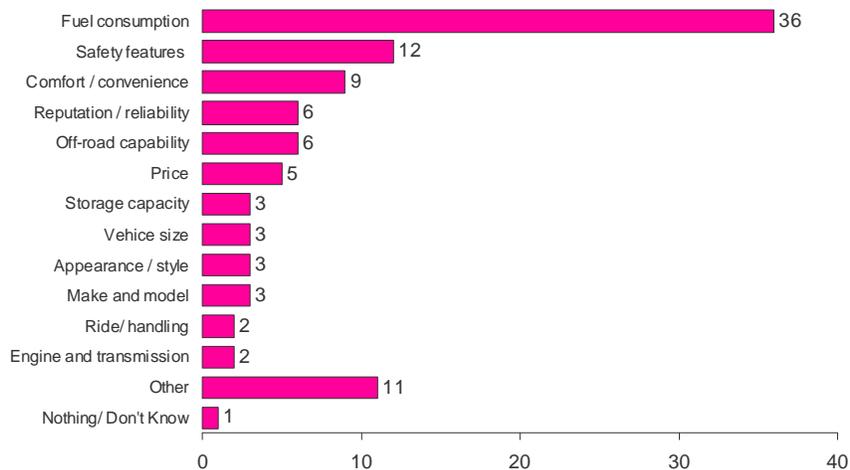
6.1.1 Most Important Feature for New Vehicle Purchase

Similar to the general public, ESC drivers are more concerned about fuel efficiency than safety features. The most important feature of a new vehicle purchase for ESC owners is fuel consumption (36%). Safety, though marginally more important for ESC owners, is a distant second with only 12 per cent of ESC owners finding it most important followed by comfort/convenience (9%), reputation/reliability (6%) and off-road capability (6%).

After fuel consumption, there are some demographic differences among ESC owners:

- Women who own ESC vehicles are more likely than men to consider safety most important (15% vs. 9%);
- Men who own ESC vehicles are more likely than women to base their purchase decision on comfort and convenience (10% vs. 6%).
- Quebec owners are more likely than drivers from BC to consider comfort and convenience (11% vs. 5%), reputation and reliability (7% vs. 4%) and storage capacity (5% vs. 1%) most important, while BC owners are more likely than those from Quebec to consider safety features important (18% vs. 7%).

Figure 26. Most Important Feature for New Vehicle Purchase



Q: If you were to purchase a new car tomorrow, what feature or characteristic would be most important to you when deciding which vehicle to purchase?

Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

Table 14: Most Important Feature for New Car Purchase – By Gender and Region

	Total Respondents				
	Total	Gender		Region	
		(1017) %	Male (740) %	Female (277) %	Quebec (666) %
Base = actual					
Most Important Feature					
Fuel consumption	36	35	38	37	36
Safety features that are available	12	9	15	7	18
Comfort and convenience	9	10	6	11	5
Reputation/ reliability	6	7	5	7	4
Off-road capability	6	6	5	6	5
Price	5	6	3	6	4
Storage capacity	3	3	4	5	1
Vehicle size	3	3	4	3	4
Appearance/ style	3	2	4	2	4
Make and model	3	3	4	3	3
Ride and handling	2	2	2	2	2
Engine and transmission	2	2	2	1	3
Performance	1	2	*	1	2
Added extras (Sound system, GPS)	1	1	1	*	2
Quality	1	1	*	1	1
Number of seating positions	1	*	1	1	1
Warranty/ service	1	1	0	1	0
Hybrid	1	0	1	*	1
Versatile	1	1	*	1	1
Environmentally friendly/ low fuel consumption	1	*	1	1	*
Speed and power	1	1	0	1	1
Towing capability	1	1	0	*	1
Other miscellaneous	3	3	3	3	3
Nothing/ Don't know	1	2	1	1	2

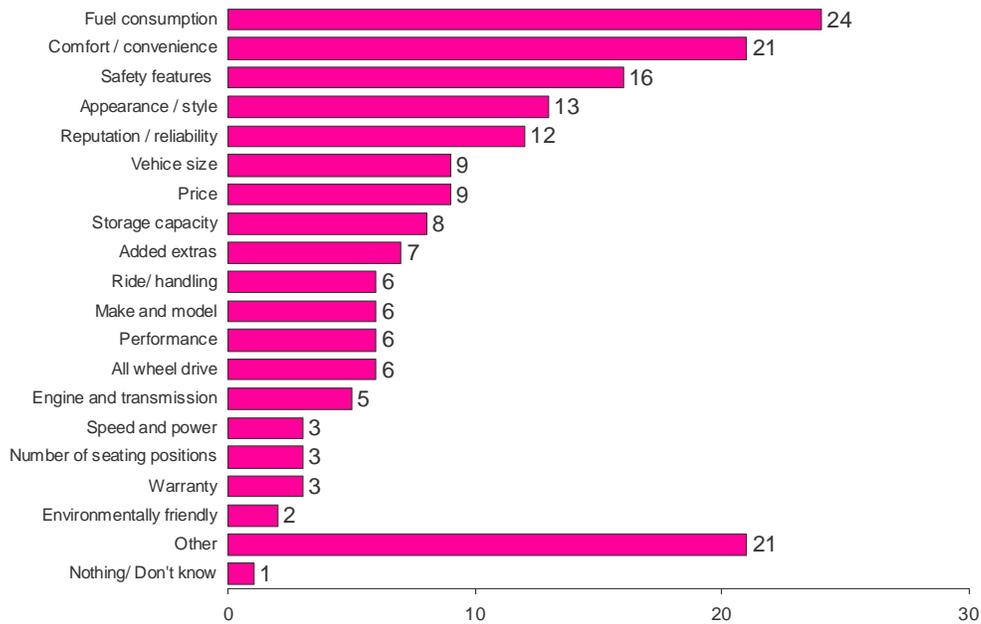
* Less than 0.5%

6.1.2 Other Important Features for New Vehicle Purchase

ESC owners not only find fuel consumption the most important feature they look for in a new car, it is also the most common other important feature, with close to a quarter of all ESC owners (24%) indicating it's importance. Thus, more than 60% of ESC drivers find fuel consumption important (one of the top two features cited). Similarly, a quarter of all ESC drivers find safety features important (12% most important, 16% other important feature).

Other features that ESC owners find important in new vehicles include: comfort and convenience (21%), appearance/style (13%), and reputation and reliability (12%).

Figure 27. Other Important Features



Q: What other features or characteristics would be important to you?

Base: Total ESC owners (n=1017)

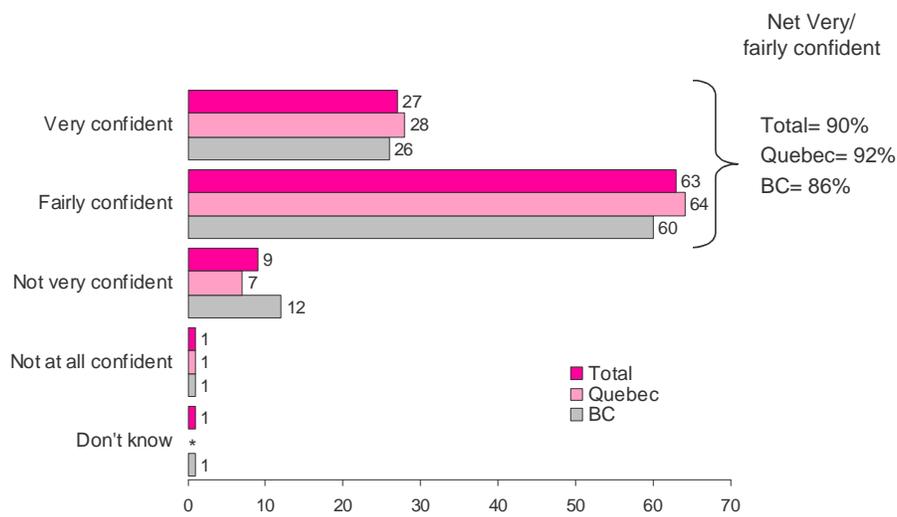
2008 TNS Canadian Facts

6.1.3 Level of Confidence in Safety of Vehicles on Canadian Roads

ESC owners are as confident as the rest of Canada in the safety of vehicles on Canadian roads (90% and 91% respectively).

- Quebec ESC owners are slightly more confident than those in BC (92% vs. 86%).
- Those who noticed long-term (the change in driving habits still exists) changes to their driving since starting to drive their current vehicle are also more confident in vehicle safety than those who noticed shorter-lasting changes to their driving (95% vs. 77%).

Figure 28. Level of Confidence in Safety Of Vehicles on Canadian Roads



* Less than 0.5%

Q: How confident are you in the safety of vehicles on the road in Canada today?

Base: Total ESC owners (n=1017) / Quebec ESC owners (n=666) / BC ESC owners (n=351)

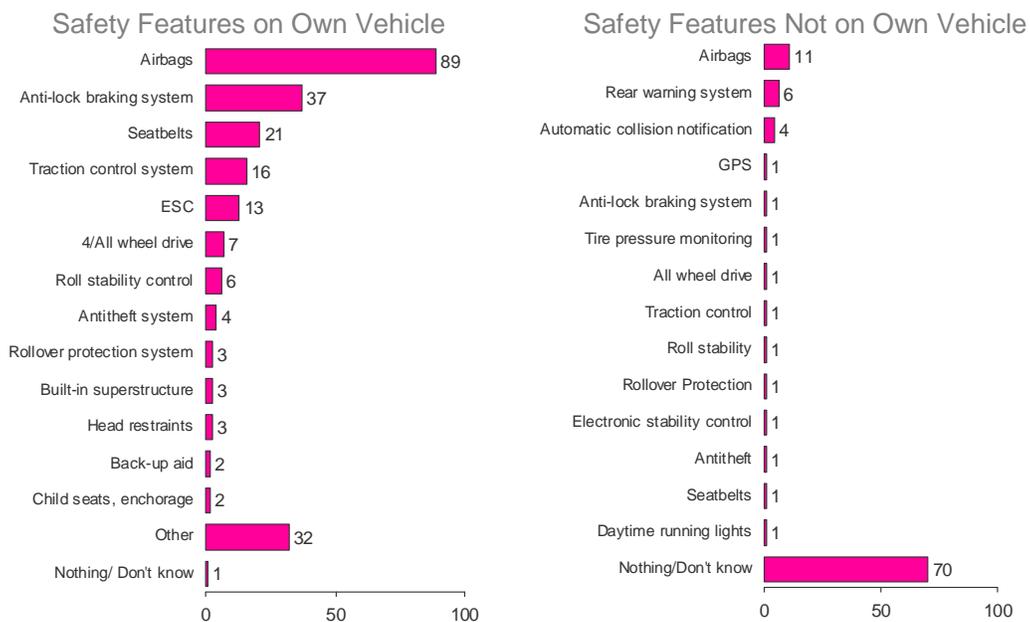
2008 TNS Canadian Facts

6.1.4 Safety Features

6.1.4.1 Safety Features Identified on Own Vehicle

ESC is not a ‘top of mind’ safety feature, even for those who own ESC-equipped vehicles. Only 13 per cent of ESC owners think, unprompted, of ESC as a safety feature on their vehicle. Similar to the general public, airbags (89%), ABS (37%) and seatbelts (21%) are the three most commonly identified features that define safety enhancements.

Figure 29. Safety Features



Q: What safety features are on your own vehicle?

Q: Can you think of any safety features that are not on your vehicle?

Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

Table 15: Safety Features on Own Vehicle – By Region and Age

	Total Respondents					
	Total	Region		Age		
		Québec	BC	16-34	35-54	55+
Base = actual	(1017) %	(666) %	(351) %	(92)* %	(480) %	(445) %
Safety Features						
Airbags (front/ side)	89	88	91	95	91	82
Anti-lock braking system	37	34	42	37	39	33
Seatbelts	21	21	22	17	19	28
Traction control system	16	17	15	17	17	14
Electronic stability control (ESC)	13	12	14	11	14	12
Four/ All wheel drive	7	7	8	4	8	8
Roll stability control (RSC)	6	4	8	7	6	4
Antitheft system/ electronic immobilizer	4	6	1	3	4	5
Rollover protection system (ROPS)	3	2	4	5	2	4
Built in superstructure/ toucher frame/ safety frame	3	3	3	5	2	3
Head restraint	3	2	3	3	2	2
Back-up aid	2	1	5	3	1	4
Child seats anchorages	2	1	3	5	2	1
Bar reinforcement	2	2	1	2	2	1
Automatic collision notification (On-Star)	2	3	0	1	1	3
Daytime running lights	2	1	3	1	2	2
Anti-starter	1	2	0	2	1	2
Seat belt pretensioners	1	1	1	2	1	1
Anti-skid system	1	1	1	1	2	1
Higher vehicle/ seats up high	1	1	1	1	1	1
Side door reinforcing/ side impact beams	1	1	1	1	1	2
More resistant bumper	1	1	1	0	1	1
Alarm system	1	1	1	0	1	1
Automatic locking doors	1	1	1	0	1	1
Size	1	1	1	1	1	1
Good tires/ snow tires	1	1	1	0	1	1
Whiplash protection system	1	1	1	0	1	1
Don't know	1	1	1	1	0	2

- Not all mentions shown – see detailed tables for complete list

*Figures percentaged on a base of less than 100 should be interpreted with caution

6.1.4.2 Safety Features Not on Own Vehicle

As with most Canadians, most ESC owners (70%) cannot identify any safety features that are available on other vehicles, but are not on their own vehicle. A small portion (11%) identify some type of air bag (usually side airbag) and an even smaller percentage (6%) indicate a rear warning system or automatic collision notification (4%).

Table 16: Safety Features - Other Vehicles that are Not on Own Vehicle – By Year of Vehicle

	Total Respondents Aware of Safety Features on Own Car			
	Year of Vehicle			
	Total	2008	2007	2006
Base = actual	(1003) %	(286) %	(412) %	(249) %
Safety feature not on vehicle				
Airbag (front and side)	11	4	11	15
Rear warning system	6	5	7	5
Automatic collision notification/ On Star	4	3	4	3
GPS	1	2	1	*
Anti-lock braking system	1	1	1	2
Tire pressure monitoring system	1	1	*	1
Four/ all wheel drive	1	1	1	1
Traction control system	1	0	1	2
Roll stability control	1	*	1	1
Rollover protection system	1	*	2	1
Antitheft system/ electronic immobilizer	1	1	1	1
Electronic Stability Control	1	0	1	1
Seatbelts	1	1	1	1
Daytime running lights	1	0	1	1
Nothing/ Don't know	70	77	67	68

- Not all mentions shown – see detailed tables for complete list
* Less than 0.5%

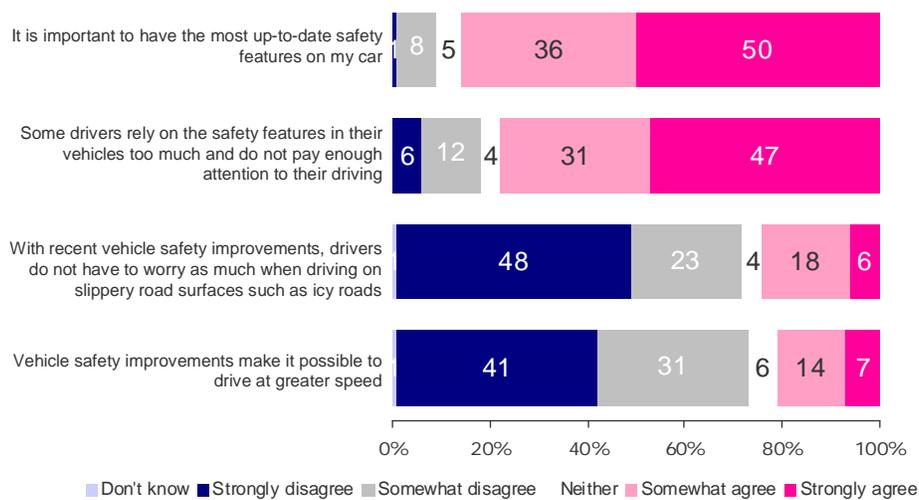
6.1.5 Attitudes Toward Vehicle Safety Improvements and Features

ESC owners' attitudes towards vehicle safety are very similar to other Canadians'. Few ESC owners believe that safety features have any impact on driving conditions (22-24%), though many (78%) do believe that drivers rely too heavily on vehicle safety features. More specifically, 72 per cent do not believe safety improvements make it possible to drive at greater speeds, and 71 per cent do not think they have any impact on driving in slippery conditions such as ice.

Demographic differences do exist in relation to ESC owners' attitudes toward vehicle safety improvements and features. For example:

- BC owners are more likely than owners from Quebec to find it important to have up-to-date safety features on their cars (89% vs. 83%) and are more likely to believe that safety improvements make it possible to drive at greater speeds (29% vs. 17%).
- Those 55+ are more likely than younger drivers to believe that vehicle improvements mean that drivers need to worry less in slippery or icy conditions (30% vs. 20-22%)

Figure 30. Attitudes Toward Vehicle Safety Improvements and Features



Q: I am now going to read you a list of statements that other people have made about safety features in vehicles. Please let me know the extent to which you agree or disagree with each statement.

Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

Table 17: Attitudes Toward Vehicle Safety Improvements and Features – By Region, Gender and Age

	Total Respondents							
	Total	Region		Gender		Age		
		Québec	BC	Male	Female	16-34	35-54	55+
Base = actual	(1017) %	(666) %	(351) %	(710) %	(277) %	(92)* %	(480) %	(445) %
% Net strongly/ somewhat agree								
It is important to have the most up-to-date safety features on my car	86	83	89	85	88	78	86	89
Some drivers rely on the safety features in their vehicles too much and do not pay enough attention to their driving	78	77	80	77	80	81	77	78
With recent vehicle safety improvements, drivers do not have to worry as much when driving on slippery road surfaces such as icy roads	24	25	22	25	22	20	22	30
Vehicle safety improvements make it possible to drive at greater speed	22	17	29	26	14	25	20	23

* Figures percentaged on a base of less than 100 should be interpreted with caution

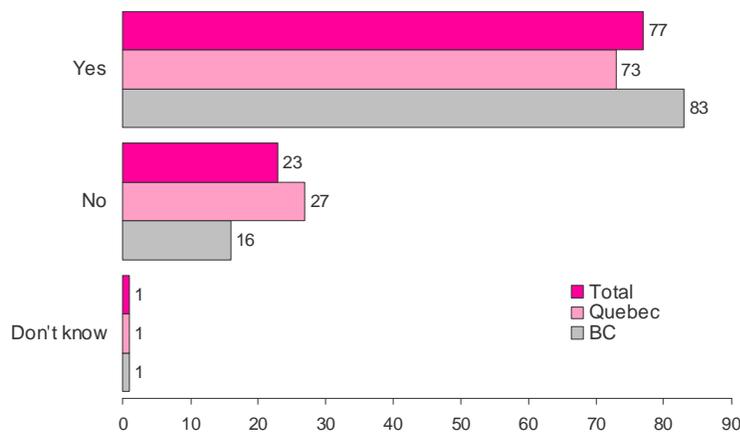
6.2 Electronic Stability Control (ESC)

6.2.1 ESC Awareness

ESC owners are twice as likely to be aware of ESC technology (77%) than the general population (39%). That being said, close to a quarter of ESC owners are unaware of a significant safety technology that is installed in their vehicle. A lack of awareness of the technology could be the result of confusion in the market (different companies use different names / explanations for ESC) or the nature of the purchasing process.⁶

- Interestingly, ESC owners from BC (83%) are more aware of ESC technology than those from Quebec (73%).
- Men who own ESC vehicles (84%) are more aware of ESC technology than women who own ESC vehicles (64%).
- Older ESC owners (35+) are less aware of the technology than their younger counterparts (<35) (85% vs. 74-76%)

Figure 31. ESC Awareness



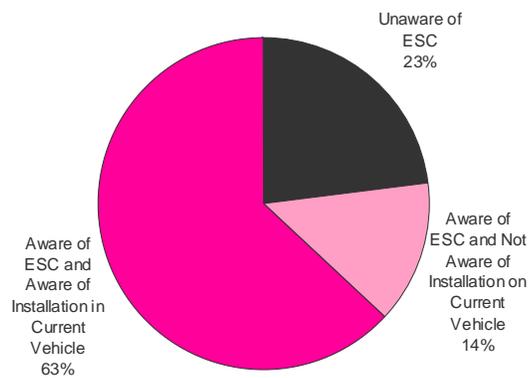
Q: Before today, had you heard of this (ESC) technology?
 Base: Total ESC owners (n=1017) / Quebec ESC owners (n=666) / BC ESC owners (n=351)
 2008 TNS Canadian Facts

⁶ The owner of the car based on the registration was the person who was invited to take part in the survey but it is possible that the purchaser was a different person.

6.2.2 ESC Ownership

Only 63% of ESC owners are aware that their vehicle is equipped with ESC. Although it is interesting that a significant percentage of ESC owners are not aware that the technology is installed on their vehicle, a precondition for being aware is to be aware of the technology in general. As mentioned earlier, 23% are not aware of the technology at all. When those who are unaware of the technology are removed from the sample, awareness of ESC being installed on any of their current vehicle increases to 84%.

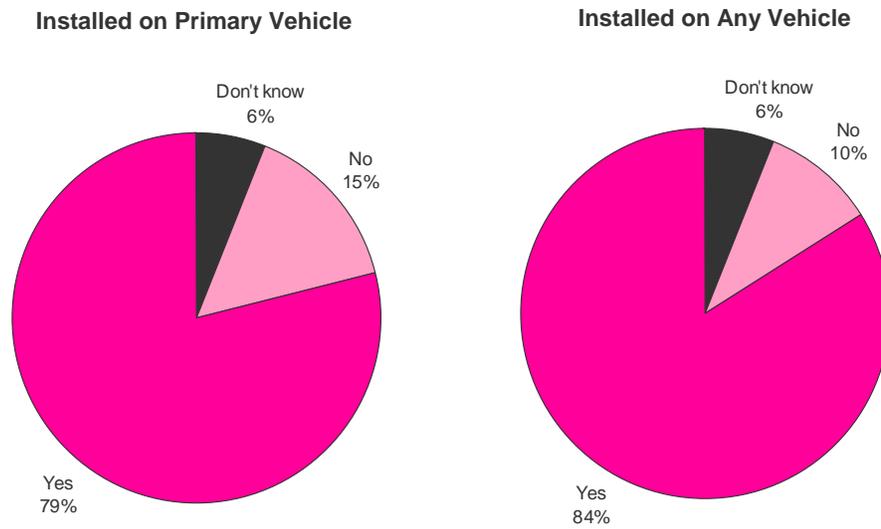
Figure 32. Awareness of ESC Installation



Q: Do you currently have ESC (Electronic Stability Control) installed on the main vehicle that you own and drive?
Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

Figure 33. Awareness of ESC Installation – Based on Those Aware of ESC Technology



Q: Do you currently have ESC (Electronic Stability Control) installed on the main vehicle that you own and drive?

Q: Do any of the vehicles in your household have ESC installed on them?

Base: Total ESC owners aware of ESC technology (n=650)

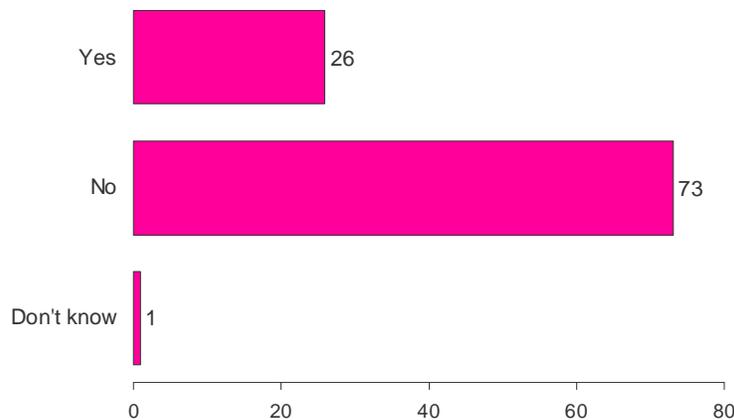
2008 TNS Canadian Facts

6.2.3 ESC and Purchasing

Of those ESC owners who are aware that their vehicle is equipped with the technology, one in four (26%) specifically looked for a vehicle that came equipped with ESC. The technology has been important, then, for only a minority of car purchasers.

Men (29%) and older Canadians (34% among 55+) are more likely to specifically seek out ESC than women (18%) and younger Canadians (20-24%).

Figure 34. ESC and Purchasing



Q: When you were looking to purchase your present vehicle, did you specifically look for a vehicle that came equipped with Electronic Stability Control or ESC Technology?

Base: Total ESC owners aware of installation on their vehicle (n=642)

2008 TNS Canadian Facts

Table 18: ESC and Purchasing – By Gender and Age

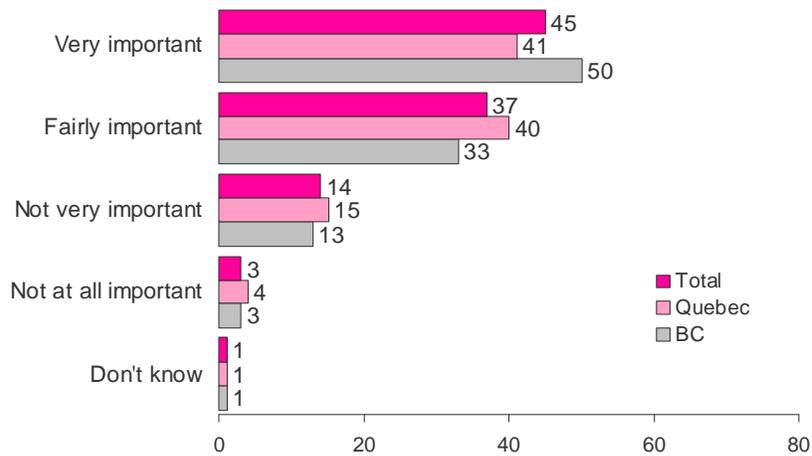
	Total Respondents					
	Total	Gender		Age		
		Male	Female	16-34	35-54	55+
Base = actual	(1017) %	(710) %	(277) %	(92)* %	(480) %	(445) %
Specifically looked for ESC when purchased last vehicle						
Yes	26	29	18	20	24	34
No	73	71	80	79	76	65
Don't know	1	0	2	1	0	1

* Figures percentaged on a base of less than 100 should be interpreted with caution

6.2.4 Importance of ESC on Next Vehicle

There is considerable potential for ESC to grow in popularity given the expressed importance. Four of every five ESC owners believe it is important to have ESC installed on their next vehicle. This includes both those who know they have it and those who do not. ESC owners from BC are more likely (50%) than those from Quebec (41%) to find it *very* important.

Figure 35. Importance of Having ESC Installed on Next Vehicle



Q: How important would it be to have ESC technology installed on your next vehicle?
 Base: Total ESC owners (n=1017) / Quebec ESC owners (n=666) / BC ESC owners (n=351)
 2008 TNS Canadian Facts

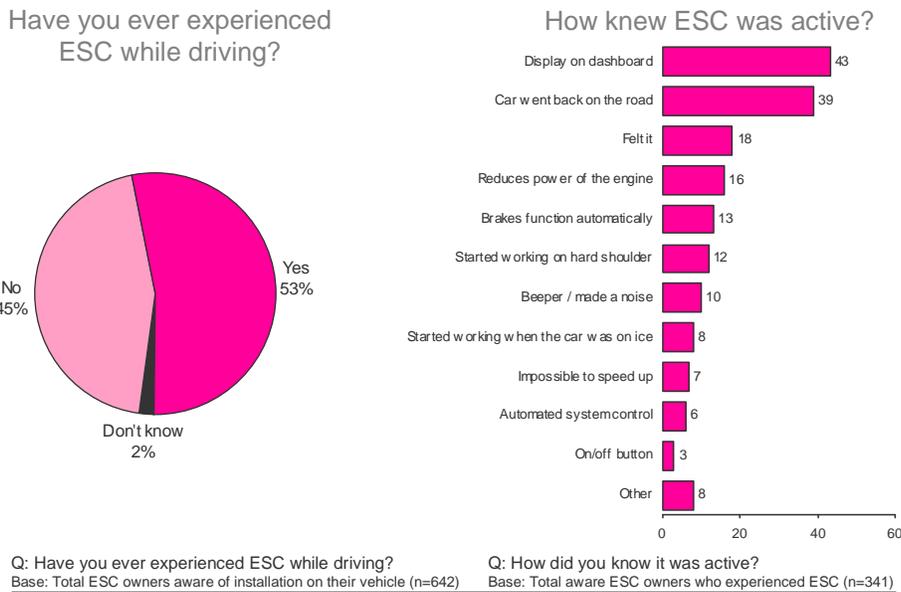
6.2.5 Experienced ESC While Driving

Fifty-three per cent of owners who know ESC is installed on their vehicle have experienced ESC while driving. Quebec owners who know ESC is installed experienced ESC more often than BC owners that know ESC is installed (60% vs. 45%).

The most common indications that ESC has been activated include:

- An indication light displayed on the dashboard or an alarm sounded indicating it was activated (43%)
- The vehicle returned to the road (39%)
- The driver could “feel” it (18%)
- The engine power was reduced (16%)
- The brakes automatically engaged (13%)

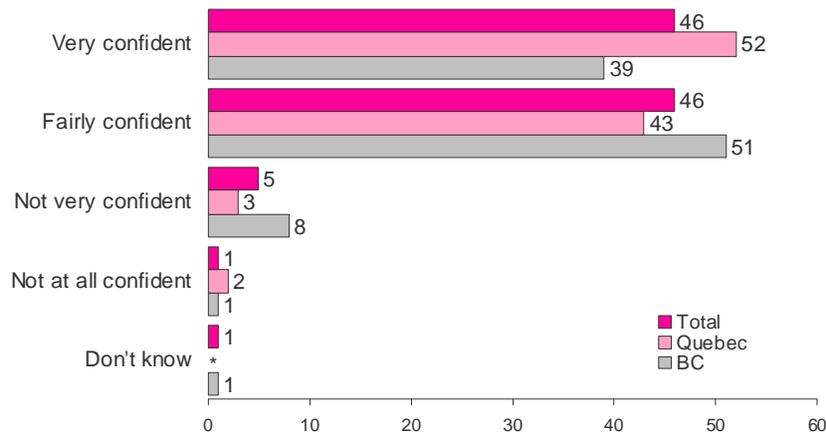
Figure 36. Experienced ESC While Driving?



6.2.6 Confidence in ESC

Almost all ESC drivers (90%) who know they have the technology are confident that it will work in an emergency situation. Confidence is higher in Quebec (52% very confident) than in BC (39% very confident).

Figure 37. Confidence in ESC



* Less than 0.5%

Q: How confident are you that your ESC would work in an emergency situation?

Base: Total ESC owners aware of installation on their vehicle (n=642) / Quebec (n=407) / BC (n=235)

2008 TNS Canadian Facts

Table 19: Confidence in ESC – By Age

	ESC Aware Owners			
	Total	Age		
		16-34	35-54	55+
Base = actual	(642) %	(68)* %	(301) %	(273) %
Level of Confidence				
Very confident	46	43	46	50
Fairly confident	46	48	47	43
Not very confident	5	8	5	4
Not at all confident	1	1	1	1
Don't know	1	0	1	1

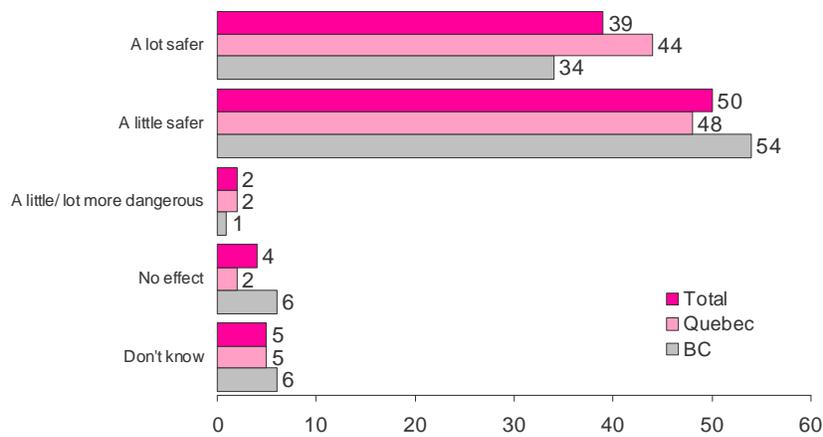
* Figures percentaged on a base of less than 100 should be interpreted with caution

6.3 Attitudes Towards ESC and Safety

6.3.1 Effect of ESC on Driving

Most ESC owners who are aware that their vehicle is ESC-equipped believe that ESC has made it safer to drive (89%). Interestingly, those from Quebec (44%) are more likely to believe ESC makes it “a lot safer” to drive than those from BC (34%).

Figure 38. Whether ESC Has Made Driving Safer or More Dangerous



Q: Overall, would you say that the ESC technology installed on your vehicle has made it a lot safer to drive your vehicle, a little safer to drive, a little more dangerous to drive or a lot more dangerous to drive?

Base: Total ESC owners aware of installation on their vehicle (n=642) / Quebec (n=407) / BC (n=235)

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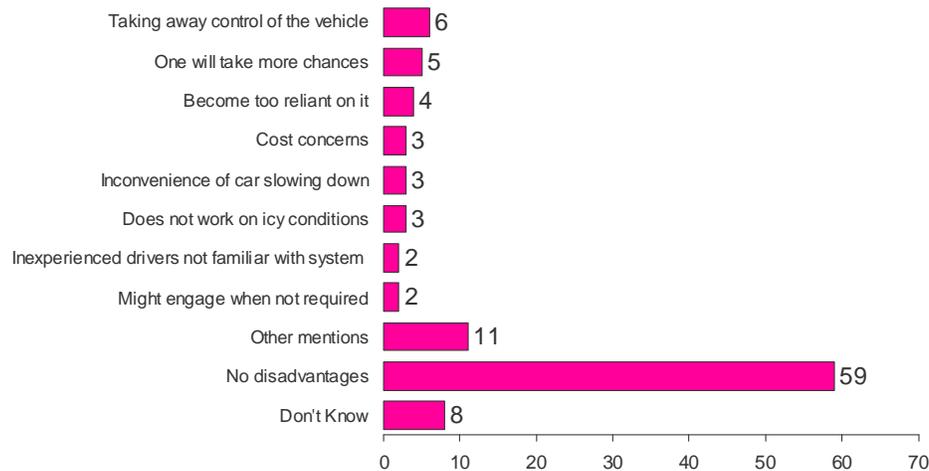
6.3.2 Disadvantages of ESC

More than two in five (41%) ESC drivers who are aware of its presence on their vehicle believe there are disadvantages to ESC.

Common disadvantages cited include:

- Taking control of the vehicle away from the driver (6%)
- Increased risk taking by the driver (5%)
- Driver reliance on ESC (4%)

Figure 39. Disadvantages of ESC – Aware of ESC on Vehicle



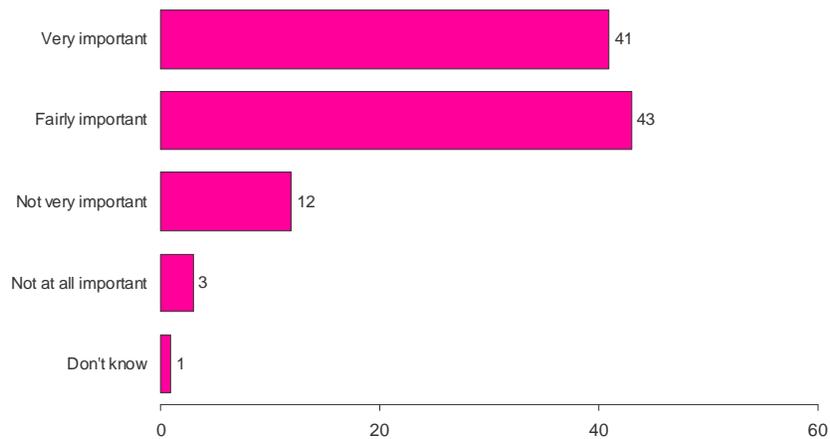
Q: Are there any disadvantages of ESC? If so, what are they?
 Base: Total ESC owners aware of installation on their vehicle (n=642)

2008 TNS Canadian Facts

6.3.3 Importance of ESC as Standard Equipment

ESC drivers are more likely than other Canadians (84% vs. 67%) to believe that it is important to have ESC installed as standard equipment on all vehicles.

Figure 40. Importance of ESC as Standard Equipment



Q: How important do you feel it is to have ESC installed as standard equipment on all new vehicles sold in Canada today?

Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

6.3.4 Impact of ESC on Driving Behaviour

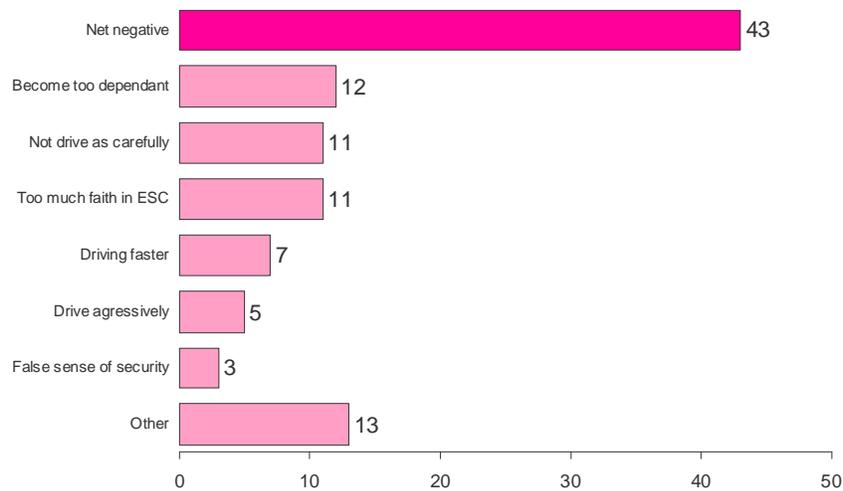
ESC drivers are less likely than the general public to think that ESC will have negative impacts on driving behaviour (43% vs. 59%) and more likely to think that it will have positive impacts (42% vs. 34%). About the same proportion of ESC owners believe that ESC will have negative impacts (43%) on drivers as those who believe ESC will have positive impacts (42%).

6.3.4.1 Negative

Negative impacts that ESC owners are concerned about are similar to those that the general public is concerned about and are mostly related to the driver becoming over-reliant on ESC. Concerns include:

- Drivers becoming too dependent on the system (12%)
- Not driving as carefully (11%)
- Having too much faith in the ESC system (11%)
- Increased driving speed (7%)

Figure 41. Negative Impact of ESC



Q: How do you think the installation of ESC technology on vehicles impacts people's driving behaviour and their overall driving experience? We are interested in your views on this whether they are positive or negative.
 Base: Total ESC owners (n=1017)

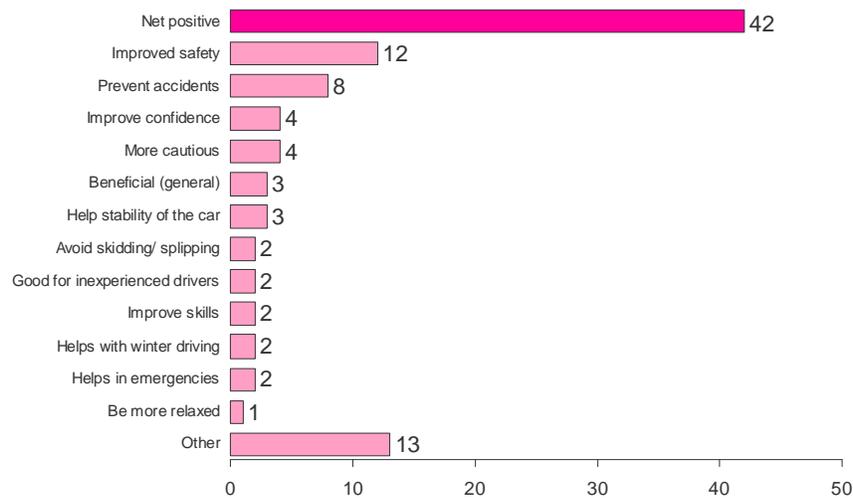
2008 TNS Canadian Facts

6.3.4.2 Positive

Positive impacts of ESC on driving behaviour identified by ESC owners are also similar to the general public and include:

- Improved safety (12%)
- Accident prevention (8%)
- Improved driver confidence (4%)
- Increased driver caution (4%)
- Increased stability of the vehicle (3%)
- Avoidance of slipping and skidding (2%)

Figure 42. Positive Impact of ESC



Q: How do you think the installation of ESC technology on vehicles impacts people's driving behaviour and their overall driving experience? We are interested in your views on this whether they are positive or negative.

Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

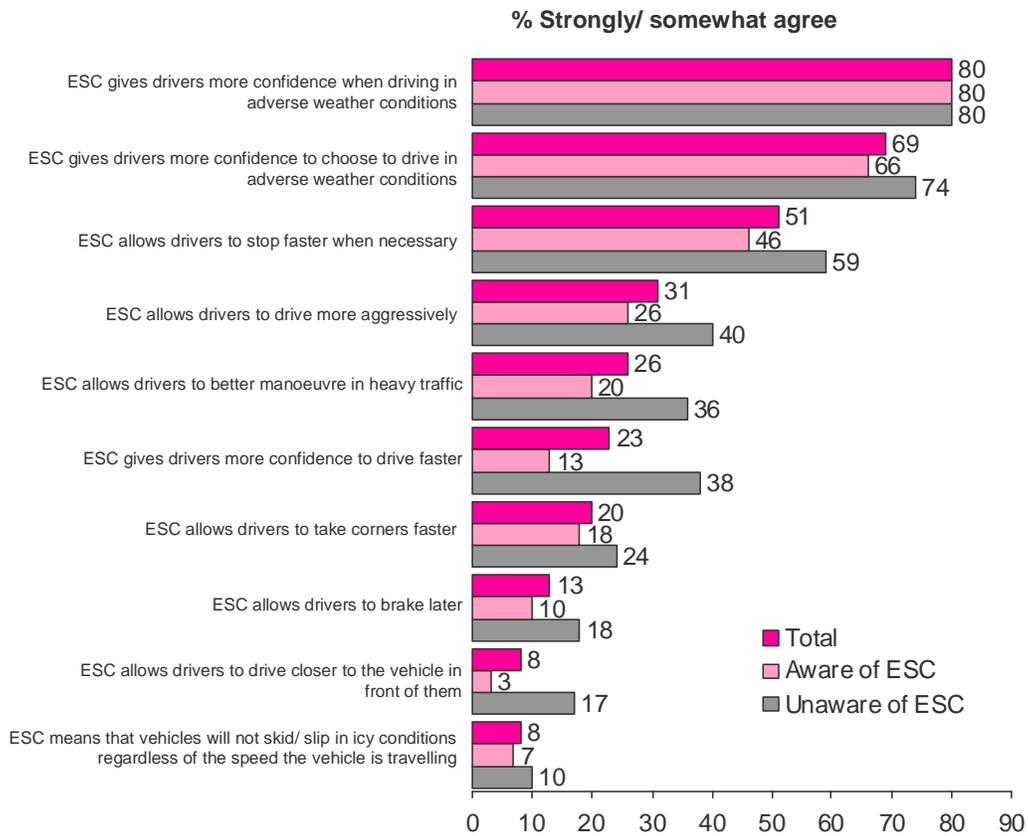
6.3.5 Effect of ESC

Generally speaking, ESC owners are more knowledgeable and better understand ESC technology and the benefits it can provide than the general public. Of course, those who are unaware of the installation of ESC technology on their vehicle are more similar to the general public in their understanding of the technology.

In particular, ESC owners believe that ESC will give drivers more confidence. This is true for both owners that know the technology is installed on their vehicle and, to a lesser extent, for those who do not. Confidence is particularly high to drive in adverse conditions (80%) and slightly less to *choose* to drive in adverse weather conditions (69%). Interestingly, only a quarter believe the technology gives drivers confidence to drive faster compared with 53 per cent of the public who sees this as a consequence of ESC.

There is also some confusion among ESC owners, though to a lesser extent than the general public, about what the technology offers. Some owners erroneously believe that ESC will allow them to manoeuvre better in heavy traffic (26%), brake later (13%), prevent skidding or slipping on ice regardless of speed (8%) and drive closer to the vehicle in front (8%). Interestingly, and of concern, a very large portion of ESC owners also believes that ESC will allow them to stop faster when necessary (51% of ESC owners). Additionally, some drivers believe that ESC will allow the driver to drive more aggressively (31%) and to take corners faster (20%). It is important to note that while ESC does have the potential to improve a vehicle's capacity to corner it does not allow drivers to take corners faster than recommended. While ESC will, in fact, provide a vehicle with improved stability when taking corners, a driver's endorsement of this last statement is suggestive of an increased risk of behavioural adaptation. ESC will not enable a vehicle to remain stable when cornering if the physical limits of the situation make it impossible.

Figure 43. Attitudes Regarding Effects of ESC



Q: I am now going to read you a list of statements that other people have said about ESC technology and the effects that it has on drivers. Please let me know the extent to which you agree or disagree with each statement.

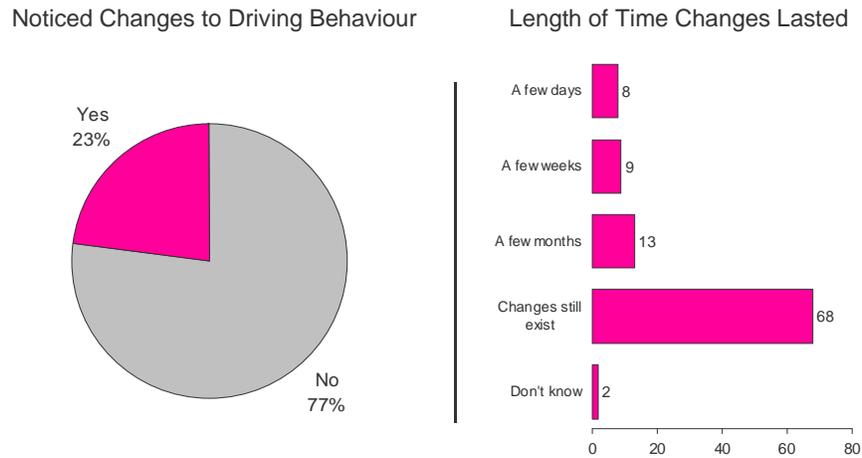
Base: Total ESC owners (n=1017) / Total aware ESC owners (n=642) / Total unaware ESC owners (n=375)

2008 TNS Canadian Facts

6.3.6 Changes to Driving

Close to a quarter (23%) of ESC owners who are aware that their vehicle is equipped with the technology noticed changes in their driving behaviour when they first began driving the vehicle. Of those who noticed changes, most indicated changes to driving behaviour that were long lasting (68%), while a few indicated that the changes were short-lived (30%).

Figure 44. Changes to Driving Behaviour



Q: Did you notice any changes in your driving when you first began driving your current vehicle?
 Base: Total ESC owners aware of installation on their vehicle (n=642)

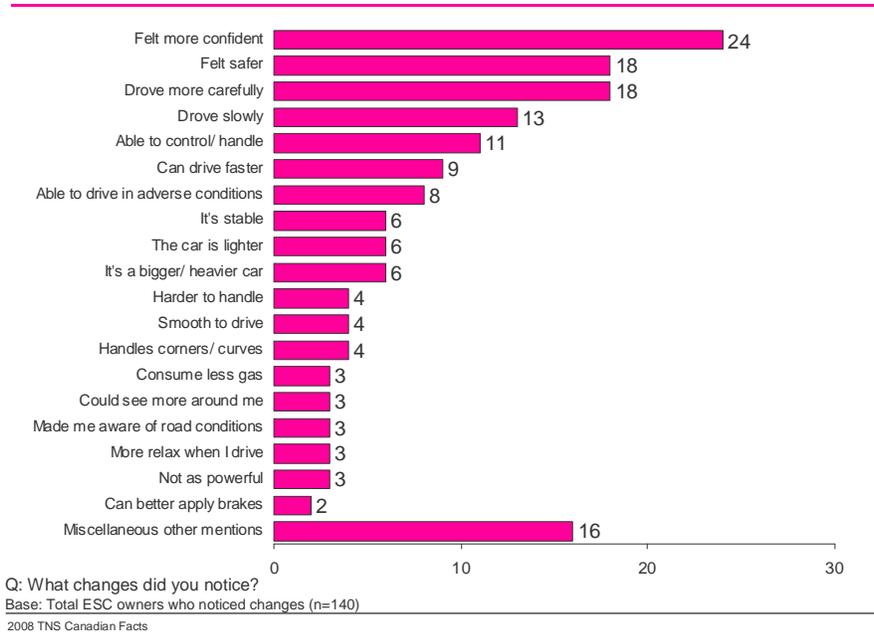
Q: How long did these changes to your driving behaviour last?
 Base: Total ESC drivers who noticed changes (n=140)

2008 TNS Canadian Facts

Common behavioural changes that occurred in aware ESC owners were both positive and negative and include:

- Feeling more confident (24%)
- Feeling safer (18%)
- Driving more carefully (18%)
- Driving more slowly (13%)
- Being able to handle the vehicle better (11%)
- Driving faster (9%)
- Ability to drive in adverse weather (8%)

Figure 45. Changes Noticed to Driving Behaviour

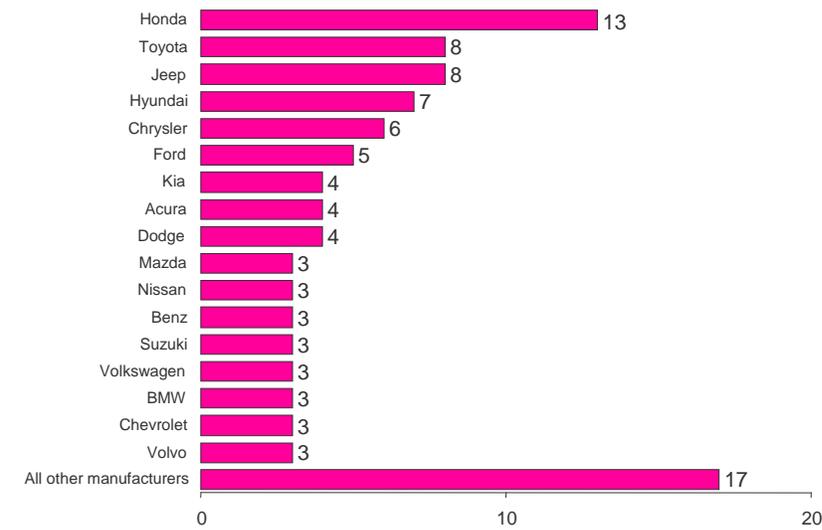


6.4 Vehicle Ownership, Use and Future Purchase

6.4.1 Vehicle Manufacturer

ESC owners are most likely to own vehicles manufactured by Honda (13%), Toyota (8%), Jeep (8%) and Hyundai (7%). BC Owners are more likely than Quebec owners to own a Honda (17% vs. 10%) while Quebec owners are more likely than those from BC to own a Jeep (10% vs. 5%).

Figure 46. Manufacturer of Vehicle



Q: What is the manufacturer of your vehicle?

Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

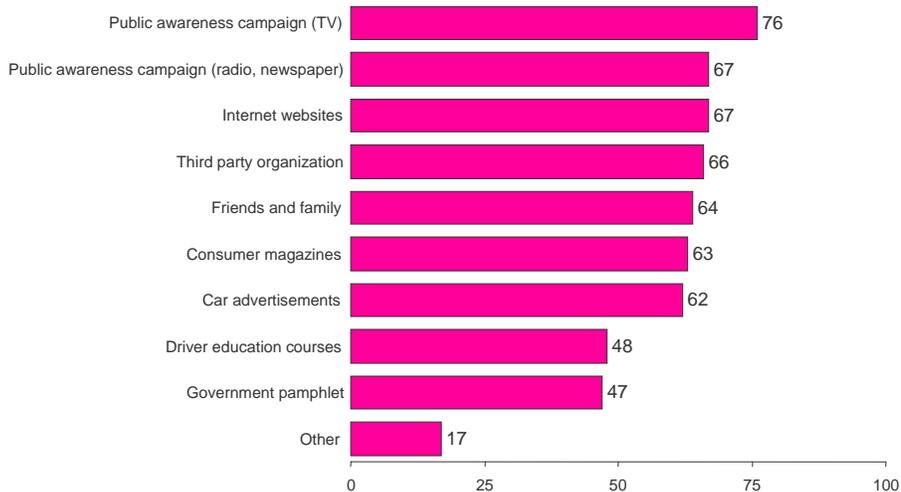
6.4.2 Vehicle Safety Information

Most ESC owners learn about vehicle safety from public awareness campaigns, either via television (76%) or via radio or newspaper (67%). Other popular learning methods include websites (67%), third party organizations (66%) and family and friends (64%).

Demographics play a large role in where ESC owners get their vehicle safety information.

- Quebec owners are more likely than BC owners to get their information from public awareness campaigns on TV (78% vs. 72%), consumer magazines (67% vs. 56%) and driver education courses (59% vs. 34%).
- Younger owners (16-34) are most likely to get their information from friends and family than older drivers (78% vs. 57-64%).
- Women owners are more likely than men to get their information from friends and family (75% vs. 58%) and from public awareness campaigns on TV (81% vs. 72%)

Figure 47. Source of Information



Q: From which of the following sources of information are you likely to learn about vehicle
 Base: Total ESC owners (n=1017)

2008 TNS Canadian Facts

Table 20: Vehicle Safety Information – By Region, Gender and Age

	Total Respondents							
	Total	Region		Gender		Age		
			Québec	BC	Male	Female	16-34	35-54
Base = actual	(1017) %	(666) %	(351) %	(740) %	(277) %	(92)* %	(480) %	(445) %
Source of Information								
Public awareness campaign (TV)	76	78	72	72	81	77	76	74
Public awareness campaign (radio, newspaper)	67	67	68	65	71	66	67	69
Internet websites	67	66	69	66	70	76	70	58
Third party organization	66	71	59	67	65	62	66	70
Friends and family	64	63	66	58	75	78	64	57
Consumer magazines	63	67	56	65	60	65	64	60
Car advertisements	62	59	64	59	65	68	62	58
Driver education courses	48	59	34	50	45	54	47	48
Government pamphlet	47	57	32	46	48	40	45	54
Other	17	20	14	17	17	13	19	16

* Figures percentaged on a base of less than 100 should be interpreted with caution

6.4.3 Primary Vehicle Use

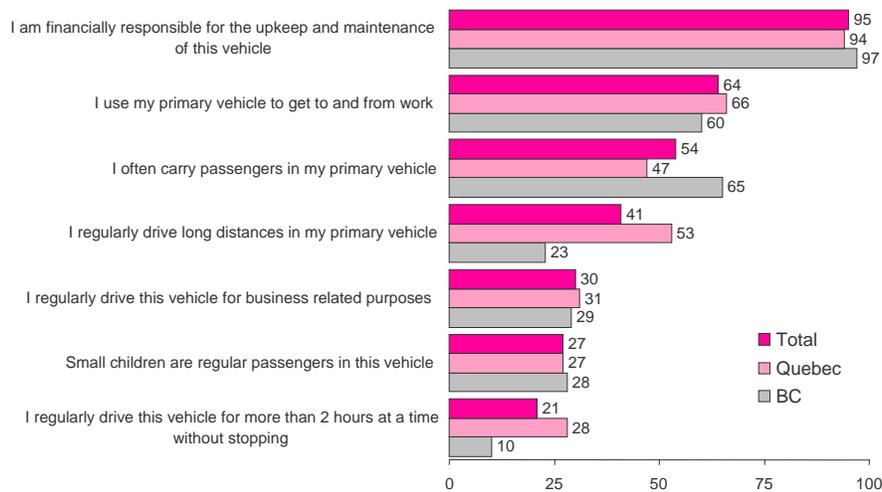
Forty one percent of ESC owners regularly drive long distances in their primary vehicle. Those who do are more likely to be male (45% vs. 34% women) and from Quebec (53% vs. 23% from BC). Even fewer drive more than two hours without taking a break (21%) with Quebec owners doing this three times as often (28% vs. 10%) as BC owners.

Two thirds of ESC owners use their vehicle to get back and forth to work (64%) with those over the age of 55 least likely to do so (28% vs. 79-80% for younger drivers). Additionally, a moderate portion of ESC owners (30%) regularly uses their vehicle for business-related purposes.

More than half of all ESC owners often carry passengers in their vehicles (54%) and one-quarter carry small children (27%). BC owners are more likely to carry passengers than Quebec owners (65% vs. 47%) and women are more likely than men to carry young children (32% vs. 25%).

The majority of ESC owners (95%) are responsible for the upkeep and maintenance of their vehicles.

Figure 48. Primary Vehicle Use



Q: I am going to read out a list of statements and please tell me whether or not it describes how you use your primary vehicle?

Base: Total ESC owners (n=1017) / Quebec ESC owners (n=666) / BC ESC owners (n=351)

2008 TNS Canadian Facts

Table 21: Primary Vehicle Use – By Region, Gender and Age

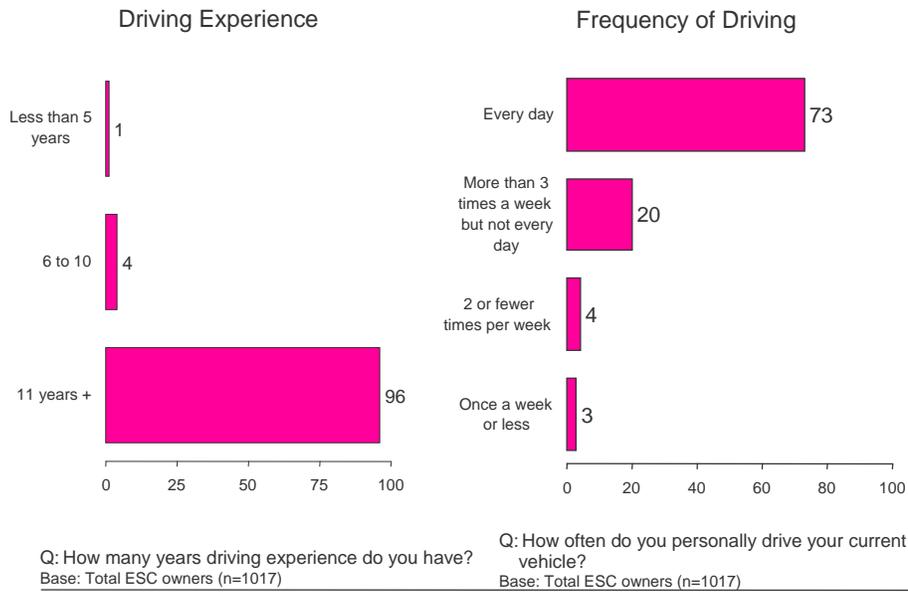
	Total Respondents							
	Total	Region		Gender		Age		
		Québec	BC	Male	Female	16-34	35-54	55+
Base = actual	(1017) %	(666) %	(351) %	(740) %	(277) %	(92)* %	(480) %	(445) %
% Yes								
I am financially responsible for the upkeep and maintenance of this vehicle	95	94	97	96	93	94	95	96
I use my primary vehicle to get to and from work	64	66	60	64	64	80	79	28
I often carry passengers in my primary vehicle	54	47	65	52	58	66	57	42
I regularly drive long distances in my primary vehicle	41	53	23	45	34	39	40	43
I regularly drive this vehicle for business related purposes	30	31	29	32	27	28	36	22
Small children are regular passengers in this vehicle	27	27	28	25	32	52	30	7
I regularly drive this vehicle for more than two hours at a time without stopping	21	28	10	24	15	13	21	25

* Figures percentaged on a base of less than 100 should be interpreted with caution

6.4.4 Driving Experience and Frequency of Driving

The majority of ESC owners (96%) are experienced drivers with over 10 years of driving experience, and tend to drive on a daily basis (73%). ESC owners from Quebec are more likely than those from BC to drive on a daily basis (79% vs. 64%).

Figure 49. Driving Experience and Frequency of Driving



6.5 Multivariate Regression Analysis

The multivariate regression analysis is used here to show which variables predict awareness of ESC and whether drivers of ESC-equipped vehicles noticed changes in their driving behaviour since they began driving their present vehicle. Given that some types of drivers may be more likely than others to take risks as a result of having ESC on their vehicle, multivariate analysis was undertaken to understand which attitudes, behaviours and demographics are most likely to predict awareness of ESC, experiencing ESC while driving, and noticing personal changes to their driving behaviour.

The form of the multivariate analysis is logistic regression. Logistic regression is a model used when the dependent variable is a two category variable (0 and 1). The underlying model is based on the idea that predicting whether a person meets the criteria (1) or not (0) needs to reflect the probability of the event rather than the degree of something and this probability is based on a logistic curve.

The accompanying tables for the regression analysis show three pieces of information for each variable entered into the model:

- The “b” is the regression coefficient. Generally speaking we are interested in the sign (positive or negative) and the magnitude or size of the coefficient. A positive regression coefficient means that that variable increases the probability of the outcome, while a negative one means that that variable decreases the probability of that outcome. The larger the coefficient the more strongly that variable influences the probability of that outcome.
- The “S.E.” is the standard error of the regression coefficient and is the key to determining whether the variable (regardless of its size or magnitude) is significant.
- The “Sig” indicates the significance of the result. A value of 0.05 or lower is essential for determining that a variable can be said to have a significant impact on the probability of an outcome.

6.5.1 Whether Noticed Changes to Driving Behaviour

The only significant variable for predicting whether someone who is aware of ESC technology had noticed a change in their driving is gender. Men are less likely than women to say they noticed a driving change. No other variables are statistically significant, which suggests that, among those who know that their vehicle is equipped with ESC, there are no particularly strong predictors of awareness of driving change.

Table 22: Logistic Regression Dependent is ‘Noticed Change to Driving Behaviour’ (only drivers who know they have ESC installed)⁷

	b	S.E.	Sig.
(Q3) Confidence in Vehicle Safety	-0.06	0.32	0.861
(Q28) Regularly drive long distances: Yes ¹	0.20	0.23	0.392
(Q28) Regularly carry passengers: Yes ¹	0.21	0.22	0.335
(Q:28) Regularly drive small children: Yes ¹	-0.18	0.25	0.480
(Q28) Regularly drive to work: Yes ¹	0.01	0.25	0.972
(Q28) Regularly drive more than 2 hours: Yes ¹	-0.08	0.27	0.779
(Q28) Regularly drive for business: Yes ¹	0.43	0.23	0.062
(Q28) Financially resp for upkeep: Yes ¹	1.05	0.60	0.080
Respondent Is a Male: Yes	-0.79	0.22	0.000
Age	-0.07	0.09	0.471
Education> High School or less ³	0.16	0.29	0.584
Education> Some University or Grad ³	0.20	0.23	0.368
Vehicle: Chrysler ⁴	0.32	0.29	0.271
Vehicle: Honda	-0.43	0.33	0.200
Vehicle: Toyota	0.40	0.36	0.265
Vehicle: GMC	-1.01	0.53	0.056
Vehicle: Ford	0.07	0.31	0.809
Vehicle: Hyundai	-0.23	0.41	0.575
Looked for ESC ⁶	0.30	0.23	0.179
Intercept	-1.86	0.77	0.015

¹ Dichotomous variable (0,1) based on recode.

² Categorical scale.

³ Those who are between high school and university are the reference category.

⁴ For vehicle manufacturer the reference category is all other companies.

⁶ Looked for ESC installed is dichotomous variable where 1 means yes and 0 means no.

⁷ 77% of the cases are correctly predicted and the Cox and Snell R² is 0.5.

6.5.2 Whether Noticed Potentially Negative Changes to Driving Behaviour

Not all forms of changes to driving behaviour would be associated with the driver adopting more potentially risky activities that are due to adapting to the vehicle’s capabilities. Looking at self-expressed driving changes, we are able to identify 68 drivers who identified a change that is, or might be, associated with behavioural adaptation.⁸ The results indicate that:

- Older Canadians are less likely than younger drivers to report noticing a potentially negative change in their driving behaviour (more confidence; driving faster etc)
- University educated drivers are more likely than less educated drivers to report a change in their driving behaviour
- Those who specifically looked for a vehicle that was equipped with ESC are more likely than those who did not to identify a potentially negative change in their driving behaviour.

Table 23: Logistic Regression Dependent is ‘Noticed Negative Change to Driving Behaviour’ (only drivers who know they have ESC installed)⁹

	b	S.E.	Sig.
(Q3) Confidence in Vehicle Safety	0.03	0.44	0.950
(Q28) Regularly drive long distances: Yes ¹	0.31	0.30	0.304
(Q28) Regularly carry passengers: Yes ¹	-0.20	0.29	0.490
(Q:28) Regularly drive small children: Yes ¹	-0.07	0.32	0.839
(Q28) Regularly drive to work: Yes ¹	-0.07	0.33	0.841
(Q28) Regularly drive more than 2 hours: Yes ¹	0.15	0.36	0.667
(Q28) Regularly drive for business: Yes ¹	0.26	0.29	0.380
(Q28) Financially resp for upkeep: Yes ¹	1.90	1.33	0.154
Respondent Is a Male: Yes	-0.30	0.28	0.288
Age	-0.37	0.12	0.002
Education> High School or less ³	0.07	0.44	0.864
Education> Some University or Grad³	0.66	0.31	0.035
Vehicle: Chrysler ⁴	0.35	0.38	0.370
Vehicle: Honda	0.05	0.43	0.907
Vehicle: Toyota	0.16	0.49	0.735
Vehicle: GMC	-2.15	1.30	0.097
Vehicle: Ford	0.23	0.39	0.562
Vehicle: Hyundai	-0.20	0.59	0.731
Looked for ESC⁶	1.17	0.29	0.000
Intercept	-3.74	1.50	0.012

¹ Dichotomous variable (0,1) based on recode.

² Categorical scale.

³ Those who are between high school and university are the reference category.

⁴ For vehicle manufacturer the reference category is all other companies.

⁶ Looked for ESC installed is dichotomous variable where 1 means yes and 0 means no.

⁸ These were captured in an open-ended question and include: ‘was more confident’; ‘safer/ felt safer’; ‘can drive faster’; and ‘able to drive in adverse weather conditions’.

⁹ 93% of the cases are correctly predicted and the Cox and Snell R² is 0.5. The model predicts no one to have noticed a negative change.

6.5.3 Whether Aware ESC in Installed

A logistic model does a better job of explaining the variation in the probability of being aware of whether one’s vehicle is equipped with ESC.¹⁰ Those who regularly drive for business, older people and those who drive a Ford vehicle are less likely to know that they have ESC installed. Men, however, are more likely than women to be aware. Parenthetically, one reason for the low awareness in owners of Ford vehicles may be that the Ford ESC brand name (AdvanceTrac™) is one of the only ones that does not contain some form of the word “stability”.

It is somewhat surprising that those who specifically looked for ESC when shopping for their vehicle are not more likely to be aware, but this is a product of the lack of variation in this question and the high degree of multicollinearity. A separate analysis of who looks for ESC vehicles would identify younger drivers, males and those who drive a lot or carry children as being more likely to have searched out an ESC-equipped vehicle.

Table 24: Logistic Regression Dependent is Noticed Change to Driving Behaviour

	b	S.E.	Sig.
(Q3) Confidence in Vehicle Safety	0.05	0.25	0.845
(Q28) Regularly drive long distances: Yes ¹	-0.21	0.17	0.224
(Q28) Regularly carry passengers: Yes ¹	0.08	0.16	0.621
(Q:28) Regularly drive small children: Yes ¹	-0.10	0.20	0.601
(Q28) Regularly drive to work: Yes ¹	0.04	0.18	0.845
(Q28) Regularly drive more than 2 hours: Yes ¹	0.40	0.21	0.059
(Q28) Regularly drive for business: Yes¹	-0.57	0.17	0.001
(Q28) Financially resp for upkeep: Yes ¹	-0.23	0.35	0.506
Respondent Is a Male: Yes	0.90	0.16	0.000
Age	-0.32	0.08	0.000
Education> High School or less ³	-0.14	0.20	0.509
Education> Some University or Grad ³	0.11	0.17	0.531
Vehicle: Chrysler ⁴	-0.29	0.22	0.180
Vehicle: Honda	0.24	0.25	0.344
Vehicle: Toyota	-0.33	0.29	0.263
Vehicle: GMC	-0.51	0.28	0.075
Vehicle: Ford	-0.64	0.23	0.006
Vehicle: Hyundai	0.18	0.31	0.566
Looked for ESC ⁶	20.92	3000.04	0.994
Intercept	1.43	0.54	0.008

¹ Dichotomous variable (0,1) based on recode.

² Categorical scale.

³ Those who are between high school and university are the reference category.

⁴ For vehicle manufacturer the reference category is all other companies.

⁶ Looked for ESC installed is dichotomous variable where 1 means yes and 0 means no.

¹⁰ 71% of the cases are correctly predicted and the Cox and Snell R² is 0.22.

6.5.4 Whether Experienced ESC While Driving

Overall, we find that, among those who know they have ESC installed, the factors most likely to be associated with being more likely to experience it are:

- Those who regularly drive long distances
- Younger people
- Males
- Toyota drivers
- Those who looked for ESC when they purchased their vehicle

Drivers who regularly drive long distances have more opportunities to experience ESC than those who do not. Younger drivers and males may drive in a manner that makes it likely that the ESC system will become activated, and therefore, will experience its effects more often than others. As for why drivers of Toyota vehicles tend to be more likely than others to have experienced ESC while driving, it may be that the effects of the specific ESC system that is used by this manufacturer are more conspicuous in nature than those in other vehicle makes.

Table 25. Logistic Regression Dependent is ‘Whether Experienced ESC’ (Among People Aware that ESC is Installed on their Vehicle)¹¹

	b	S.E.	Sig.
(Q3) Confidence in Vehicle Safety	-0.07	0.27	0.789
(Q28) Regularly drive long distances: Yes¹	0.75	0.20	0.000
(Q28) Regularly carry passengers: Yes ¹	0.12	0.18	0.502
(Q:28) Regularly drive small children: Yes ¹	0.02	0.22	0.932
(Q28) Regularly drive to work: Yes ¹	0.16	0.21	0.438
(Q28) Regularly drive more than 2 hours: Yes ¹	0.08	0.24	0.736
(Q28) Regularly drive for business: Yes ¹	0.33	0.20	0.103
(Q28) Financially resp for upkeep: Yes ¹	-0.47	0.41	0.249
Respondent Is a Male: Yes	0.46	0.19	0.017
Age	-0.17	0.08	0.044
Education> High School or less ³	-0.02	0.24	0.941
Education> Some University or Grad ³	-0.05	0.19	0.808
Vehicle: Chrysler ⁴	0.37	0.26	0.158
Vehicle: Honda	-0.24	0.26	0.358
Vehicle: Toyota	1.11	0.36	0.002
Vehicle: GMC	0.11	0.34	0.740
Vehicle: Ford	-0.18	0.27	0.505
Vehicle: Hyundai	-0.19	0.35	0.574
Looked for ESC⁶	0.42	0.20	0.033
Intercept	0.20	0.60	0.738

¹ Dichotomous variable (0,1) based on recode.

² Categorical scale.

³ Those who are between high school and university are the reference category.

⁴ For vehicle manufacturer the reference category is all other companies.

⁶ Looked for ESC installed is dichotomous variable where 1 means yes and 0 means no.

¹¹ 63% of the cases are correctly predicted and the Cox and Snell R² is 0.1.

7 CONCLUSIONS AND RECOMMENDATIONS

Collectively, results from these two driver surveys suggest that behavioural adaptation to ESC is a possibility among some groups of drivers. Based on respondents answers to survey questions, the form of this behavioural adaptation is likely to be driving faster, being more likely to drive in adverse weather conditions, driving faster in adverse weather conditions, and driving more ‘aggressively’. Of particular concern is the finding that more than half of all ESC Drivers erroneously believe that ESC will allow them to drive faster when necessary.

Logistic regression analyses suggest that certain groups of drivers may be more likely to demonstrate behavioural adaptation to ESC than others. Those with a university education and older drivers, for example, are less likely to report a negative change in their driving behaviour since driving their ESC-equipped vehicle. Men are more likely than women to know whether their own vehicle is equipped with ESC, a condition that may it more likely for them to demonstrate behavioural adaptation to ESC that offsets its safety benefits.

Finally, results from the Public Opinion survey essentially replicate those from a previous survey done in 2006 (Rudin-Brown & Burns, 2007). Canadian drivers remain very unaware of ESC and its potential benefits to road safety. There is an obvious need among all drivers for an educational and promotional campaign that is effective at bringing the benefits of ESC to our roads.

8 ACKNOWLEDGEMENTS

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10 APPENDICES

10.1 Public Opinion Survey Record of Call

Total Numbers Attempted	5648
Invalid Numbers / Sample:	2186
1. Not in service	1540
2. Non-residential	335
3. Fax/modem	305
4. Other ineligible	6
Unresolved In-Scope Sample:	2057
5. Busy	34
6. Answering Machine	565
7. No answer	797
8. Language	40
9. Household Refusal/Other	577
10. Household Contacted – Not Convenient	44
Resolved but Non-Responding:	666
11. Selected/eligible respondent not available	19
12. Appointment/Callback	89
13. Respondent Refusal/Other	539
14. Language Problem	19
Resolved and Responding	739
15. Disqualified	233
16. Completed Interview	500
17. All others	6
RESPONSE RATE	21.2%

10.2 Public Opinion Survey Weighting

Table i: Actual

	Total Canadians					
	Total	Atlantic	Québec	Ontario	Prairies	BC
	(500) #	(45) #	(84) #	(208) #	(100) #	(63) #
Male						
16-34	40	5	8	12	8	7
35-54	123	14	21	47	22	19
55+	75	5	11	41	11	7
Female						
16-34	43	1	10	16	14	2
35-54	123	13	16	56	24	14
55+	96	7	18	36	21	14

Table ii: Weighted

	Total Canadians					
	Total	Atlantic	Québec	Ontario	Prairies	BC
	(500) #	(37) #	(121) #	(192) #	(84) #	(66) #
Male						
16-34	76	5	18	29	14	10
35-54	94	7	23	36	16	12
55+	72	6	18	27	11	10
Female						
16-34	77	5	18	30	14	10
35-54	97	7	23	38	16	13
55+	84	7	21	32	13	11

10.3 Owner / Driver's Survey Record of Call

Total Numbers Attempted	2120
Invalid Numbers / Sample:	89
1. Not in service	22
2. Non-residential	51
3. Fax/modem	10
4. Other ineligible	6
Unresolved In-Scope Sample:	792
5. Busy	4
6. Answering Machine	570
7. No answer	156
8. Language	2
9. Household Refusal/Other	38
10. Household Contacted – Not Convenient	22
Resolved but Non-Responding:	206
11. Selected/eligible respondent not available	32
12. Appointment/Callback	103
13. Respondent Refusal/Other	65
14. Language Problem	6
Resolved and Responding	1033
15. Disqualified	0
16. Completed Interview	1017
17. All others	16
RESPONSE RATE	50.1%

10.4 Owner / Driver's Survey Weighting**Table iii: Actual**

	Total ESC Drivers		
	Total	Québec	BC
	(1017) #	(666) #	(351) #
Males			
16-34	52	34	18
35-54	316	231	85
55+	372	248	124
Females			
16-34	40	24	16
35-54	164	94	70
55+	73	35	38

Table iv: Weighted

	Total ESC Drivers		
	Total	Québec	BC
	(1017) #	(605) #	(412) #
Males			
16-34	97	56	41
35-54	323	205	118
55+	224	146	78
Females			
16-34	75	42	33
35-54	213	113	100
55+	85	43	42

10.5 Questionnaire—Public Survey

My name is ----- and I am calling from TNS Canadian Facts, a public opinion research company. We are conducting a survey for Transport Canada on the cars people drive and the car's features that are important to them. We are not selling anything and your responses will remain completely confidential.

May I please speak with someone in your household who is 16 years or older and who owns and drives a passenger vehicle

YES ALREADY SPEAKING TO THAT PERSON
YES SOMEONE ELSE IN THE HOUSEHOLD - TRANSFER TO NEW PERSON
NO - NOT AVAILABLE - MAKE APPOINTMENT
NO - NO-ONE IN HOUSEHOLD OWNS A MOTORIZED VEHICLE - TERMINATE.

IF SPEAKING TO NEW RESPONDENT REPEAT:

My name is ----- and I am calling from TNS Canadian Facts, a public opinion research company. We are conducting a survey for Transport Canada on the cars people drive and the cars features that are important to them. We are not selling anything and your responses will remain completely confidential.

The survey should take approximately 10 minutes of your time. Please be aware this call may be monitored for quality control purposes.

May I start now?

YES
NO - MAKE APPOINTMENT IF POSSIBLE
REFUSE - TERMINATE

SECTION 2: MAIN QUESTIONNAIRE

Q1A: S,
QT

If you were to purchase a new car tomorrow, what feature or characteristic would be most important to you when deciding which vehicle to purchase?

DO NOT READ OUT. CODE FIRST MENTION ONLY FOR Q1A,
OTHER RESPONSES CODE FOR Q1B

AL

SAFETY FEATURES THAT ARE AVAILABLE ON THE CAR
COLOUR OF THE VEHICLE
MAKE AND MODEL OF THE VEHICLE
PRICE OF THE VEHICLE
SPEED AND POWER OF THE VEHICLE
"ADDED EXTRAS" SUCH AS THE SOUND SYSTEM, GPS ETC
COMFORT AND CONVENIENCE
VEHICLE AGE
VEHICLE SIZE
NUMBER OF SEATING POSITIONS
PERFORMANCE
RIDE / HANDLING
STORAGE CAPACITY
FUEL CONSUMPTION
ENGINE AND TRANSMISSION
DOMESTIC OR IMPORTED
OFF-ROAD CAPABILITY
APPEARANCE / STYLE
POPULARITY
REPUTATION / RELIABILITY
WARRANTY / SERVICE
FINANCING
OTHER SPECIFY

Q1B: S,
QT

What other features or characteristics would be important to you?

DO NOT READ OUT. CODE ALL RESPONSES.

AL

SAFETY FEATURES THAT ARE AVAILABLE ON THE CAR
COLOUR OF THE VEHICLE

MAKE AND MODEL OF THE VEHICLE
PRICE OF THE VEHICLE
SPEED AND POWER OF THE VEHICLE
"ADDED EXTRAS" SUCH AS THE SOUND SYSTEM, GPS ETC
COMFORT AND CONVENIENCE
VEHICLE AGE
VEHICLE SIZE
NUMBER OF SEATING POSITIONS
PERFORMANCE
RIDE / HANDLING
STORAGE CAPACITY
FUEL CONSUMPTION
ENGINE AND TRANSMISSION
DOMESTIC OR IMPORTED
OFF-ROAD CAPABILITY
APPEARANCE / STYLE
POPULARITY
REPUTATION / RELIABILITY
WARRANTY / SERVICE
FINANCING
OTHER: SPECIFY

Q2

What type of vehicle do you own or drive? If you own more than one vehicle we would like to know about the one you drive the most often. Please state the manufacturer, the model and the year that the vehicle was first manufactured.

Manufacturer (e.g. GM, Toyota):

Model (e.g. Camry LS, Civic EX):

Year:

WRITE IN ANSWER.

I would now like to ask you some questions on vehicle safety

Q3: S,
QT

How confident are you in the safety of vehicles on the road in Canada today?

READ LIST. CODE ONE ANSWER ONLY.

AL Very confident
 Fairly confident
 Not very confident
 Not at all confident
 Don't Know

Q4A: S,
QT What safety features are on your own vehicle?

DO NOT READ LIST. CODE ALL THAT APPLY

AL SEATBELTS
 ANTI-LOCK BRAKING SYSTEM (ABS)
 ELECTRONIC STABILITY CONTROL (ESC)
 ROLL STABILITY CONTROL (RSC)
 ROLLOVER PROTECTION SYSTEM (ROPS)
 TRACTION CONTROL SYSTEM (TCS)
 WHIPLASH PROTECTION SYSTEM (WHIPS)
 AIRBAGS (FRONT / SIDE)
 CHILD SEATS, ANCHORAGES
 DAYTIME RUNNING LIGHTS (DRL)
 CENTRE HIGH MOUNTED BRAKE LIGHT
 AUTOMATIC COLLISION NOTIFICATION (EG ONSTAR)
 BACK-UP AID
 SEAT BELT PRETENSIONERS
 HEAD RESTRAINTS
 OTHER SPECIFY
 Don't Know

IF RESPONDENT PROVIDED AN ANSWER TO Q4A ASK Q4B.

Q4B: S,
QT Can you think of any safety features that are not on your vehicle?

DO NOT READ LIST. CODE ALL THAT APPLY

AL SEATBELTS
 ANTI-LOCK BRAKING SYSTEM (ABS)
 ELECTRONIC STABILITY CONTROL (ESC)
 ROLL STABILITY CONTROL (RSC)
 ROLLOVER PROTECTION SYSTEM (ROPS)

TRACTION CONTROL SYSTEM (TCS)
WHIPLASH PROTECTION SYSTEM (WHIPS)
AIRBAGS (FRONT / SIDE)
CHILD SEATS, ANCHORAGES
DAYTIME RUNNING LIGHTS (DRL)
CENTRE HIGH MOUNTED BRAKE LIGHT
AUTOMATIC COLLISION NOTIFICATION (EG ONSTAR)
BACK-UP AID
SEAT BELT PRETENSIONERS
HEAD RESTRAINTS
OTHER SPECIFY
Don't Know

Q5: S,
QT

I am now going to read you a list of statements that other people have made about safety features in vehicles. Please let me know the extent to which you agree or disagree with each statement.

Do you strongly agree, neither agree nor disagree, somewhat disagree, or strongly disagree that..(INSERT MT)

AL

Strongly agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Strongly disagree
Don't Know

ROTATE STATEMENTS

Vehicle safety improvements make it possible to drive at greater speeds.

With recent vehicle safety improvements, drivers do not have to worry as much when driving on slippery road surfaces such as icy roads.

It is important to have the most up-to-date safety features on my car.

Some drivers rely on the safety features in their vehicles too much and do not pay enough attention to their driving.

SECTION 3: ESC TECHNOLOGY

We are interested in knowing your views on a new in-vehicle safety system. The basic mechanics of this system work as follows: A microcomputer in the car constantly monitors the driver's steering and the direction that the car is travelling.

In an emergency situation, if the sensors determine that the car is beginning to spin or skid, strategic braking on different wheels is used to bring the car back under the driver's control.

Because it intervenes before a loss of control occurs, this safety system has the potential to prevent certain types of crash, such as running off the road, rollover crashes, and collisions with obstacles.

The technology is called Electronic Stability Control, or ESC, but may also be known by its many different brand names. IF NAME OF VEHICLE MANUFACTURER GIVEN AT Q2 READ: For example, for <insert vehicle manufacturer of R's vehicle>, it is referred to as <insert ESC name>.

INSTRUCTION: IF NECESSARY, OFFER TO RE-READ THIS DEFINITION. THROUGHOUT SURVEY, INTERVIEWER TO BE ABLE TO LINK BACK TO THIS DEFINITION AND RE-READ TO RESPONDENT IF REQUIRED.

List of ESC brand names:

Manufacturer_ESC is called:

Acura_	Vehicle Stability Assist (VSA)
Audi_	Electronic Stability Program (ESP)
BMW_	Dynamic Stability Control (DSC)
Buick_	StabiliTrak
Cadillac_	StabiliTrak
Chevrolet_	StabiliTrak ('Active Handling' for Corvette)
Chrysler_	Electronic Stability Program (ESP)
Ford_	AdvanceTrac
GMC_	StabiliTrak
Honda_	Vehicle Stability Assist (VSA)
Hyundai_	Electronic Stability Program (ESP)
Infiniti_	Vehicle Dynamic Control (VDC)
Jaguar_	Dynamic Stability Control (DSC)
Jeep_	Electronic Stability Program (ESP)
Kia_	Electronic Stability Program (ESP)
Land Rover_	Dynamic Stability Control (DSC)
Lexus_	Vehicle Stability Control (VSC)
Lincoln_	AdvanceTrac
Mazda_	Dynamic Stability Control
Mercedes-Benz_	Electronic Stability Program (ESP)

Built-in stability and control

Mercury_	AdvanceTrac
Mini_	Dynamic Stability Control (DSC)
Mitsubishi_	Mitsubishi Active Skid and Traction Control (M-ASTC)
Nissan_	Vehicle Dynamic Control (VDC)
Pontiac_	StabiliTrak
Porsche_	Porsche Stability Management (PSM)
Saab_	Electronic Stability Program (ESP)
Saturn_	StabiliTrak
Subaru_	Vehicle Dynamics Control (VDC)
Suzuki_	Electronic Stability Program (ESP)
Toyota_	Vehicle Stability Control (VSC)
Volkswagen_	Electronic Stabilization Program (ESP)
Volvo_	Dynamic Stability and Traction Control (DSTC)

Q6: S,
QT Before today, had you heard of this technology?

DO NOT READ LIST

AL YES
NO
Don't Know

IF ESC NOT STATED AS SAFETY FEATURE CURRENTLY ON OWN VEHICLE (ESC NOT MENTIONNED AT Q4A OR ESC NOT GIVEN AS RESPONSE TO Q4B) AND HAVE HEARD OF ESC TECHNOLOGY (YES AT Q6), ASK Q7.

Q7: S,
QT Do you currently have ESC (Electronic Stability Control) installed on the main vehicle that you own and drive?

DO NOT READ LIST

AL YES
NO
Don't Know

SECTION 4: ESC USERS

IF ESC INSTALLED ON VEHICLE (ESC MENTIONNED AT Q4A OR YES AT Q7) ASK SECTION 4. OTHERS SKIP TO SECTION 5.

Q8: S,

Built-in stability and control

QT When you were looking to purchase your present vehicle, did you specifically look for a vehicle that came equipped with Electronic Stability Control or ESC Technology?

DO NOT READ LIST

AL YES
NO
Don't Know

Q9: S,
QT Compared to other aspects of the purchasing decision, how important was it to have ESC technology available on this vehicle?

READ LIST. DO NOT READ DON'T KNOW.

AL Very important
Fairly important
Not very important
Not at all important
Don't Know

Q10A: S,
QT Have you ever experienced ESC while driving?

DO NOT READ LIST

AL YES
NO
Don't Know

IF YES AT Q10A ASK Q10B. IF NO OR DON'T KNOW GO TO Q11.

Q10B How did you know it was active (i.e. what feedback / effects did you notice?)
WRITE IN ANSWER.

Q11: S,
QT Overall, would you say that the ESC technology installed on your vehicle has made it a lot safer to drive your vehicle, a little safer to drive, a little more dangerous to drive or a lot more dangerous to drive?

AL A lot safer to drive
A little safer to drive
A little more dangerous to drive

A lot more dangerous to drive
It has had no effect
Don't Know

Q12: S,
QT

Are there any disadvantages of ESC? If so, what are they?

AL

OTHER SPECIFY
NO DISADVANTAGES
Don't Know

SECTION 5: GENERAL VIEWS ABOUT ESC AND THE
PURCHASE DECISION

IF NON-OWNERS OF ESC (ESC NOT MENTIONED AT Q4A,
OR ESC MENTIONED AT Q4B, OR NO AT Q7, ASK Q13A AND
Q13B. ALL OTHERS TO Q14.

Q13A: S,
QT

What do you feel would be the benefits of having ESC technology
installed on your vehicle?

IF RESPONDENT STATES "IMPROVED SAFETY", PROBE TO
FIND OUT WHAT THEY MEAN BY THIS.

AL

NO BENEFITS
OTHER SPECIFY
Don't Know

Q13B: S,
QT

Do you think there might be any disadvantages of having ESC
technology installed on your vehicle? If so, what are they?

AL

NO DISADVANTAGES
OTHER SPECIFY
Don't Know

ASK ALL

Q14: S,

QT How important do you feel it is to have ESC installed as standard equipment on all new vehicles sold in Canada today?

READ LIST. ONE ANSWER ONLY. DO NOT READ DON'T KNOW

AL Very important
Fairly important
Not very important
Not at all important
Don't Know

SECTION 6: NEXT VEHICLE PURCHASE

Q15: S,
QT How likely do you think you will be to acquire a new vehicle in the next 12 months?

READ LIST. DO NOT READ DON'T KNOW

AL Very likely
Fairly likely
Not very likely
Not at all likely
Don't Know

IF VERY OR FAIRLY LIKELY AT Q15, ASK Q16 - Q 18. ALL OTHERS GO TO SECTION 7

Q16: S,
QT Which of the following best describes the type of vehicle you may purchase?

AL Brand new - I will be the first registered driver
Second-hand or used - the car will have had previous registered drivers

Q17: S,
QT How important would it be to have ESC technology installed on the vehicle?

READ LIST. DO NOT READ DON'T KNOW

AL Very important
Fairly important

Not very important
Not at all important
Don't Know

PRICE POINTS TESTED USING 5-POINT DEMAND CURVE:
\$500, \$1,000, \$1,500, \$2,000, \$2,500.
RANDOMLY ASSIGN STARTING POINT

RANDOMLY ASSIGN STARTING POINT

IF STARTING PRICE=\$500
Q18A1-Q18A5

IF STARTING PRICE=\$1,000
Q18B1-Q18B5

IF STARTING PRICE=\$1,500
Q18C1-Q18C5

IF STARTING PRICE=\$2,000
Q18D1-Q18D5

IF STARTING PRICE=\$2,500
Q18E1-Q18E5

Q18A1: S,
QT

If ESC was available on the next car you purchase, would you be willing to pay...\$500 to have this technology installed?

AL

YES
NO

IF YES AT Q18A1 GO TO Q18A2...Q18A5.
IF NO AT Q18A1 GO TO Q21 (TERMINATE DEMAND SECTION); PERSON IS ADVERSE TO PRICE

SECTION 7: PERCEIVED IMPACT OF ESC

ASK ALL

Q21: S,
QT

How do you think the installation of ESC technology on vehicles would impact people's driving behaviour and their overall driving experience? We are interested in your views on this whether they are positive or negative.

IF NECESSARY: I can read you the definition of ESC technology to you again if you would like me to.

AL

OPEN

Don't Know

IF NON-OWNERS OF ESC (ESC NOT MENTIONED AT Q4A, OR ESC MENTIONED AT Q4B, OR NO AT Q7, ASK Q22 . OTHERS SKIP TO Q23

Q22: S,
QT

I am now going to read you a list of statements that other people have said about ESC technology and the effects that it has on drivers. Please let me know the extent to which you agree or disagree with each statement.

Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement (INSERT MT)?

AL

Strongly agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Strongly disagree

Don't Know

ROTATE STATEMENTS

- i)_ESC gives drivers more confidence to choose to drive in adverse weather conditions.
- ii)_ESC gives drivers more confidence to drive faster.
- iii)_ESC allows drivers to drive closer to the vehicle in front of them
- iv)_ESC means that vehicles will not skid or slip in icy conditions regardless of the speed the vehicle is travelling
- v)_ESC allows drivers to better manoeuvre in heavy traffic.

- vi) ESC gives drivers more confidence when driving in adverse weather conditions.

- vii) ESC allows drivers to take corners faster,

- viii) ESC allows drivers to drive more aggressively

- ix) ESC allows drivers to stop faster when necessary

- x) ESC allows drivers to brake later during an emergency manoeuvre.

OWNERS OF ESC TECHNOLOGY (ESC MENTIONED AT Q4A OR YES AT Q8), ASK Q23. ALL OTHERS TO Q24

Q23: S,
QT

I am now going to read you a list of statements that other people have said about ESC technology and the effects that it has on drivers. Please let me know the extent to which you agree or disagree with each statement.

Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement (INSERT MT)?

- AL
- Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
 - Don't Know

ROTATE STATEMENTS

- i)_ESC gives me more confidence to choose to drive in adverse weather conditions.
- ii)_ESC gives me more confidence to drive faster.
- iii)_ESC allows me to drive closer to the vehicle in front of them
- iv)_ESC means that my vehicle will not skid or slip in icy conditions regardless of the speed the vehicle is travelling
- v)_ESC allows me to better manoeuvre in heavy traffic.

- vi) ESC gives me more confidence when driving in adverse weather conditions.

- vii) ESC allows me to take corners faster,

- viii) ESC allows me to drive more aggressively

- ix) ESC allows me to stop faster when necessary

- x) ESC allows me to brake later during an emergency manoeuvre.

Q25: S,
QT

ASK ALL

From which of the following sources of information are you likely to learn about vehicle safety?

READ LIST. SELECT ALL THAT APPLY

AL

- Friends and family
- Car advertisements
- Driver education courses
- Public awareness campaign (TV)
- Public awareness campaign (radio, newspaper)
- Consumer magazines
- Internet websites
- Government pamphlet
- Third party organization (e.g.CAA)
- Other

SECTION 8: VEHICLE OWNERSHIP AND USE

Q27: S,
QT

How many years driving experience do you have? This is the number of years you have been driving in total, not just the number of years you have been driving your current vehicle?

AL

Less than 2 years
2 to 5 years
6 to 10 years
11 years + experience
Don't Know

Q28: S,
QT

I am going to read out a list of statements and please tell me whether or not it describes how you use your primary vehicle?

READ LIST (MT)

CODE YES/NO TO EACH STATEMENT

AL

YES
NO
Don't Know

i)_I regularly drive long distances in my primary vehicle

ii)_I often carry passengers in my primary vehicle

iii)_Small children are regular passengers in this vehicle

iv)_I use my primary vehicle to get to and from work

v)_I regularly drive this vehicle for more than 2 hours at a time without stopping

vii)_I am financially responsible for the upkeep and maintenance of this vehicle

viii)_I regularly drive this vehicle for business related purposes

Q29: S,

QT How often do you personally drive your current vehicle?

READ LIST

AL Every day
More than 3 times a week but not every day
Two or fewer times per week
Once a week
Two to three times a month
Less often
Don't Know

SECTION 9: DEMOGRAPHIC SECTION

ASK ALL

The last few questions are for statistical purposes only. Again, your answers are confidential and will only be used when combined with those of other people that we speak to.

QA: S,
QT

RECORD GENDER (DO NOT ASK):

AL MALE
FEMALE

Q31: S,
QT

What is the highest level of formal education that you have completed?

DO NOT READ LIST

AL SOME GRADE/PRIMARY SCHOOL
GRADUATED GRADE/PRIMARY SCHOOL
SOME HIGH/SECONDARY SCHOOL
GRADUATED HIGH/SECONDARY SCHOOL
SOME COMMUNITY COLLEGE/TECHNICAL COLLEGE/CEGEP
GRADUATED SOME COMMUNITY COLLEGE/TECHNICAL COLLEGE/CEGEP
SOME UNDERGRADUATE UNIVERSITY
GRADUATED UNDERGRADUATE UNIVERSITY
SOME POST-GRADUATE UNIVERSITY
GRADUATED POST-GRADUATE UNIVERSITY
Other

Don't Know

QB: S,
QT

As I am talking to many people of different ages, I just need to confirm the age group in which you would fall. Would it be.....?

AL

16 to 24

25 to 34

35 to 44

45 to 54

55 to 64

65+

Refused

Q33: S,
QT

RECORD FROM TELEPHONE NUMBER / SAMPLE FILE

AL

Urban versus rural

Province

Major metropolitan area

That is the end of the survey. Thank you for participating.

Questionnaire—ESC Owner/Driver Survey

May I speak withINSERT NAME HERE

My name is ----- and I am calling from TNS Canadian Facts, a public opinion research company. You recently contacted us and agreed to participate in a short survey being conducted by Transport Canada on the cars people drive and the car features that are important to them.

YES ALREADY SPEAKING TO THAT PERSON
NO - NOT AVAILABLE - MAKE APPOINTMENT

The survey should take approximately 10 minutes of your time. Please be aware this call may be monitored for quality control purposes.

May I start now?

YES
NO - MAKE APPOINTMENT IF POSSIBLE
REFUSE – TERMINATE

SECTION 2: MAIN QUESTIONNAIRE

Q1A: S,
QT

If you were to purchase a new car tomorrow, what feature or characteristic would be most important to you when deciding which vehicle to purchase?

DO NOT READ OUT. CODE FIRST MENTION ONLY FOR Q1A, OTHER RESPONSES CODE FOR Q1B

AL

SAFETY FEATURES THAT ARE AVAILABLE ON THE CAR
COLOUR OF THE VEHICLE
MAKE AND MODEL OF THE VEHICLE
PRICE OF THE VEHICLE
SPEED AND POWER OF THE VEHICLE
"ADDED EXTRAS" SUCH AS THE SOUND SYSTEM, GPS ETC
COMFORT AND CONVENIENCE
VEHICLE AGE
VEHICLE SIZE
NUMBER OF SEATING POSITIONS
PERFORMANCE
RIDE / HANDLING
STORAGE CAPACITY
FUEL CONSUMPTION
ENGINE AND TRANSMISSION
DOMESTIC OR IMPORTED
OFF-ROAD CAPABILITY
APPEARANCE / STYLE
POPULARITY
REPUTATION / RELIABILITY
WARRANTY / SERVICE
FINANCING
OTHER SPECIFY

Q1B: M,
QT

What other features or characteristics would be important to you?

DO NOT READ OUT. CODE ALL RESPONSES.

AL

SAFETY FEATURES THAT ARE AVAILABLE ON THE CAR
COLOUR OF THE VEHICLE
MAKE AND MODEL OF THE VEHICLE
PRICE OF THE VEHICLE
SPEED AND POWER OF THE VEHICLE
"ADDED EXTRAS" SUCH AS THE SOUND SYSTEM, GPS ETC
COMFORT AND CONVENIENCE
VEHICLE AGE
VEHICLE SIZE
NUMBER OF SEATING POSITIONS
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STORAGE CAPACITY
FUEL CONSUMPTION
ENGINE AND TRANSMISSION
DOMESTIC OR IMPORTED
OFF-ROAD CAPABILITY
APPEARANCE / STYLE
POPULARITY
REPUTATION / RELIABILITY
WARRANTY / SERVICE
FINANCING
OTHER: SPECIFY

Built-in **stability** and **control**

Q2 What type of vehicle do you own or drive? If you own more than one vehicle we would like to know about the one you drive the most often. Please state the manufacturer, the model and the year that the vehicle was manufactured.

Manufacturer (e.g. GM, Toyota):

Model (e.g. Camry LS, Civic EX):

Year:

WRITE IN ANSWER.

Q2B How long have you owned this vehicle?

INSTRUCTION TO PROGRAMMER: PLEASE PROGRAM SO THAT INTERVIEWER CAN ENTER MONTHS AND YEARS

I would now like to ask you some questions on vehicle safety

Q3: S,
QT How confident are you in the safety of vehicles on the road in Canada today?

READ LIST. CODE ONE ANSWER ONLY.

AL Very confident
 Fairly confident
 Not very confident
 Not at all confident
 Don't Know

Q4A: M,
QT

What safety features are on your own vehicle?

DO NOT READ LIST. CODE ALL THAT APPLY

AL

SEATBELTS

ANTI-LOCK BRAKING SYSTEM (ABS)

ELECTRONIC STABILITY CONTROL (ESC)

ROLL STABILITY CONTROL (RSC)

ROLLOVER PROTECTION SYSTEM (ROPS)

TRACTION CONTROL SYSTEM (TCS)

WHIPLASH PROTECTION SYSTEM (WHIPS)

AIRBAGS (FRONT / SIDE)

CHILD SEATS, ANCHORAGES

DAYTIME RUNNING LIGHTS (DRL)

CENTRE HIGH MOUNTED BRAKE LIGHT

AUTOMATIC COLLISION NOTIFICATION (EG ONSTAR)

BACK-UP AID

SEAT BELT PRETENSIONERS

HEAD RESTRAINTS

OTHER SPECIFY

Don't Know

IF RESPONDENT PROVIDED AN ANSWER TO Q4A ASK Q4B.

Q4B: M,
QT

Can you think of any safety features that are not on your vehicle?

DO NOT READ LIST. CODE ALL THAT APPLY

AL

SEATBELTS

ANTI-LOCK BRAKING SYSTEM (ABS)

ELECTRONIC STABILITY CONTROL (ESC)

ROLL STABILITY CONTROL (RSC)

ROLLOVER PROTECTION SYSTEM (ROPS)

TRACTION CONTROL SYSTEM (TCS)

WHIPLASH PROTECTION SYSTEM (WHIPS)

AIRBAGS (FRONT / SIDE)

CHILD SEATS, ANCHORAGES

DAYTIME RUNNING LIGHTS (DRL)

CENTRE HIGH MOUNTED BRAKE LIGHT

AUTOMATIC COLLISION NOTIFICATION (EG ONSTAR)

BACK-UP AID

SEAT BELT PRETENSIONERS

HEAD RESTRAINTS

OTHER SPECIFY

Don't Know

Q5: S,
QT

I am now going to read you a list of statements that other people have made about safety features in vehicles. Please let me know the extent to which you agree or disagree with each statement.

Do you strongly agree, neither agree nor disagree, somewhat disagree, or strongly disagree that..(INSERT MT)

AL

Strongly agree
Somewhat agree
Neither agree nor disagree
Somewhat disagree
Strongly disagree
Don't Know

ROTATE STATEMENTS

Vehicle safety improvements make it possible to drive at greater speeds.

With recent vehicle safety improvements, drivers do not have to worry as much when driving on slippery road surfaces such as icy roads.

It is important to have the most up-to-date safety features on my car.

Some drivers rely on the safety features in their vehicles too much and do not pay enough attention to their driving.

SECTION 3: ESC TECHNOLOGY

We are interested in knowing your views on a new in-vehicle safety system. The basic mechanics of this system work as follows: A microcomputer in the car constantly monitors the driver's steering and the direction that the car is travelling. In an emergency situation, if the sensors determine that the car is beginning to spin or skid, strategic braking on different wheels is used to bring the car back under the driver's control.

Because it intervenes before a loss of control occurs, this safety system has the potential to prevent certain types of crash, such as running off the road, rollover crashes, and collisions with obstacles.

The technology is called Electronic Stability Control, or ESC, but may also be known by its many different brand names. IF NAME OF VEHICLE MANUFACTURER GIVEN AT Q2 READ: For example, for <insert vehicle manufacturer of R's vehicle>, it is referred to as <insert ESC name>.

INSTRUCTION: IF NECESSARY, OFFER TO RE-READ THIS DEFINITION. THROUGHOUT SURVEY, INTERVIEWER TO BE ABLE TO LINK BACK TO THIS DEFINITION AND RE-READ TO RESPONDENT IF REQUIRED.

List of ESC brand names:

Manufacturer_ESC is called:

Acura_ Vehicle Stability Assist (VSA)
Audi_ Electronic Stability Program (ESP)
BMW_ Dynamic Stability Control (DSC)
Buick_ StabiliTrak
Cadillac_ StabiliTrak
Chevrolet_ StabiliTrak ('Active Handling' for Corvette)
Chrysler_ Electronic Stability Program (ESP)
Ford_ AdvanceTrac
GMC_ StabiliTrak
Honda_ Vehicle Stability Assist (VSA)
Hyundai_ Electronic Stability Program (ESP)
Infiniti_ Vehicle Dynamic Control (VDC)
Jaguar_ Dynamic Stability Control (DSC)
Jeep_ Electronic Stability Program (ESP)
Kia_ Electronic Stability Program (ESP)
Land Rover_ Dynamic Stability Control (DSC)
Lexus_ Vehicle Stability Control (VSC)
Lincoln_ AdvanceTrac
Mazda_ Dynamic Stability Control
Mercedes-Benz_ Electronic Stability Program (ESP)

Mercury_ AdvanceTrac
Mini_ Dynamic Stability Control (DSC)
Mitsubishi_ Mitsubishi Active Skid and Traction Control (M-ASTC)
Nissan_ Vehicle Dynamic Control (VDC)
Pontiac_ StabiliTrak
Porsche_ Porsche Stability Management (PSM)
Saab_ Electronic Stability Program (ESP)
Saturn_ StabiliTrak
Subaru_ Vehicle Dynamics Control (VDC)
Suzuki_ Electronic Stability Program (ESP)
Toyota_ Vehicle Stability Control (VSC)
Volkswagen_ Electronic Stabilization Program (ESP)
Volvo_ Dynamic Stability and Traction Control (DSTC)

Q6: S,
QT Before today, had you heard of this technology?

DO NOT READ LIST

AL YES
NO
Don't Know

IF ESC NOT STATED AS SAFETY FEATURE CURRENTLY ON OWN VEHICLE (ESC NOT MENTIONED AT Q4A OR ESC NOT GIVEN AS RESPONSE TO Q4B) AND HAVE HEARD OF ESC TECHNOLOGY (YES AT Q6), ASK Q7.

Q7: S,
QT Do you currently have ESC (Electronic Stability Control) installed on the main vehicle that you own and drive?

DO NOT READ LIST

AL YES – GO TO Q7C
NO – GO TO Q7B
DON'T KNOW – GO TO Q7B

ASK Q7B IF NO OR DON'T KNOW AT Q7

Q7B Do any of the vehicles in your household have ESC installed on them?

AL YES
NO
DON'T KNOW

SKIP TO SECTION 5 IF Q7B WAS ASKED

Q7c What about your previous vehicle? Did it have ESC installed on it?

YES
NO
DON'T KNOW

SECTION 4: ESC USERS

Q8: S,
QT

When you were looking to purchase your present vehicle, did you specifically look for a vehicle that came equipped with Electronic Stability Control or ESC Technology?

DO NOT READ LIST

AL

YES
NO
Don't Know

Q9: S,
QT

Compared to other aspects of the purchasing decision, how important was it to have ESC technology available on this vehicle?

READ LIST. DO NOT READ DON'T KNOW.

AL

Very important
Fairly important
Not very important
Not at all important
Don't Know

Q10A: S,
QT

Have you ever experienced ESC while driving?

DO NOT READ LIST

AL

YES
NO
Don't Know

IF YES AT Q10A ASK Q10B. IF NO OR DON'T KNOW GO TO Q11.

Q10B

How did you know it was active (i.e. what feedback / effects did you notice?)
WRITE IN ANSWER.

Q10I

Q11: S,
QT

Overall, would you say that the ESC technology installed on your vehicle has made it a lot safer to drive your vehicle, a little safer to drive, a little more dangerous to drive or a lot more dangerous to drive?

AL
A lot safer to drive
A little safer to drive
A little more dangerous to drive
A lot more dangerous to drive
It has had no effect
Don't Know

Q11B
QT How confident are you that your ESC would work in an emergency situation?

AL
Very confident
Fairly confident
Not very confident
Not at all confident
Don't Know

Q12: S,
QT Are there any disadvantages of ESC? If so, what are they?

AL
OTHER SPECIFY
NO DISADVANTAGES
Don't Know

SECTION 5: GENERAL VIEWS ABOUT ESC AND THE PURCHASE DECISION

ASK ALL

Q14: S,
QT How important do you feel it is to have ESC installed as standard equipment on all new vehicles sold in Canada today?

READ LIST. ONE ANSWER ONLY. DO NOT READ DON'T KNOW

AL
Very important
Fairly important
Not very important
Not at all important
Don't Know

SECTION 6: NEXT VEHICLE PURCHASE

Q17: S,
QT How important would it be to have ESC technology installed on your next vehicle?

READ LIST. DO NOT READ DON'T KNOW

AL Very important
Fairly important
Not very important
Not at all important
Don't Know

SECTION 7: PERCEIVED IMPACT OF ESC

Q21: S,
QT

How do you think the installation of ESC technology on vehicles impacts people's driving behaviour and their overall driving experience? We are interested in your views on this whether they are positive or negative.

IF NECESSARY: I can read you the definition of ESC technology to you again if you would like me to.

AL OPEN
Don't Know

IF NON-OWNERS OF ESC (ESC NOT MENTIONED AT Q4A, OR ESC MENTIONED AT Q4B, OR NO AT Q7, ASK Q22. OTHERS SKIP TO Q23 IF RELEVANT.

Q22: S,

QT I am now going to read you a list of statements that other people have said about ESC technology and the effects that it has on drivers. Please let me know the extent to which you agree with each statement.

Would you say you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement (INSERT MT)?

AL STRONGLY AGREE
SOMEWHAT AGREE

NEITHER AGREE NOR DISAGREE

SOMEWHAT DISAGREE

STRONGLY DISAGREE

DON'T KNOW

ROTATE STATEMENTS

i)_ESC gives drivers more confidence to choose to drive in adverse weather conditions.

ii)_ESC gives drivers more confidence to drive faster.

iii)_ESC allows drivers to drive closer to the vehicle in front of them

iv)_ESC means that vehicles will not skid or slip in icy conditions regardless of the speed the vehicle is travelling

v)_ESC allows drivers to better manoeuver in heavy traffic.

vi) ESC gives drivers more confidence when driving in adverse weather conditions.

vii) ESC allows drivers to take corners faster,

viii) ESC allows drivers to drive more aggressively

ix) ESC allows drivers to stop faster when necessary

x) ESC allows drivers to apply the brakes later.

ASK ALL ESC DRIVERS (ESC AT Q4A OR YES AT Q7)

Q23: S,
QT

I am now going to read you a list of statements that other people have said about ESC technology and the effects that it has on drivers. Please let me know the extent to which you agree or disagree with each statement.

Would you say that you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement (INSERT MT)?

AL

STRONGLY AGREE

SOMEWHAT AGREE

NEITHER AGREE NOR DISAGREE

SOMEWHAT DISAGREE
STRONGLY DISAGREE
DON'T KNOW

ROTATE STATEMENTS

- i)_ESC gives me more confidence to choose to drive in adverse weather conditions.
- ii)_ESC gives me more confidence to drive faster.
- iii)_ESC allows me to drive closer to the vehicle in front of them
- iv)_ESC means that my vehicle will not skid or slip in icy conditions regardless of the speed the vehicle is travelling
- v)_ESC allows me to better maneuver in heavy traffic.

- vi) ESC gives me more confidence when driving in adverse weather conditions.

- vii) ESC allows me to take corners faster.

- viii) ESC allows me to drive more aggressively

- ix) ESC allows me to stop faster when necessary

- x) ESC allows me to apply the brake later.

23A Did you notice any changes in your driving when you first began driving your current vehicle?

YES – go to 23b
NO – go to 25
DON'T KNOW

23B What changes did you notice?

OPEN

23C How long did these changes to your driving behaviour last?

A Few Days
A Few Weeks
A Few Months
Changes Still Exist
DON'T KNOW

ASK ALL

Q25: S,

QT From which of the following sources of information are you likely to learn about vehicle safety?

READ LIST. SELECT ALL THAT APPLY
ROTATE

- AL Friends and family
Car advertisements
Driver education courses
Public awareness campaign (TV)
Public awareness campaign (radio, newspaper)
Consumer magazines
Internet websites
Government pamphlet
Third party organization (e.g.CAA)
Other

SECTION 8: VEHICLE OWNERSHIP AND USE

Q27: S,
QT

How many years driving experience do you have? This is the number of years you have been driving in total, not just the number of years you have been driving your current vehicle?

- AL Less than 2 years
2 to 5 years
6 to 10 years
11 years + experience
Don't Know

Q28: S,
QT

I am going to read out a list of statements and please tell me whether or not it describes how you use your primary vehicle?

READ LIST (MT)

CODE YES/NO TO EACH STATEMENT

- AL YES
NO
Don't Know

Built-in **stability** and **control**

- i)_I regularly drive long distances in my primary vehicle
- ii)_I often carry passengers in my primary vehicle
- iii)_Small children are regular passengers in this vehicle
- iv)_I use my primary vehicle to get to and from work
- v)_I regularly drive this vehicle for more than 2 hours at a time without stopping
- vii)_I am financially responsible for the upkeep and maintenance of this vehicle
- viii)_I regularly drive this vehicle for business related purposes

Q29: S,
QT

How often do you personally drive your current vehicle?

READ LIST

AL

- Every day
- More than 3 times a week but not every day
- Two or fewer times per week
- Once a week
- Two to three times a month
- Less often
- Don't Know

SECTION 9: DEMOGRAPHIC SECTION

ASK ALL

The last few questions are for statistical purposes only. Again, your answers are confidential and will only be used when combined with those of other people that we speak to.

QA: S,
QT

RECORD GENDER (DO NOT ASK):

AL

- MALE
- FEMALE

Q31: S,

QT What is the highest level of formal education that you have completed?

DO NOT READ LIST

AL SOME GRADE/PRIMARY SCHOOL
GRADUATED GRADE/PRIMARY SCHOOL
SOME HIGH/SECONDARY SCHOOL
GRADUATED HIGH/SECONDARY SCHOOL
SOME COMMUNITY COLLEGE/TECHNICAL COLLEGE/CEGEP
GRADUATED COMMUNITY COLLEGE/TECHNICAL COLLEGE/CEGEP
SOME UNDERGRADUATE UNIVERSITY
GRADUATED UNDERGRADUATE UNIVERSITY
SOME POST-GRADUATE UNIVERSITY
GRADUATED POST-GRADUATE UNIVERSITY
Other
Don't Know

QB: S,
QT As I am talking to many people of different ages, I just need to confirm the age group in which you would fall. Would it be.....?

AL 16 to 24
25 to 34
35 to 44
45 to 54
55 to 64
65+
Refused

Q33: S,
QT RECORD FROM TELEPHONE NUMBER / SAMPLE FILE

AL Urban versus rural
Province
Major metropolitan area

That is the end of the survey. Thank you for participating.