



To gauge the attitude, behaviour and knowledge of students in  
the age group of 18 to 30 in relation to drinking and driving

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of the requirement for the degree of MSc in Environmental, Health and Safety  
Management.

# **Declaration**

I, Martha Smithers, hereby declare that this material, which I now submit in part fulfilment for the award of MSc in Environmental, Health and Safety Management, is entirely my own work and has not been taken from the work of others, save and to the extent such work has been cited and acknowledged within the text of this dissertation.

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# Abstract

The purpose of this study is to gauge the attitude, behaviour and knowledge of students in the age group of 18 to 30 in relation to drinking and driving. The student population was focused on as they are a high risk group on Irish roads. The topic of drink driving was brought to the forefront in Ireland with the introduction of the 2010 Road Traffic Act. This introduced the reduction in the legal BAC limit from 80mg/100ml to 50mg/100ml for normal drivers and 20mg/100ml for specified drivers to come in line with the rest of Europe. The RSA are aiming to reduce the number of road deaths in Ireland by 30% and published the road safety strategy plan with a model for change identifying the areas of education and enforcement to aid in changing the attitudes of behaviours of Irish road users. These areas were focused on among the student population to gauge their knowledge of drink driving their attitude and behaviour towards drink driving and also the impact that enforcement has on them.

The methods used in this study was observation of MAT checkpoints, a survey aimed towards students and semi-structured interviews. From the observation made at the MAT checkpoints there was a general attitude of acceptance from road users towards enforcement and indicating that the implementation of the new limits has been effective with a 100% pass rate observed

In the area of knowledge of the new legal limits the overall majority of students underestimated the new limits with just under half of students knowing the correct limits for specified and normal drivers there is clearly a lack of knowledge in relation to the new legal limits which have been a focus of media campaigns. The results showed that there is an increase from the younger age brackets to the older age brackets of students who have driven under the influence of alcohol. This result indicates the younger age brackets are less likely to drink and drive, if this age group is targeted correctly then the likelihood of them committing the offence in the future will decrease. The main deterrent is the area of drinking and driving is directly regarding the enforcement of law with the personal impact of the fear of penalties and prosecution being the most prominent. Using campaigns directly targeting the student body to educate this demographic to coincide with the enforcement that is currently working will aid in changing the behaviour and attitudes of the students. This will increase their knowledge base and will imbed an anti drink driving frame of mind that will remain with the age group after they have left third level education.

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# **Chapter 1 - Introduction**

## 1.1 Introduction to Topic

*‘Of all modes of transport, transport by road is the most dangerous and the most costly in terms of human lives’ -The White Report*

The purpose of this study is to gauge the attitude, behaviour and knowledge of students in the age group of 18 to 30 in relation to drinking and driving. The focus was placed on students as they are a high risk group in relation to traffic collisions on Irish roads. The area of enforcement was also investigated as within the in the RSA model for change enforcement is a key part of changing attitudes and therefore behaviours of road users.

The topic of drinking and driving was brought to the forefront in Ireland with the introduction of the 2010 Road Traffic Act. Within this Act there were changes to the drink driving limits in Ireland. A review of literature shows why these changes were implemented in Ireland from a European level and why the new limits were chosen. A review of the effects that alcohol has on the human body and the effect it will have on a person's driving ability leading to specified type of traffic collisions associated to drunk driving was reviewed.

A review of the Road Traffic Act 2010 directly focusing on sections regarding drinking and driving was reviewed such as driver type, the new limits and also the penalties, prosecution and consequential disqualifications for the offence of drunk driving. A review of the Road Safety Authority model of change was performed and the actions of the Road Safety Authority in relation to reducing the cases of drinking and driving in Ireland.

The method of observation was used at Mandatory Alcohol Testing checkpoints to obtain a general overview of the road users in Ireland attitude towards enforcement. A survey was performed on students to obtain information regarding their behaviour and attitude towards drinking and driving and their knowledge of the area. Semi-structured interviews were performed on graduates to obtain a representative sample for a comparison of road uses that have recently left third level education and are within the same age group of students surveyed. The result obtained were analysed using the programme SPSS.

## 1.2 European Commission

As Ireland is a member state in the European Union we were required to implement recommendations made by the European Commission to reduce road deaths. In Article 211 published in July 2004 the European Commission made a number of recommendations in relation to reducing road fatalities across Europe including fatalities as a result of drunk driving. The bases for the commission's recommendations were generated from the White Paper on European transport policy for 2010: Time to decide.<sup>1</sup>

The White Paper shows a realistic overview of the state of European transport at the date of publication in 2001 and gives recommendations on how to improve the transport system in the EU.<sup>2</sup> The European Commission set an overall objective in terms of road safety that the number of fatalities on the roads needs to be halved by 2010. This is a reduction from 50,000 in the year 2000 to 25,000 by 2010 across Europe.<sup>3</sup>

The White Paper sets out a programme comprising of 60 measures to be implemented by 2010 for the reduction in fatalities, included in these measures is the area of drunk driving.<sup>4</sup> The report gives an overview of the number of deaths on European roads since the 1970's which stands at 1.64 millions fatalities up until 2001. The White Paper advises that the route to halving the number of deaths on a countries road is via harmonisation of penalties across Europe and new technologies to improve safety.<sup>5</sup>

In the area of drinking and driving the European Commission urged member states to adapt the recommended maximum general limit of 50mg /100ml of blood alcohol concentration (BAC) for experienced drivers and 20mg/100ml for commercial and inexperienced drivers.<sup>6</sup> In 2001 Ireland along with the United Kingdom, Malta and

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<sup>1</sup> The EU Commission. Commission Recommendations: *On enforcement in the field of road safety*, Official Journal of the European Union, 2004/354/EC

<sup>2</sup> European Commission. *White Paper – European transport policy 2010: Time to decide*, Office for official publications of the European Commission, 2001.

<sup>3</sup> European Commission. *White Paper (n2)* pp3

<sup>4</sup> European Commission. *White Paper (n2)* pp3

<sup>5</sup> European Commission. *White Paper (n2)* pp65

<sup>6</sup> European Commission. *White Paper (n2)* pp 66

Luxembourg was the EU member states with an 80mg/100ml general BAC limit with Sweden having the lowest BAC limit at 20mg/100ml.<sup>7</sup>

The European Commission recommends the area of enforcement and legislation as useful and effective tools for reducing the number of drink driving related fatalities. The best practices in these areas are random breath testing and evidential devices for sampling and evidence for prosecution. The enforcement needs to be proactively enforced against a strong government policy with sanctions to deter from offending.<sup>8</sup>

As per the commission's recommendations for a country to successfully implement new legislation and to reduce the number of alcohol related road deaths there must be public awareness and understanding of why there is strong enforcement being implemented for the successful cultural acceptance of more stringent legislation.<sup>9</sup>

These recommendations for each member state includes establishing a national enforcement plan that will; focus the local and national authorities on the goal of halving the number of road death by 2010. The national enforcement plan must also be reviewed to ensure that the measures being implemented are effective and if there are any failings within the plan to be for these failings to be reported to the commission.<sup>10</sup>

### **1.3 Alcohol Consumption in Ireland**

Ireland as a nation has a reputation across the world of drinking but is this reputation true and if so what type of drinking is more predominated in modern Ireland. The EU global status report on alcohol and health in association with the World Health Organisation released in 2011, shows Ireland having a recorded consumption per person of alcohol at 14.4 litres of pure alcohol over the period of 2003-2005. In contrast the WHO European region recommends consummation of 12.2 litres. The report placed Ireland at level 3 drinking score which is not the most risky but the score is contributed to a high level of

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<sup>7</sup> European Commission. *White Paper (n2)* pp 68

<sup>8</sup> The EU Commission (n1) pp1

<sup>9</sup> The EU Commission (n1) pp4

<sup>10</sup> The EU Commission (n1) pp8

consumption per person indicating a level of binge drinking in Ireland. The significant factor is the rate of consumption increasing the risk factor.<sup>11</sup>

In Ireland over a 5 year period from 2000 to 2005, the report shows that males have a higher fatality rate in alcohol related road fatalities with the highest in 2000 with 20.2 per 100,000 per population. It also shows a decreasing trend in the level of male deaths per 100,000 per population with the male fatality rate steadily decreases each year, the lowest recorded in 2005 at 11.5 per 100,000 per population.<sup>12</sup>

Another paper based on survey techniques was a European comparison directly with Ireland carried out in September 2002;<sup>13</sup> it found that there is a significant percentage of Irish that do not consume alcohol at 23% compared to the UK and Italy at 11%. However the reported level of total alcohol consumption was 9.3 litres per person per 100% alcohol a year, this is a high rate with only the UK coming close at 9 litres. The level of non drinkers in relation the litres consumed means that the quantity of alcohol per time of consumption is high thus indicating a trend of binge drinking. This is again shown in the drinking patterns of the Irish with men reporting binge drinking 48% per week and women 16% per week this is higher than all the compared EU countries. This shows a high trend in binge drinking in Ireland as a nation which correlates with the WHO report.<sup>14</sup>

Another trend again showing in the WHO report shows that men have a higher level of alcohol consumption than women at 14.3 per 100% alcohol a year compared to women at 4.8 per 100% alcohol a year with men in the age bracket of 18-29 being at the highest level.<sup>15</sup>

The trend of binge drinking is clear in a direct Irish review by the Mature Enjoyment of Alcohol in Society (MEAS) who commissioned Millward Brown research group to

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<sup>11</sup> World Health Organisation 2011. *Global Status Report on alcohol and health*, Retrieved from [http://www.drugsandalcohol.ie/14675/1/Global\\_status\\_report\\_on\\_alcohol\\_and\\_health.pdf](http://www.drugsandalcohol.ie/14675/1/Global_status_report_on_alcohol_and_health.pdf)

<sup>12</sup> WHO. *Global Status Report on alcohol and health* (n11) pp2

<sup>13</sup> M. Ramstedt, A .Hope (2004). *The Irish Drinking Culture – Drinking and driving – related harm, a European comparison*, Department of Health and Children Health Promotion Unit.

<sup>14</sup> M. Ramstedt, A .Hope (2004). *The Irish Drinking Culture* (n13) pp 5, 10

<sup>15</sup> WHO 2011. *Global Status Report on alcohol and health*.(n26) pp 2

perform annual tracking research on media campaigns. This research was to assess their strategy of discouraging the social acceptance of excessive public intoxication by highlighting the effect on the sober and to promote responsible drinking.<sup>16</sup>

Results taken from the study in Table 1.8.a gives a general indication on drinking trends from 2009 to 2011 these drinking trends show a level of binge drinking that is present within Ireland as the frequency of consumption may have decreased the amount consumed has increased.

| Drinking Trends                                 |    |   |        |
|---|----|---|--------|
| Frequency Average based on weekly consumption % |    | Quantity of drinks per occasion of drinking |        |
| Year  | %  | Year  | Drinks |
| 2009  | 57 | 2009  | 5.6    |
| 2010  | 56 | 2010  | 6.1    |
| 2011  | 49 | 2011  | 6.0    |

**Table 1.3.a:** *Drinking trends taken from MEAS tracking report.*<sup>17</sup>

The MEAS study shows that there is an increase in the number of people drinking at home due to financial reasons not for the want of not going to a pub or night club. This may also reduce the rate of incidents of drinking and driving.<sup>18</sup>

## 1.4 Blood Alcohol Concentration (BAC) and the effects

Alcohol has its own place in society across Europe including social inclusion, religion and in some case rites of passage. However due to the composition of ethyl alcohol (ethanol) has toxic effects that are registered on the therapeutic index. Therefore the consumption of ethanol at different concentrations can lead to toxic side effects along with addictive dependencies.<sup>19</sup> Alcohol can have an immediate effect on the brain due to the bonding

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<sup>16</sup> Millward Brown Lansdowne. *Annual Tracking Research Summary of Key Findings*, Mature enjoyment of Alcohol in Society website ,2011 , Retrieved from <http://www.millwardbrownlansdowne.ie/archived-news.html>

<sup>17</sup> Millward Brown Lansdowne. *Annual Tracking Research Summary of Key Findings*(n16) result

<sup>18</sup> Millward Brown Lansdowne. *Annual Tracking Research Summary of Key Findings* (n16) pp conclusion

<sup>19</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving: A road safety manual for decision- makers and practitioners*, Geneva, Global Road safety Partnership 2007. Pp 4

properties of the alcohol functional group, the effects on the brain can either be a depressant or a stimulant.

Based on scientific research such as epidemiology and experimental data it has been determined that alcohol levels in the blood stream the blood alcohol concentration (BAC) directly impairs driving skills. Government bodies have used this data to implement legislation to establish a blood alcohol concentration that a driver can have in there their system before breaching the law.<sup>20</sup>

BAC is measured in Irish law enforcement in terms of milligrams of 100 ml of blood. The method of on the spot testing is handheld electronic units commonly known as breathalyzers. Breath alcohol concentration (BrAC) is expressed in weight so milligrams per 100 ml of breathe with a known relationship between BrAc and BAC measurements for the use of testing impairment in driving.<sup>21</sup>

Alcohol intake before driving has a significant effect on a person's driving skills including increased drowsiness, impaired visual functions, impaired psychomotor skills, processing information, divided attention and perception including reaction times. The after effects when alcohol as left the system commonly known as a hangover will have similar but reduced effects on driving ability in some cases where there was a high concentration of intake may still be in the process of being excreted from the system.<sup>22 23</sup>

A review performed by Moskowitz and Fiorentino in 2000 based on 109 case studies shows evidence of impairment with a small increase of alcohol in the blood from 0.00 mg/100ml BAC.<sup>24</sup> The results from these studies indicate a number of areas of the body

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<sup>20</sup> Herbert Moskowitz, Dary Fiorentino. A Review of the Literature on the Effects of Low Dose of Alcohol on Driving – Related Skills, April 2000 , US Department of Transportation, NHTSA, Retrieved from <http://www.nhtsa.gov/people/injury/research/pub/hs809028/Title.htm#Contents>

<sup>21</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving (n10) pp 14*

<sup>22</sup> Herbert Moskowitz, Dary Fiorentino. (n11) results section

<sup>23</sup> Peter Anderson. *Reducing Drink Driving in Europe*, Institute of Alcohol Studies London 2008, Hamm, DHS.

<sup>24</sup> Herbert Moskowitz, Dary Fiorentino. (n11) results section

that alcohol has an effect. These effects can have a direct affect a person's driving skills that can lead to a collision.

#### **1.4.1 Impaired Vision**

The effects of alcohol starts from low doses such as 25mg/100ml BAC which leads to a person's eye movement being impaired thus impairing the ability to tract or follow the road. The ability for the eyes to readjust from light such as on coming head lights is also reduced with reports shows an effect from 70mg/100ml BAC. The alcohol affects the dilation of the pupil of the eye reducing the reaction time to readjust.<sup>25</sup> The ability to judge a distance also showed impairment at 47mg/100ml BAC. The ability to judge distance affects depth perception and can have significant effect on changing lanes, turning corners and the distance of obstructions that may be on the road.<sup>26</sup>

#### **1.4.2 Drowsiness and divided attention**

Being alert is a necessary measure when driving therefore the effect of alcohol on a person who may have lack of sleep or be drowsy from the effects of alcohol, will increase the likelihood of crashing as this directly related to collisions involving as most alcohol related collisions occur at night. A BAC level as low as 30mg/100ml can have an effect on a driver with sleep deprivation this has an effect the morning after drinking also the driver may be below the legal BAC limit however the effect of the alcohol in the human body are still present.<sup>27 28</sup>

Driving skills require the ability to perform duel tasks such are turning a corner and observing the road ahead therefore the ability to perform these tasks are a measure of safe driving. The attention or ability to before duel tasks or divided attention can be effected by alcohol. A BAC as low as 50mg/100ml shows an impairment in the ability of a person to perform a skill such as lane changing, visual monitoring , speed deviation and incorrect responses to road signs.<sup>29</sup>

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<sup>25</sup> Herbert Moskowitz, Dary Fiorentino. (n11) results section

<sup>26</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 19

<sup>27</sup> Herbert Moskowitz, Dary Fiorentino. (n11) results section

<sup>28</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 20

<sup>29</sup> Herbert Moskowitz, Dary Fiorentino. (n11) results section



### 1.4.3 Psychomotor skills

Psychomotor skills are skills within driving that become second nature, tasks that a driver will automatically perform such as breaking. In the review by Moskowitz and Fiorentino body balance was a test of psychomotor skills as this is a part of the United States Police Department sobriety test. The review shows that 45% of test subject where found to have impairment at a BAC of 40mg/100ml with 100% of test subjects showing impairment at 80mg/100ml.<sup>30</sup>

Steering and breaking are large parts of a driver's skill to prevent collisions and therefore are imperative to safe driving. A BAC of 35 mg/100ml shows a level of impairment in relation to steering and a BAC of 30mg/100 ml shows impairment in breaking.<sup>31</sup>

The fact that alcohol impairs the skills required for safe driving at low levels, lead the EU commission to recommend the reduction in the BAC limit across Europe. A maximum of 50mg/100ml for experienced drivers and 20mg/100ml for inexperienced and commercial drivers to reduced the amount of alcohol that can be ingested to minimise the effects on the human system.<sup>32</sup>

### 1.4.4 Factors that will effect Blood Alcohol Concentration

The effects detailed in sections 1.4.1 to 1.4.3 are present in drivers shortly after the ingestion of alcohol and can also affect the body after it has diluted through the liver. At low BAC limits there are impairments therefore a BAC of 0.00mg/100ml is the safest level. There is no maxim threshold on BAC as the effects on a system escalate and in extremely high doses and contractions the effects of alcohol can be highly toxic.<sup>33 34</sup>

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<sup>30</sup> Herbert Moskowitz, Dary Fiorentino. (n11) results section

<sup>31</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 21

<sup>32</sup> European Commission. *White Paper* (n2) pp 3

<sup>33</sup> European Commission. *White Paper* (n2) pp 4

<sup>34</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 23

However the effect of alcohol on a person is varies depending on a number of factors.<sup>35</sup>

- The amount of alcohol that is consumed will directly have an effect on the amount of alcohol that will enter the blood stream.
- The rate at which alcohol is consumed has an effect as it will take on average on hour for a human liver to dilute the alcohol in one standard alcoholic beverage in the blood stream.
- The type of alcohol consumed will have an effect on the BAC in a system. Each alcoholic beverage will have a different concentration therefore a higher level of alcohol will enter the blood stream is the concentration of the alcohol is higher.
- The rate of absorption into the blood stream will be reduced if there is food consumed before consuming alcohol as the digestive system will take longer to pass the alcohol into the small intestine.
- Women will reach a higher BAC then men even if the same amount type and rate of consumption of alcohol is observed, See figure 1.4.4.a and figure 1.4.4.b

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<sup>35</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving* (n10) pp 140

NEVER  
DRINK  
AND  
DRIVE

# ALCOHOL IMPAIRMENT CHART

|        | APPROXIMATE BLOOD ALCOHOL PERCENTAGE |     |     |     |     |     |     |     |     |  |
|--------|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Drinks | Body Weight in Pounds                |     |     |     |     |     |     |     |     |  |
|        | 90                                   | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 |  |
| 0      | .00                                  | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | ONLY SAFE DRIVING LIMIT                        |
| 1      | .05                                  | .05 | .04 | .03 | .03 | .03 | .02 | .02 | .02 | Impairment Begins                              |
| 2      | .10                                  | .09 | .08 | .07 | .06 | .05 | .05 | .04 | .04 | Driving Skills Affected                        |
| 3      | .15                                  | .14 | .11 | .10 | .09 | .08 | .07 | .06 | .06 | Possible Criminal Penalties                    |
| 4      | .20                                  | .18 | .15 | .13 | .11 | .10 | .09 | .08 | .08 |  |
| 5      | .25                                  | .23 | .19 | .16 | .14 | .13 | .11 | .10 | .09 |  |
| 6      | .30                                  | .27 | .23 | .19 | .17 | .15 | .14 | .12 | .11 | Legally Intoxicated<br>—<br>Criminal Penalties |
| 7      | .35                                  | .32 | .27 | .23 | .20 | .18 | .16 | .14 | .13 |  |
| 8      | .40                                  | .36 | .30 | .26 | .23 | .20 | .18 | .17 | .15 |  |
| 9      | .45                                  | .41 | .34 | .29 | .26 | .23 | .20 | .19 | .17 |  |
| 10     | .51                                  | .45 | .38 | .32 | .28 | .25 | .23 | .21 | .19 |  |

Your body can get rid of one drink per hour.  
Each 1½ oz. of 80 proof liquor, 12 oz. of beer or 5 oz. of table wine = 1 drink.

Figure 1.4.4.a: Alcohol impairment chart for Females.<sup>36</sup>

NEVER  
DRINK  
AND  
DRIVE

| ALCOHOL IMPAIRMENT CHART             |                       |     |     |     |     |     |     |     |                             |  |
|--------------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----------------------------|--|
| APPROXIMATE BLOOD ALCOHOL PERCENTAGE |                       |     |     |     |     |     |     |     |                             |  |
| Drinks                               | Body Weight in Pounds |     |     |     |     |     |     |     |                             |  |
|                                      | 100                   | 120 | 140 | 160 | 180 | 200 | 220 | 240 |                             |  |
| 0                                    | .00                   | .00 | .00 | .00 | .00 | .00 | .00 | .00 | ONLY SAFE DRIVING LIMIT     |  |
| 1                                    | .04                   | .03 | .03 | .02 | .02 | .02 | .02 | .02 | Impairment Begins           |  |
| 2                                    | .08                   | .06 | .05 | .05 | .04 | .04 | .03 | .03 | Driving Skills Affected     |  |
| 3                                    | .11                   | .09 | .08 | .07 | .06 | .06 | .05 | .05 | Possible Criminal Penalties |  |
| 4                                    | .15                   | .12 | .11 | .09 | .08 | .08 | .07 | .06 |                             |  |
| 5                                    | .19                   | .16 | .13 | .12 | .11 | .09 | .09 | .08 |                             |  |
| 6                                    | .23                   | .19 | .16 | .14 | .13 | .11 | .10 | .09 | Legally Intoxicated         |  |
| 7                                    | .26                   | .22 | .19 | .16 | .15 | .13 | .12 | .11 | Criminal Penalties          |  |
| 8                                    | .30                   | .25 | .21 | .19 | .17 | .15 | .14 | .13 |                             |  |
| 9                                    | .34                   | .28 | .24 | .21 | .19 | .17 | .15 | .14 |                             |  |
| 10                                   | .38                   | .31 | .27 | .23 | .21 | .19 | .17 | .16 |                             |  |

Your body can get rid of one drink per hour.  
Each 1½ oz. of 80 proof liquor, 12 oz. of beer or 5 oz. of table wine = 1 drink.

Figure 1.4.4.b: Alcohol impairment chart in Males.<sup>37</sup>

- Body type and weight will have an effect on the rate of absorption as BAC is affected by the amount of water in a system, the larger the body the more the water

<sup>36</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving* (n10) pp 140

<sup>37</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving* (n10) pp 140

that is present in the system. Fatty tissue in a system does not absorb alcohol so the alcohol will be more concentrated in the rest of the body leading to a higher BAC.

- Medication will have an effect on the elimination of alcohol from a human system in some cases such as the antibiotic Flagyl (metronidazole) that has strong interactions with alcohol that will produce immediate side effects.
- Personal perception is another factor; if a person drinks on a regular base their tolerance to the effects of alcohol will increase however their BAC will still increase with alcohol consumed.

## **1.5 Blood Alcohol Concentration connected to traffic collisions**

If a driver of any vehicle has as alcohol in their system so a BAC greater then 0.00mg/100ml there is an increase in the chance of crashing especially infrequent drinkers where the alcohol will have a greater side effect.<sup>38</sup>

A BAC of 20mg/100ml to 49mg/100ml leads to a three time greater risk of crashing then at 0.00mg/100ml within the general population of drivers with the addition on inexperienced drivers having an additional two and a half times greater chance of crashing at this BAC level. Increasing the BAC to 50mg/100ml to 79mg/100ml will increase the chance of a collision by 6 times and over 80mg/100ml by 11 times.<sup>39</sup>

Due to different levels of experience and maturity there is a difference risk in age groups and gender. In relation to general traffic collisions on Irish road 16 to 30 year olds are most at risk of death from traffic collision with 100 of the 212 persons killed on Irish roads in 2010 in this age group.<sup>40</sup> The age group of 20 to 29 are three times more likely to have a collision then an experience driver with the same BAC and teenage drivers aged 17-20 are

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<sup>38</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 8

<sup>39</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 9

<sup>40</sup> An Garda Síochána. An Garda Síochána Annual Report 2010 , Retrieved from [http://www.garda.ie/Documents/User/2Copy%20of%20Garda\\_English\\_2010\\_FL\\_LOWRES.pdf](http://www.garda.ie/Documents/User/2Copy%20of%20Garda_English_2010_FL_LOWRES.pdf)

34 times higher than other drivers with the same BAC at 30mg/100ml if they have two or more passengers in the car.<sup>41</sup>

The trend in relation to traffic collisions also includes gender, males in Ireland consume a higher level of alcohol than females as seen in section 1.2 therefore leading to a greater risk of drink driving related collisions. Drink driving collisions across Europe are more likely to involve males than females and are practically common amongst the younger generation of drivers.<sup>42</sup> This is reflected in Ireland where the total traffic collisions in Ireland in 2010 males accounted for 167 of fatalities on Irish roads with 45 female fatalities.<sup>43</sup>

### **1.5.1 Types of traffic collisions**

Traffic collisions that involve drink driving exhibit certain characteristics due to the effects of alcohol on a person's driving ability discussed in section 1.4.

Single car collisions involves the car being driven colliding with another inert object such as road signage, fixed objects, trees in rural areas and also drifting from the driving lane into ditches are some of the most common. This type of collision is mainly due to speed with the effects of alcohol leading to lack of perception of the speed that the car is travelling, lack of psychomotor skills and also perception of distance involved in turning. These types of collisions can result in injuries and fatalities.<sup>44</sup>

Night time collisions are most common with drink driving as this is the time frame where alcohol is most usually consumed. Within Ireland the most dangerous times on Irish roads are between 10pm and 2 am with 23.1% of fatal collisions occurring at this time and 6am to 8 am also being a time frame of high risk with 10.8% of fatal collisions occurring.<sup>45</sup>

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<sup>41</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving* (n10) pp 13

<sup>42</sup> Peter Anderson. *Reducing Drink Driving in Europe* (n14) pp 9

<sup>43</sup> An Garda Síochána Annual Report 2010 (n 31) pp 17

<sup>44</sup> World Health Organisation, FIA Foundation, Global Road Safety Partnership, The World Bank. *Drinking and Driving* (n10) pp 37

<sup>45</sup> An Garda Síochána Annual Report 2010 (n 31) pp 17

Weekends are also a time of high risk due to the nature of free leisure time and the within Ireland the nature of binge drinking. The weekend represent the most dangerous days of the week in relation to fatal traffic collisions with Fridays at 13.7% , Saturdays at 17.9% and Sundays at 25.5% of fatalities from collisions occurring.<sup>46</sup>

## 1.6 Timeline of events in Ireland in relation to drink driving

Within Ireland there is a time line can be set out in relation to implementing the European Commission's recommendations regarding drink driving, to reduce road deaths by 2010.<sup>47</sup>

- In 2000 the National Safety Council launched an all island television campaign in relation to drink driving called 'Shame' see figure 1.6.a.



**Illustration 1.6.a:** National Safety Council 'Shame' campaign<sup>48</sup>

- Following the success of the 'Shame' campaign in 2005 the National Safety Council released another all island campaign. The anti drink driving campaign 'Just One' involved airing a number of television adverts to demonstrate the effects

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<sup>46</sup> An Garda Síochána Annual Report 2010 (n 31) pp 17

<sup>47</sup> Road Safety Authority, *Reduction in drink driving limits*, October 2012

<sup>48</sup> Donegal County Council., Retrieved from

<http://www.donegalcoco.ie/services/roadtransport/Road+Safety/education.htm#drink>

of drink driving with graphic image of crashes the aftermath of the crashes see figures 1.6.b to 1.6. f <sup>49</sup>



**Illustration 1.6.b:** *'Just one' campaign*



**Illustration 1.6.c:** *'Just one' campaign*

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<sup>49</sup> National Safety Council. *Just one drink impairs driving , never ever drink and drive poster* , Retrieved from <http://www.rte.ie/news/features/roadsafety/publications/JustOneDrink.pdf>





**Illustration1.6.d:** *'Just one' campaign*



**Illustration 1.6.e:** *'Just one' campaign*



**Illustration 1.6.f:** *'Just one' campaign*



- In July 2006 Mandatory Alcohol Testing was brought into enforcement. MAT checkpoints became active across Ireland where breathalysers are used for on the spot testing at checkpoints that are strategically placed by An Garda Síochána.
- In September 2006 the Road Safety Authority was established in part in the response to the EU requirements to reduce road deaths in Ireland to establish a national plan.
- In 2007 from the amendments made to the 1961- 2006 Road Traffic Act stricter penalties was brought into force in relation to drink driving.
- The Road Safety Authority the RSA launched the National Road Safety Strategy Plan 2007 to 2012. The RSA is charged with overseeing the implementation of the strategy plan, by cooperating with local councils and other state bodies. The objective of the road strategy plan to ensure that road deaths are being reduced by at least 30% to ensure that Ireland come in line with the rest of Europe.
- The anti-drink driving campaign ‘Crashed Lives’ tells the story of Micilín Feeney who crashed on the 31<sup>st</sup> of October 2004. Micilín drank and drove on that night and had a single car collision which resulted in Micilín having brain damage. See figure 1.6.g.



**Illustration 1.6.g:** ‘Crashed Lives’ drink driving Micilín Feeney.<sup>50</sup>

- In 2009 draft legislation was brought forward to lower the drink driving limit under the Road Traffic Act , this includes altering the penalties in relation to the level of

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<sup>50</sup> RSA , Retrieved from <http://rsa.ie/RSA/Road-Safety/Campaigns/Current-road-safety-campaigns/Crashed-Lives/Content-Page1/>

BAC in a drivers blood stream. The act will also bring into law the mandatory requirement for a breath specimen for every driver involved in a collision on the road side or evidential blood /urine specimens in the event the driver attends hospital.

- 2010 the legislation is passed by the Dáil.
- On Friday the 28<sup>th</sup> October 2011 the 2010 Road Traffic Act came into enforcement.

In relation to the changes in legislation and for information of drink driving to educate people the Road Safety Authority provided information on their Website with the addition of the launch of the website [www.drinkdriving.ie](http://www.drinkdriving.ie). The RSA also ran media campaigns coming up to the changes in relation to legislation. These media campaigns were fronted by Mr Gay Byrne who is the current chairperson of the Road Safety Authority.<sup>51</sup>

The most recent campaign in relation to the reduction in the drink driving limits comprises of radio adverts advising of the new limits and also a television campaign. The television advert shows the town of Kilkee absent of people as the population of 1024 is just under the number of lives that have been saved on Irish roads. The advert hosts a voice over advising of the reduction of limits see figure 1.6.h.<sup>52</sup>



**Illustration 1.6.h: Lower drink driving limits campaign<sup>53</sup>**

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<sup>51</sup> RSA. Reduction in Drink Driving (n42) pp 3

<sup>52</sup> Road Safety Authority. Campaigns – Lower Drink Driving Limits ,Retrieved from <http://www.rsa.ie/en/RSA/Road-Safety/Campaigns/Current-road-safety-campaigns/Lower-Drink-Drive-Limits/>

<sup>53</sup> Retrieved from Road Safety profile <http://vimeo.com/31089823>

## 1.7 2010 Road Traffic Act

There is clear scientific evidence for the reduction in the Blood Alcohol Concentration that a driver can have in their system before being over the legal limit. The reduction from 80mg/100ml to 50mg/100ml BAC for normal or experienced drivers and 20mg/100ml BAC for specified drivers as discussed in section 1.1 as a standard general limit was introduced in Ireland under the new 2010 Road Traffic Act. This will bring the limits in line with the majority of European countries see figure 1.7.a the current limit across Europe as it stands in 2012.



**Illustration 1.7.a:** *Map of BAC limits in Europe*<sup>54</sup>

The 2010 Road Traffic Act was introduced to the Dáil Éireann on the 13<sup>th</sup> of August 2010, in 2011 the full Act was enforceable on the 28<sup>th</sup> of October 2011.<sup>55</sup> The Act made a number of amendments to the 2006 Road Traffic Act including reducing the blood alcohol level, the definition of driver type and also the penalties in relation to changes.

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<sup>54</sup> Road Safety Authority. *Road Safety Strategy Plan 2007 – 2012* ,(2007), Retrieved from [http://www.rsa.ie/documents/road%20safety/rsa\\_strategy\\_eng\\_s.pdf](http://www.rsa.ie/documents/road%20safety/rsa_strategy_eng_s.pdf)

<sup>55</sup> Irish Statute Book. *Road Traffic Act 2010* , Retrieved from <http://www.irishstatutebook.ie/2010/en/act/pub/0025/index.html>

Another key revision of the Road Traffic Act 1961 – 2006 with the introduction of the 2010 Road Traffic Act was the establishment of mandatory alcohol testing when a driver is involved in a traffic collision. Gardaí are obliged to test all parties involved for alcohol concentration limits at the roadside, if any of the parties involved in the traffic collision fail or refuse to provide a sample they are committing a separate offence under the Road Traffic Act which makes them liable for arrest and prosecution.

There are two tiers of testing limits for breath, blood and urine depending on the type of driver is being tested. Under the 2010 Road Traffic Act these limits are defined under two types a specified person and a normal driver.

### **1.7.1 Specified person**

A specified person is defined under the 2010 Road Traffic Act.<sup>56</sup> Under the act a specified person must be tested under the lower limits of the law due to their level of experience, the type of vehicle that is being driven or if the vehicle is of commercial use.

- A holder of a learner permit.
- A person holding their first driving licence for the category of the vehicle been driven within a 2 year period from the date the licence was issued. Therefore a person holding a full licence for under two years.
- The holder of a drivers licence under the following categories
  - C. A vehicle over 3500 kg that hold no more than eight persons and may have a trailer attached not exceed 750kg.
  - C1. A vehicle not exceeding 7500kg and may have a trailer attached that may not exceed 750kg. The vehicle and the trailer may not exceed 7500kg.
  - D. A vehicle with accommodation for more than 8 persons.
  - D1. A vehicle with accommodation for more than 16 persons.

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<sup>56</sup> Road Traffic Act 2010 (n55)

- EB. A vehicle that holds no more than 8 persons and pulling a trailer no more than 750kg.
- EC. A vehicle over 3500 kg and may have a trailer attached not exceed 750kg.
- EC1. A vehicle not exceeding 7500kg that hold a maximum of 8 persons and may have a trailer attached that does not have a maximum weight restriction. The vehicle and the trailer may not exceed 7500kg.
- ED. A vehicle with accommodation for more than 8 persons that may pull a trailer no more than 750kg.
- ED1. A vehicle with accommodation for more than 16 persons that may pull a trailer no more than 750kg. The trailer may not be use for passengers
- W. Work vehicle and land tractors.
- 
- A holder of a SPSV licence while under the course of business.
- A person who does not hold a driver licence for the category of vehicle that they are driving.

A member of An Garda Síochána will request a copy of a drivers licence before performing a breath test, if a person does not produce a driver's licence then they will be tested as a specified driver under the 2010 Road Traffic Act at the lower limit of breath, blood and urine.<sup>57</sup>

### **1.7.2 Normal driver**

A normal or experienced driver is a driver that holds a full licence for over two year in the remaining category's B, A and A1. These divers will be tested at the higher limits of breath blood and urine. A person must produce their driver's licence that is valid for the vehicle type that they are driving to be tested at the limit of a normal driver.<sup>58</sup>

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<sup>57</sup> Garda National Traffic Bureau. *An Garda Síochána mission statement*, source from An Garda Síochána.

<sup>58</sup> Road Traffic Act 2010 (n55)

### 1.7.3 New Limits and Penalties

The below are the new limits for breath , urine and blood tests for alcohol concentration and the corresponding penalties if a person is found to be over the legislative limit and if a person is successfully prosecuted in a court of law.<sup>59</sup>

#### 1.7.3.1 Drinking and Driving Fixed Penalty – Limits and Charges

This system is in place if a person has a valid licence either as a specified person or a normal driver. This system is in place if a person is within certain limits. A driver will be issued with a fixed penalty notice which must be paid within 28 days of it being issued and a person will not go to court. The following are the limits and the associated penalties for a specified driver and a normal driver under section 4 Road Traffic Act 2010 the charge for drunken driving.<sup>60</sup>

| Normal Driver limits<br>In excess of  | Specified Driver limits<br>In excess of   | Penalty                                    |
|---|---|--|
|   | 20mg to 80mg per 100ml of Blood<br>28mg to 107mg per 100ml of Urine<br>10mg to 35mg per 100ml of Breath   | 3 months disqualification<br>and €200 fine |
| 50mg to 80mg per 100ml of Blood<br>68mg to 107mg per 100ml of Urine<br>23mg to 35mg per 100ml of Breath   |   | 2 penalty points and<br>€200 fine          |
| 81mg to 100mg per 100ml of Blood<br>108mg to 135mg per 100ml of Urine<br>36mg to 44mg per 100ml of Breath | 81mg to 100mg per 100ml of Blood<br>108mg to 135mg per 100ml of Urine<br>36mg to 44mg per 100ml of Breath | 6 months disqualification and<br>€400 fine |

**Table 1.7.3.1 a: Fixed Penalties**

The above limits and penalties also stand under section 5 of the Road Traffic Act 2010 for the drunk- in- charge.

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<sup>59</sup> An Garda Síochána information mission statement

<sup>60</sup> An Garda Síochána information mission statement

### 1.7.3.2 Drink Driving – Consequential Disqualification

The following are the disqualification, fines and also prison terms that can be given by the Irish Court system if a person is successfully prosecuted under the 2010 Road Traffic Act for drunk driving under section 4 and also for drunken charge under section 5.

| Offence                                    | Normal Driver limits<br>In excess of | Specified Driver<br>limits<br>In excess of | Sentence     |              | Disqualification<br>n                                    |
|--|--------------------------------------|--|--------------|--------------|--|
|  |                                      |  | Fine         | Imprisonment |  |
| Section 4 ,<br>Road<br>Traffic<br>Act 2010 | 50mg to 80mg per<br>100ml of Blood   | 20mg to 80 mg per<br>100 ml of Blood       | Class<br>A   | 6 Months     | 1 <sup>st</sup> offence – 6<br>months                    |
|  | 68mg to 107mg per<br>100ml of Urine  | 28mg to 107mg per<br>100ml of Urine        | Max<br>€5000 |              | disqualification<br>2 <sup>nd</sup> offence – 1<br>year  |
|  | 23mg to 35mg per<br>100ml of Breath  | 10mg to 35mg per<br>100ml of Breath        |              |              | disqualification   |
|  | 81mg to 100mg per<br>100ml of Blood  | 81mg to 100mg per<br>100ml of Blood        | Class<br>A   | 6 Months     | 1 <sup>st</sup> offence – 1<br>year                      |
| Section 5,<br>Road<br>Traffic Act<br>2010  | 108mg to 135mg per<br>100ml of Urine | 108mg to 135mg per<br>100ml of Urine       | Max<br>€5000 |              | disqualification<br>2 <sup>nd</sup> offence – 2<br>years |
|  | 36mg to 44mg per<br>100ml of Breath  | 36mg to 44mg per<br>100ml of Breath        |              |              | disqualification   |
|  | 101mg to 150mg per<br>100ml of Blood | 101mg to 150mg per<br>100ml of Blood       | Class<br>A   | 6 Months     | 1 <sup>st</sup> offence – 2<br>years                     |
|  | 136mg to 200mg per<br>100ml of Urine | 136mg to 200mg per<br>100ml of Urine       | Max<br>€5000 |              | disqualification<br>2 <sup>nd</sup> offence – 4<br>years |
| 2010                                       | 45mg to 44mg per<br>100ml of Breath  | 45mg to 44mg per<br>100ml of Breath        |              |              | disqualification   |
|  | >150mg/100ml of<br>blood             | >150mg/100ml of<br>blood                   | Class<br>A   | 6 Months     | 1 <sup>st</sup> offence – 3<br>years                     |
|  | >200mg/100ml of<br>blood             | >200mg/100ml of<br>blood                   | Max<br>€5000 |              | disqualification<br>2 <sup>nd</sup> offence – 6<br>years |
|  | >66mg/100ml Breath                   | >66mg/100ml Breath                         |              |              | disqualification   |

**Table 1.7.3.2.b: Consequential Disqualification**

## 1.8 Road Safety Authority model for change

In Ireland the Road Safety Authority (RSA) incorporated all recommendations from the EU Commission into the Road Safety Strategy Plan 2007-2012 and from here into a model for successful incorporation into Irish society.<sup>61</sup> The RSA Strategy Plan 2007 – 2012 is a programme involving a number of bodies including the National Road Authority and An Garda Síochána alongside local authorities. The strategy plan outlines the actions required to reduce the number of road fatalities in Ireland to 50 - 60 deaths per million populations. The bases for the actions in the RSA strategy plan are from the EU recommendations and best practice from EU countries such as the Netherlands who have made a 20% reduction.

Ireland saw an improvement in the number of road fatalities between 1998 and 2003 this was put down to the National Safety Council releasing a safety strategy with the showing of the ‘Shame ‘ anti drink driving campaign. A spike increase showed between 2003 – 2006, Bedford<sup>63</sup> examined road fatalities in these years and showed that alcohol was a factor in 309 (31%) of 995 recorded road fatalities between 2003 and 2005 breaking down into 110 in 2003, 95 in 2004 and 104 in 2005. In July 2006 with the introduction of Mandatory Alcohol Testing there was a decrease in the number of alcohol related road fatalities in 2006, this may not be a direct result of the introduction of MAT checkpoints however the reduction does indicate this.<sup>64</sup>

The implementation of changes in relation to road safety across a country is not an easy task as within Ireland there are urban areas and also a vast area of rural inhabitants. The RSA strategy plan covers a vast amount of areas including speeding, wearing seat belts, driving while on a mobile phone and also engineering on the roads. Tackling drink driving

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<sup>61</sup> Road Safety Authority. *Road Safety Strategy Plan 2007- 2012* , 2007 ,Retrieved from [http://www.rsa.ie/documents/road%20safety/rsa\\_strategy\\_eng\\_s.pdf](http://www.rsa.ie/documents/road%20safety/rsa_strategy_eng_s.pdf)

<sup>62</sup> R. Fuller, M. Gormley (2007). *The 2007 PSI lecture: Is Ireland ready for a change in drink-driving legislation?* The Irish Journal of Psychology , 2007 , Vol 28, **3-4**, pp 169- 184

<sup>63</sup> Bedford (2008). *Alcohol in Fatal Road Crashes in Ireland 2003 to 2005*, Public Health Directive , Health Service Executive , Retrieved from <http://www.drugsandalcohol.ie/12522/1/AlcoholinFatalRoadcrashes03-5.pdf>

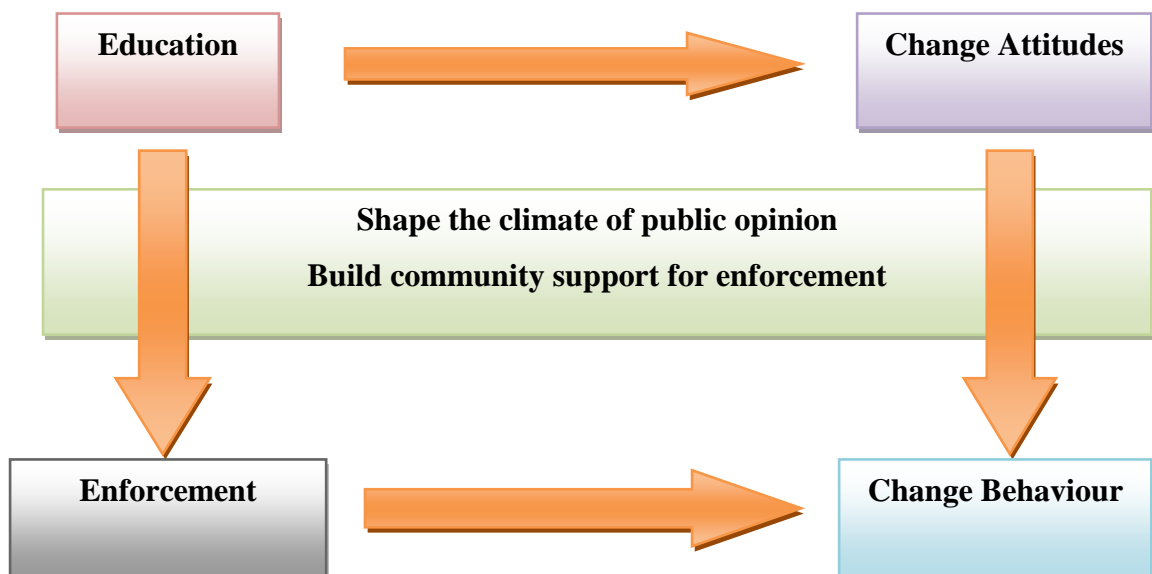
<sup>64</sup> Bedford. *Alcohol in Fatal Road Crashes in Ireland 2003 to 2005* , (n 56) pp 6



was also an aspect in the strategy plan with the implementation of the lower BAC levels which was in the early stages of the legislative process at the time of publication.<sup>65</sup>

The actions in the RSA strategy plan needed to be implemented in an effective manner that will reach across the different age groups and also geographical demographics. Therefore a model for the implementation of the Road Safety Strategy plan was devised for the successful incorporation of the safety measures into Irish society. In Ireland the Road Safety Authority incorporated all recommendations into the Road Safety Stagey plan 2007-2012 in the model in Figure 1.8 a. This model was directly based on the EU Commissions report.<sup>66</sup>

*“From the same scientific sources it appears that enforcement actions are only optimally effective if they are combined with actions to make the public aware of such enforcement actions and of the reasons why they are being held.”<sup>67</sup>*



**Figure 1.8.a:** *The model the RSA is basing the implantation of the strategy plan to the population<sup>68</sup>*

<sup>65</sup> RSA Strategy Plan 2007 – 2012 (n 54) pp20, 58, 60

<sup>66</sup> RSA Strategy Plan 2007 – 2012 (n54) pp 27

<sup>67</sup> The EU Commission (n1) pp4

<sup>68</sup> RSA Strategy Plan 2007 – 2012 (n54) pp 27

The strategy plans main enforcement method in relation to drink driving was to implement the new Road Traffic Act 2010 along with An Garda Síochána enforcing the new act in via visible activates and public enforcement. Educational systems were also outlined such as awareness weeks in universities to primary and port primary educational programmes.<sup>69</sup> For this new enforcement to be successful a number of awareness companies in the media where commissioned such as Never Ever Drink and Drive advert and publications to educated the public of the danger of drinking and driving also make them aware of their unit consumption.<sup>70</sup> The combination of the education and enforcement is aimed at the changing attitude therefore of behaviour.

### **1.8.1 RSA Activity and Actions**

The RSA strategy plan has outlined a number of actions in relation to drink driving for the successfully implementation of the model these actions include:

- Legislate for and introduce a reduction in the legal Blood Alcohol Concentration (BAC) for drivers. The Department of Transport was the main body responsible for the implementation for this action along with the cooperation of the RSA, Medical Bureau of Road Safety and An Garda Síochána. This action is a continuous process.<sup>71</sup>
- To integrate mass media campaigns to complement and coincide with the policing plans of An Garda Síochána and other agencies to raise awareness to the general public and ensure that all age demographics are targeted. This is a continuous process and the media campaigns began from the 2007.<sup>72</sup>
- Education programmes in relation to Road Safety to be implement in pre-school, primary and post primary, third level and in the community as a whole. The RSA is

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<sup>70</sup> RSA Strategy Plan 2007 – 2012 (n54) pp 29, 39

<sup>71</sup> RSA Strategy Plan 2007-2012 (n54) pp 65

<sup>72</sup> RSA Strategy Plan 2007-2012 (n54) pp 55

the leading body in coordinating these education programmes along with An Garda Síochána, the department of education and the health and safety authority. The total number of education programme intended for implantation have not be implanted however there are a number of programmes such as Road Safety Week in Third level institutes that have been implemented.<sup>73</sup>

There are direct programmes and activities that have been performed in relation to drink driving awareness. The most common are the media campaigns that where detailed in section 1.6 including the ‘Crashed Lives’ campaign. The campaign ‘Just one’ disused in section 1.6 was a cross broad camping between Northern and Southern Ireland.<sup>74</sup>

The ‘Morning After’ campaign was a campaign that was run with Mature Enjoyment of Alcohol in Society the society behind Drink Aware. The morning after campaign relays the importance of the time it takes for alcohol to leave your system and relay the units of alcohol that are in alcoholic drinks. This campaign was run at high risk times such as New Years Eve and Christmas and running up to the St Patricks day festival. The main components where television adverts, radio advert, leaflets and cards available in off licenses, premises that sell alcohol and public houses see figures 1.8.1.a, 1.8.1.b, 1.8.1.c.<sup>7576</sup>



**Illustration 1.8.1.a: Drinkawaer poster**<sup>77</sup>

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<sup>73</sup> RSA Strategy Plan 2007-2012 (n54) pp 55

<sup>74</sup> RSA , Retrieved from <http://rsa.ie/RSA/Road-Safety/Campaigns/Current-road-safety-campaigns/Crashed-Lives/Content-Page1/>

<sup>75</sup> Road Safety Authority. *Drink and Driving in Ireland – Awareness Raising and Education*, Retrieved from [http://www.rsa.ie/Documents/Campaigns/Lower%20drink%20drive%20limits/Drink\\_Driving\\_Awareness\\_Activity.pdf](http://www.rsa.ie/Documents/Campaigns/Lower%20drink%20drive%20limits/Drink_Driving_Awareness_Activity.pdf)

<sup>76</sup> Drinkaware. ‘Morning After’ campaign, Retrieved from <http://www.drinksinitiatives.eu/details-dynamic.php?id=384>

<sup>77</sup> Drinkaware. ‘Morning After’ campaign , Retrieved from <http://www.drinksinitiatives.eu/details-dynamic.php?id=384>



**Illustration 1.8.1.b: One Standard Drink Poster.**<sup>78</sup>



**Illustration 1.8.1.c: Time is the only cure poster**<sup>79</sup>

Another campaign to reach out to rural communities was the campaign ‘Take on for the Road’ where there RSA in association with FBD issued high visibility reflective vests across 200 rural pubs.<sup>80</sup>

A campaign to reach young adults was the European Night without Accident. This event targets young adult’s entering night clubs and pubs to encourage them to appoint a designated driver or use public transport to get home. The appointed designated driver was given a wristband to show their commitment and when leaving the establishment they were offered a breath test by volunteers to ensure that their commitment was met. This

<sup>78</sup> Drinkaware. ‘Morning After’ campaign , Retrieved from <http://www.drinkaware.ie/index.php?sid=12&pid=358>

<sup>79</sup> Drinkaware. ‘Morning After’ campaign, Retrieved from <http://www.drinkaware.ie/index.php?sid=12&pid=358>

<sup>80</sup> Road Safety Authority. Drink and Driving in Ireland (n 70) pp2

idea branched out by public houses promote the designated driver scheme by offering free soft drinks to designated drivers.<sup>81</sup>

### 1.8.2 Review of Road Deaths and Enforcement

The latest review of the strategy plan took place 2010 which stated that the reduction in deaths on the road was 54 deaths per one million population meeting the target set out there also shows a reducing in the yearly reduction from 279 deaths in 2008 to 238 deaths in 2009 and 212 in 2010. The review for 2011 will show the impact towards the end of the year the effect that the lower BAC level has had on road deaths.<sup>82</sup>

The review also records the completed actions set out including the increased level of MAT checkpoints to 53969 in 2008 which correlates with the An Garda Síochána annual report<sup>83</sup> that also shows an increase of MAT checkpoints to 57,000 in 2009 and 57, 658 in 2010. In 2011 there were a total of 10,872 detected drink driving incidents recorded on the Garda Database PLUSE. There was a 17% reduction in the number of recorded incidents from 13,086 incidents in 2010.<sup>84</sup>

There is also an increase in the number of MAT checkpoints that were performed in 2011 at 71,122 this is an increase from 57658 in 2010. With the lower level of recorded incidents of drink driving on the Garda Database and the higher number of checkpoints,<sup>85</sup> this result does show a commitment to enforcement. This complements the RSA model but not in changing attitudes towards drink driving but more likely is that driver behaviour is altered by fear of being prosecuted for drink driving then the act of being caught.

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<sup>81</sup> Road Safety Authority. Drink and Driving in Ireland (n 70) pp3

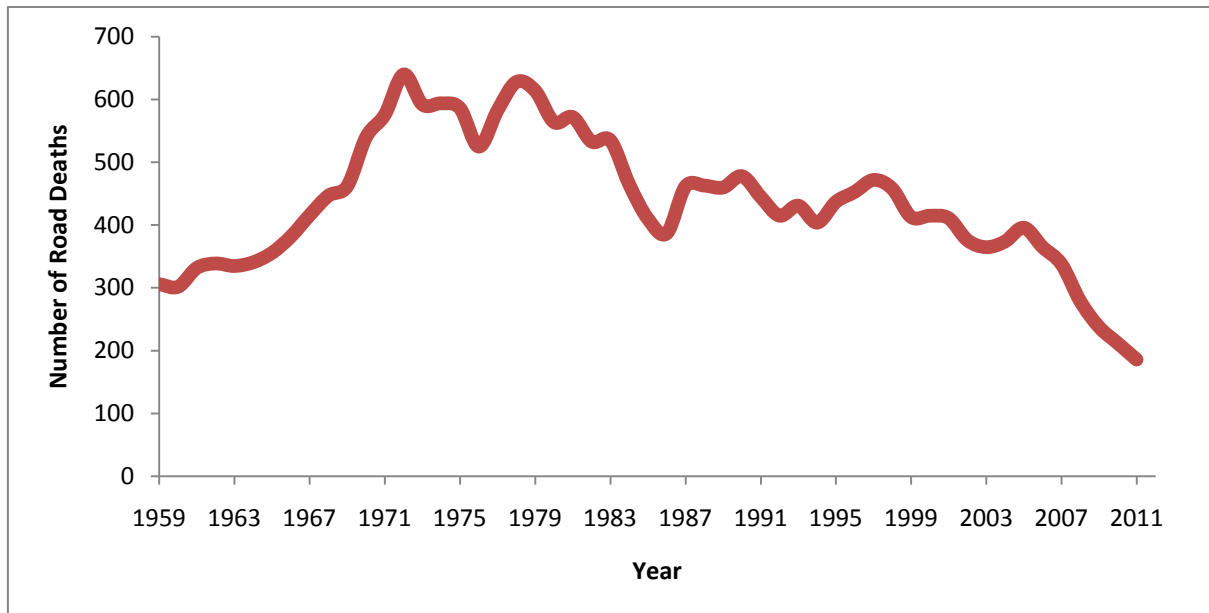
<sup>82</sup> Road Safety Authority. *Road Safety Strategy Plan Review 2010*, 2010, Retrieved from [http://www.rsa.ie/Documents/About%20Us/MinisterialReport\\_AnnualReview2010.pdf](http://www.rsa.ie/Documents/About%20Us/MinisterialReport_AnnualReview2010.pdf)

<sup>83</sup> An Garda Síochána. *Annual Report of an Garda Síochána 2010: the Mission of an Garda Síochána is working with the Communities to Protect and Serve*, Department of Justice, 2010, Retrieved from [www.AnGarda Siochana.ie](http://www.AnGardaSiochana.ie)

<sup>84</sup> An Garda Síochána. *Annual Report of An Garda Síochána 2011, The Mission of An Garda Síochána is working with the Communities to Protect and Serve*, Department of Justice, Retrieved from [www.AnGarda Siochana.ie](http://www.AnGardaSiochana.ie)

<sup>85</sup> Annual Report of An Garda Síochána 2011 (n 84) pp 18

In total from 1959 to 2011 there were a total of 22,901 deaths on Irish roads. The lowest recorded was in 2011 with a total 186 deaths.<sup>86</sup> This shows that the Irish have overall improved in the area road safety.



**Graph 1.8.2.a:** *Number of recorded road deaths from 1959 to 2011.*

The RSA wanted to reduce death on the road over the years of the strategy plan this target was met and also shows a positive result in the court system with cases in the District Court reducing to 13,000 in 2011 from over 21,153 in 2010 and 24,467 in 2009 with 8,651 cases in 2011 leading to disqualification and 591 to imprisonment.<sup>87</sup>

<sup>86</sup> Road Safety Authority. Drink and Driving in Ireland (n 70) pp5

<sup>87</sup> Court Services. Court services annual Report 2010, Department of Justice, 2011, Retrieved from [http://www.courts.ie/Courts.ie/library3.nsf/\(WebFiles\)/4523C03355124B90802578CC0033B0AF/\\$FILE/Courts%20Service%20Annual%20Report%202010.pdf](http://www.courts.ie/Courts.ie/library3.nsf/(WebFiles)/4523C03355124B90802578CC0033B0AF/$FILE/Courts%20Service%20Annual%20Report%202010.pdf)

## **Chapter 2 – Methodology**

## **2.1 Review of surveys in relation to attitudes and behaviour towards drinking and driving.**

The Irish road user's attitude towards drink driving was reported in a number of studies that were performed in relation to road safety. The Social Attitude to Road Traffic Risk in Europe (SARTRE 3) was reviewed which is the third in a series of surveys performed across 23 countries between September 2002 and April 2003 was the most in-depth survey that was performed in the area.

Surveys performed solely on the population within Ireland that was reviewed was the National Safety Council report 2006 (NSC) which was a government sponsored survey performed by Millward Brown between 2000 and 2006 to examine the changes in attitudes. The Irish Insurance Federation research report 2006 (IIF) that was performed by the Lansdowne Market research company between 6th and 20th of April 2006 and the Hibernian Motoring Report 2007(HIB) which took place between the 5<sup>th</sup> and 28<sup>th</sup> of October 2006 both surveys were performed to examine the attitudes to road safety of the general public.

In making policies in relation to drink driving enforcement and changes in law, it is important to have a measure and understanding of the attitude towards drinking and driving. By gauging the attitude towards drink driving it will give an indication on how changes will be greeted by the general public. Table 2.1.a shows reviewed results from the studies of SARTRE 3, IIF, HIB and NSC in relation to drink driving this will give an overview of result from the earliest to the latest study a timescale illustrate the changes in across the years.<sup>88,89</sup>

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<sup>88</sup> R. Fuller, M. Gormley (2007). *The 2007 PSI lecture: Is Ireland ready for a change in drink-driving legislation?* The Irish Journal of Psychology , 2007 , Vol 28, **3-4**, pp 169- 184

<sup>89</sup> R. Fuller, M. Gormley (2004). *SARTRE 3 Ireland*, National Roads Authority Publication , Retrieved from <http://www.nra.ie/Publications/RoadSafety/ArchivedRoadSafetyPublications/>



| <b>Area</b>  | <b>SARTRE 3<br/>2003</b>   | <b>National Safety<br/>Council report<br/>(NSC)2006</b>  | <b>The Irish Insurance<br/>Federation research<br/>report (IIF) 2006</b>  | <b>Hibernian<br/>Motoring Report<br/>(HIB) 2007</b>   |
|--|--|--|---|---|
| <b>Knowledge<br/>based on the<br/>units that can be<br/>consumed to<br/>remain<br/>under the legal<br/>limit 80mg/ml</b> | Average<br>2.3   |  | Average<br>2.15<br><br>The decrease in this<br>area shows that<br>people are becoming<br>more aware of the<br>units or alcohol<br>rather than just a<br>drink |   |
| <b>Attitude<br/>towards drink<br/>driving</b>  | 90% believed that<br>drinking and<br>driving to be the<br>cause of road<br>accidents very<br>often or always | A scale was placed in<br>relation to<br>shamefulness with<br>87% placing drinking<br>and driving as very<br>shameful compared<br>to other legal<br>violations. |   |   |
| <b>Enforcement</b>   |  | 79% agreed that<br>there should be more<br>MAT on the road<br>side   | 48% of the subjects<br>reporting that the<br>most effective was to<br>improve safety is<br>better enforcement   | 57% support for<br>the introduction of<br>MAT believing<br>the policy had a<br>significant effect |
| <b>Expected to be<br/>detected on a<br/>typical journey</b>  | 8.9% males<br>showing the<br>response at being<br>detected with<br>females not<br>showing                    |  | 51% did not find it<br>likely to be detected,<br>38% found it fairly<br>likely and only 8%<br>showed extremely<br>likely.                                     |   |
| <b>Penalties</b>   | 91% believing<br>there should be a<br>more server<br>penalties   | 77% believing there<br>should be a more<br>server penalties  | Subject s asked what<br>is the best deterrent<br>75% stating the<br>legislation resulting<br>in disqualification  |   |

|                  |  |   |   |  |
|------------------|--|---|---|--|
| <b>Behaviour</b> | 70% of subjects reported the you can drink some alcohol with it affecting your driving<br>4 % reported of driving when excessively over the limit this trend is showed in males aged 18-34 | 51% you can drink some alcohol with it affecting your driving | The question was asked using a five point scale on frequency of driving while drunk 15% showed not very often and 2%. |  |
|------------------|--|---|---|--|

**Table 2.1.a:** Results from studies SARTRE 3, National Safety Council report, The Irish Insurance Federation research report, Hibernian Motoring Report<sup>90 91</sup>

Drivers options in relation to BAC is an important aspect and was covered in HIB and SARTRE 3 with 91% of subjects disagreeing that driver should be allowed to chose for themselves their level of BAC. Table 2.1.b shows the percentage of subject's option in relation to BAC.

| Question                         | SARTRE 3 2003 | Hibernian Motoring Report 2007 |
|----------------------------------|---------------|--------------------------------|
| stay at the current level 80mg/l | 24%           | 17%                            |
| be reduced                       | 72%           | 77%                            |
| be reduced to 50mg/l             | 78 %          |                                |
| be zero                          | 57%           | 67%                            |
| be zero for new                  | 90%           |                                |
| finally be increased             | 0%            | 4%                             |

**Table 2.1.b:** Option towards BAC

The results from the studies do show an increase in awareness but also in attitude towards drink driving seeing it as shameful and there shows a greater support over the years for

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<sup>90</sup> P. Anderson (2008). *Report :Reducing Drinking and Drinking in Europe* ,Institute of alcohol Studies London, Retrieved from <http://www.ias.org.uk/resources/papers/europe/phproject/drinkdriving-report.pdf>

<sup>91</sup> R. Fuller, M. Gormley (2007). (n 88) pp 169- 184

enforcement and penalties. The surveys show that the general population has a greater understanding of drunk driving and the role it plays in fatalities.

The SARTRE 3, RSC, IIF and HIB studies all approached the attitude of a sample group of people in relation to road safety. In the SARTRE 3 study the selection choice used the ERSI's RANSAM random sample selection model using the electrical register of each member state creating clusters to finally generate 120 clusters of 16 respondents. The delivery of the questions was based on a semi structured interview that may have generated a personal response to the interviewer.<sup>92</sup> This also may have inclined subjects to answer in a socially acceptable way rather than representing their true feeling also due to the time required to be given by the subject, persons who already have an investment or opinion in relation to road safety may be more likely to comply with the study given again a greater bias.<sup>93</sup>

The other three reports were based on sampling from the general public that did not involve such an intense sampling procedure as the SARTRE 3 study. In the three remaining studies the method of asking questions was a questionnaire filled in directly by the person being surveyed, the questions were generally based on a 5 point scale questionnaire.

All four reports covered the topic of drink driving in some form in relation to enforcement, attitude, knowledge and behaviour. The studies show that the response to changing enforcement levels and BAC will be met with acceptance from the Irish public and in many cases will be welcomed across the years showing a greater percentage of people agreeing the BAC needs to be changed. The expectation of drivers from the studies did not show a great expectancy of being detected for drink driving however across the years the enforcement has increased and the RSA review shows and An Garda Síochána annual review reflects this.

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<sup>92</sup> SARTRE 3 consortium. *European drivers and Road Risk: SARTRE 3 – Part I*, June 2004, Les collections de l'INRETS, pp 29.

<sup>93</sup> SARTRE 3 consortium. (n 92) pp34

From the review of the surveys previously performed in the past in the area of drinking and driving the methods chosen for this study were observations, a survey and semi-structured interviews.

## **2.2 Introduction to Techniques**

The purpose of this study is to gauge the attitude, behaviour and knowledge of students in the age group of 18 to 30 in relation to drinking and driving. The area of drinking and driving was brought to the forefront with the introduction of the lower legal BAC limits for road users in Ireland. Within the study students were a focus as they are a high risk group in relation to traffic collisions on Irish roads.

To obtain a general overview of the Irish road user's attitude to enforcement of the new drink driving limits, observations were made at two Mandatory Alcohol Testing checkpoints ran by An Garda Síochána. The role at the checkpoint was completely observational with interacts limited only to members of An Garda Síochána there was no interaction with the drivers tested at the checkpoints.

The area of behaviour, attitude and knowledge of students towards drinking and driving was obtained via a survey performed on Dublin Institute of Technology campuses. Performing a survey on student is a difficult task as unless there is already an underlining interest in the subject being asked about or the subject directly affects them getting students to participate can be difficult. An incentive was offered to students to participate in the survey in the form of performing a breathalyser test when the survey was completed. Another area that sparked the interest of students was also the presence of An Garda Síochána while performing the surveys. The questions were structured on a single page survey as not to overwhelm the students when filling out the survey and take up too much of their time. The student survey was performed on a large scale with students completing the survey on their own this was due to the time restraints on students between classes and also the attention span given to a topic they do not concern or overly interest them.

To obtain a more in-depth look at behaviour attitude and knowledge of the 18-30 age group and for comparison with the student body, semi-structured interviews were

performed on a peer group in this age bracket. The selected participants for the semi-structured interviews were selected as they were a year out of college after competing different levels of qualifications and where all in full time working positions. The reason for the selection of such participants was to obtain another aspect to the questions as the participants being asked are professionals who have a greater leisure time over the high risk areas such as weekend and all have more of a disposable income. This data obtained will give a small representation of age group of working graduates in relation in the areas of behaviour, attitude and knowledge towards drinking and driving

## **2.3 Techniques Used**

### **2.3.1 Observing Mandatory Alcohol Testing Checkpoints**

In order to obtain a general overview of driver's attitude in Ireland towards enforcement in relation to drinking driving, an assessment was performed by observing Mandatory Alcohol Testing (MAT) Checkpoints with members of An Garda Síochána National Traffic Bureau. The MAT checkpoints that were attended were in an observational role and took place at two separate urban areas within Dublin. These checkpoints were strategically placed by senior members of An Garda Síochána which involved a number different districts working together to establish safe and secure areas for the stopping of vehicles into a secure testing point . The areas that were targeted for the two MAT checkpoints that were attended were major outbound urban routes from Dublin over a bank holiday weekend.

The checkpoints that were attended were of a highly visible nature as the aim was not only to detect persons driving under the influence of alcohol but also in deterring people from drinking and driving by high visibility policing. Bank holiday weekends are periods of high risk on Irish roads in relation traffic collisions, therefore roads exiting the city centre where targeted to reinforce high visibility policing.

The checkpoints were set up on the outbound lane by closing a section of the road and placing highly visible road signage to safety allow members of An Garda Síochána to

perform their duties in a safe manner. There were five to six cars at a time directed into the testing area with a member of An Garda Síochána positioned to perform a breath test on each driver stopped. The equipment used for the preliminary breath testing is the Draeger 6510 devices the devices are dual limit drivers for the detection of the lower limit of breath sample 10mg/100ml of breath and 23mg/100ml of breath. The Draeger is calibrated bi-annually by the medical bureau of road safety that has accreditation under ISO 17025 for the testing.

The purpose of the observations was to gauge driver's reactions in relation to being stopped and breathalysed and also obtain a general overview of the different driver types and also any connections between gender, age and driver type. This was done by walking the line of stopped cars and recording a number of points.

- The ages of the drivers, this was broken into 5 different age brackets 17 – 29 years, 30 - 44 years, 45 - 54 years, 55 to 64 years and 65 years and up. The ages of the driver was based visual appearance and perception as the drivers being tested could not be directly question in relation to their age.
- The gender of the drivers was also recorded to look at any links between male and female driver being stopped such as a relationship with driver type.
- The driver type was recorded so either a specified or normal driver as discussed in section 1.6.1 and 1.6.2 as each driver will be tested at a different limit. In addition to this any professional drivers that were stopped was branched under specified driver as they are in the course of their work.
- Any reactions either positive or negative toward the Gardaí in relation to the MAT checkpoint was also recorded

These were recorded on a general template see appendix 1. The template was used at checkpoint one and checkpoint two recording the same information at both regarding the drivers stopped.

### 2.3.2 Student Survey

The survey technique was used for sampling students the selection process was random selection with the single control point of the only group to be invited to complete the survey was students. The random selection was the process used to obtain a representative sample this was due to the fact that getting students to participate in a survey that does not concern them or interest them is a difficult process therefore random selection was the best option to obtain participants. The question asked where a mixture of quantitative question and qualitative open ended questions

The purpose of this survey was to gauge the attitude, behaviour and knowledge of students in the age group of 18 to 30 in relation to drinking and driving. The questions were broken into 12 questions converging the areas of knowledge behaviour and attitudes, there was also question regarding enforcement on the questionnaire. See appendix 2 for the survey that was given to students

- Question 1 and question 2 on the survey was the general demographics of age and gender. The ages were broken into four age brackets 18 to 21 , 22 to 25 , 26 to 30 and finally the highest of 30+. These questions were asked to obtain and analysis any links between the ages and gender of the students surveyed in relation to the areas of knowledge, behaviour and attitude towards drink driving.
- Question 3 was directly in relation to the type of driver's licence that was held by each student completing the survey. The three types are provisional licence holders that are classified as specified drivers, full licence holder that have held their licence for less than two years are also specified drivers under the law and finally full licence holder that have held a licence for more than two years which are classified as normal or experienced drivers. This was asked in order to quantify the different type of driver licences that are held by students.
- Question 4 was in relation to the area that students are mostly likely to drive either urban, rural or both. This was asked to obtain a general overview of the geographically locations that students drive.

- Question 5 and question 6 were in relation to the behaviour of students in relation to alcohol consumption over a period of time. Alcohol consumption and frequency of consumption is in relation to binge drinking which is a large amount of alcohol consumption over a short period of time. Question 5 asked '*On average how many drinks containing alcohol would you consume on a night out?*' this was broken down into 0 drinks, 1 – 4 drinks, 5 – 9 drinks, 10 – 14 drinks and 15+. This was asked to get an overview of the amount of alcohol consumed on a night out by students. Question 6 '*How often do you drink?*' was broken down into never, daily, weekly, monthly and yearly. This is connected to the frequency of alcohol consumption by students; this was analysed against the amount of alcohol consumed to give an indication of trend drinking among students.
- Question 7 was a behavioural based question '*Have you ever knowingly driven while under the influence of alcohol?*' this can also be linked to the attitude towards drinking and driving. The act of drinking and driving is a risky act not only putting themselves at risk but also other road users therefore by drinking and driving this shows a person's behaviour in relation to the area and also the attitude towards the area by either having previously driven under the influence shows a disregard for personal safety and the safety of others. The question is a direct question to students rather than asking in an alternative way this may induce students to answer in a more socially acceptable manner rather than honestly however due to the time restraints of students filling out the survey this area was approached directly.
- Question 8 again was in relation to behaviour and also attitude – '*Have you ever knowingly been a passenger in a vehicle with a person driving under the influence of alcohol?*' by getting into a car with a driver who has consumed alcohol you are putting yourself at risk. Therefore this shows the student's attitude to the act of drinking and driving by putting themselves at risk by being a passenger and it will show that they accept the act by getting into the car.



- Question 9 was again in relation to behaviour - *Have you ever driven the morning after a night of consuming alcohol?* as the student may understand the fact the driving the night of consuming alcohol is dangerous and there is a risk of being over the legal limit they may not understand that it also dangerous driving the next morning as the alcohol consumed can still have an effect on their driving ability and they may be over the legal limit.
- Question 10 was directly in relation to the new drink driving limits that were brought into enforcement on the 28<sup>th</sup> of October 2011. This question *‘Do you know the current alcohol limit for drivers for the flowing categories?’* was asked directly to the area of knowledge of the students in relation to the new limits. The question was broken into two sections. The first was regarding the limit for specified drivers in the question it was explained that a specified driver is a person who holds a provisional licence or a full driver’s licence for less than a two year period. There were five options given, the legal limit and options that were higher and lower and higher than the 20mg/100ml limit. These options where 10mg/100ml, 20mg/100ml, 50mg/100ml, 80mg/100ml which was the old limit and finally 100mg/100ml. These option where given again for the limit for a normal driver which was explained that is a person who holder a full drivers licence over two years. The limit for a normal driver on Irish roads is 50mg/100ml which was an option given as was the old limit of 80mg/100ml.
- Question 11 was asked regarding the enforcement of drinking and driving from An Garda Síochána in the area of students being breathalysed – *‘Have you been breathalysed in the last 6 months?’* The six month period was given as this was on average the period of time that the new limits where enforceable. This was asked to obtain the experience enforcement of the new limits that has been experience by student who partook in the survey.
- The final question was in relation to behaviour and attitude which was – *‘What in your option is the main deterrent for not drinking and driving?’*.The deterrents where broken into four areas. The first was social awareness of the act of drink and driving and the effect that it can have therefore the first deterrent was the social

stigma of being caught. The second was in relation to the personal effect the being caught will have with the deterrent being the fear of prosecution and penalties. Following from this again the fear of personal consequences of the fact you are committing an illegal act by drinking and driver with the deterrent that it is illegal and finally the reason the why it is an illegal act which the fact that it is dangerous which shows a moral reason for not drinking and driving .

- The area study of each student was asked to give an overview of the different areas that are studied by the students who were surveyed.

### **2.3.3 Semi Structured Interviews**

The semi- structured interviews were performed in a private environment that was relaxed so the participant's answers could be discussed and there was no pressure from the participant to give a socially acceptable answer by disusing the topics of personal perception and personal opinions in relation to drinking and driving.

Each participant was chosen for a peer group with four selection factors that was taken into account.

- Each participant holds a drivers licence this was chosen as this study is directly in relation to road users
- The participants chosen where in the 18 to 30 age group.
- Each participant was a graduate who was one year out of third level education after completing different levels of qualifications. This will give an addition aspect from the point of view from a road user who has recently experienced student life and has moved on from third level of education.
- Each participant is in fulltime employment with additional disposable income that was not available to them while in third level education.

The questions asked within the semi-structured interviews were based on the questions asked on the student survey to aid in the comparison between the two groups. There were additional questions asked in the semi-structured in relation to knowledge, behaviour and attitude of the participants in relation to drinking and driving due to the greater time scale

had with the participants. There was a number of scaled question asked and a number of open ended questions asked for discussion points with the participants to gauge additional information. See appendix 3 for the semi structured interview questionnaire.

- Questions 1 was in relation to the age and gender of the participants again as with the student survey these general demographics of age and gender. The ages were broken into four age brackets 18 to 21 , 22 to 25 , 26 to 30 and finally the highest of 30+. These questions were asked to obtain and analysis any links between the ages and gender of the participants in relation to behaviour, attitudes and knowledge in the area of drinking and driving.
- Question 2 is the area of driver type and links again with the students survey with the question broken into three options - provisional licence holders that are classified as specified drivers, full licence holder that have held their licence for less than two years are also specified drivers under the law and finally full licence holders that have held a licence for more than two years which are classified as normal or experienced drivers.
- Question 3 was in relation to the area that participants are mostly likely to drive either urban, rural or both. This was asked to obtain a general overview of the geographically locations that participants drive.
- Question Four - '*What is your occupation?*' was asked to not for statistical analysis but for a general overview of the type of jobs performed by the participants and also the hours that are done each week by the participant.
- Question 5 – '*On average how many drinks containing alcohol would you consume on a night out*' there were no options given in relation to the number of drinks consumed on a night out. Again this question linked with the student survey and was in relation to the alcohol consumption of the participants. This was asked to obtain the level of alcohol consumed by the participant as a representative sample group. The area of consumption will be investigated with frequency of

consumption to see the trend of drinking among the participants and compare this to the students surveyed,

- Question 6- '*What types of drinks are you likely to drink on a night out (with brands and measures?)*' Was in relation to the brands of alcoholic drinks that are consumed by the participants. This was asked as a discussion point with the participant to obtain information about drinking behaviours. The type of alcohol consumed will also have an effect on BAC levels not only the night of consuming the alcohol but also the morning after
- Question 7- '*How often do you drink?*' again linked to the student survey to obtain the frequency of alcohol consumption among the participants. The amount of alcohol consumed and the frequency will give an indication the trend of drinking among the participants which will be compared the drinking trend among students. As with the student surveyed the participants were given a number of options daily, weekly, monthly, yearly and never.
- Question 8- '*When are you most likely to drink?*' the participants were offered two option weekends and mid-week. This was an additional question put to the participants again in relation to the drinking trend among the participants and also if alcohol is mostly consumed at high risk time on Irish roads such as the weekend period.
- Question 9 was behavioural based question and was directly in relation to drinking and driving – '*Have you ever knowingly driven while under the influence of alcohol?*' Drinking and driving is a risky act not only putting themselves at risk but also other road users therefore by drinking and driving this shows a person behaviour in relation to the area and also the attitude towards the area by drinking and driving this shows a disregard for personal safety and the safety of others. This was the same question put to the students that were surveyed however at the participants are being asked the question rather than filling the questionnaire out themselves a level of answering to social expectations needs to be taken into account. Answering in a socially acceptable manner was put to the participants at

the start of the semi-structured interview where it was made clear that there are no social expectations and to answer in the most honest manner possible.

- Question 10 – ‘*Have you ever driven the morning after a night of consuming alcohol?*’ This was behaviour and a knowledge based question the act of driving the morning after a night of consuming alcohol can be as dangerous as driving the night of consuming alcohol there is a probability that the driver BAC will be over the legal limit. This was the same question given to students to answer.
- Question 11 – ‘*Have you ever knowingly been a passenger in a vehicle with a person driving under the influence of alcohol?*’ This same question was asked on the student survey so a comparison can be made between the behaviour and attitude of the participants and the students. The question was an attitude based question of the participants towards the act of drinking and driver by putting themselves at risk by being a passenger and it will show attitude as seeing the act as acceptable by getting into the car.
- Question 12 – ‘*In your opinion how many drinks can you consume while still remaining under the legal limit?*’ This was an open ended question based on the participants on personal perception of their alcohol consumption how much they think can be consumed while remaining under the legal limit. This question was asked in relation to the attitude of the participants giving an indication to the personal perception of how much can be drunk while the participant can still safely drive.
- Question 13- ‘*Do you know the current alcohol limits for drivers in the following categories?*’ This question was asked directly in relation to the area of knowledge of the participants in relation to the current legal limits. This question also asked on the student survey so the knowledge base of the students and participants can be compared. The question was broken into two sections which asked if the participants knew the legal limits for the two categories the first was for specified drivers in the which it was explained to the participants that a specified driver is a person who holds a provisional licence or a full driver’s licence for less than a two

year period. The second for a normal driver which was explained that is a person who holder a full drivers licence over two years. There were the same five options given to the participants as was given to the students surveyed. There option were the same for both categories of in excessive of 10mg/100ml, 20 mg/100ml which is the limit for specified driver ,50 mg/100ml the limit for normal drivers, 80 mg/100ml the old legal limit and 100 mg/100ml.

- Question 14 was the second question in relation to the legal limit which was an option based question – *‘In your opinion do you think that drivers should be allowed to drink. ’.....*There was five options given to the participants they were no alcohol at all, less alcohol than at present, as much alcohol as at present, more alcohol then at present or as much as they want. This question was asked in relation to the attitude of the participants to the amount of alcohol that can be consumed before driving linking to what the legal ,limit would then translate to.
- Question 15 was asked in relation to the area of enforcement and the participants expectations of the level if enforcement in Ireland. The question is based on a five point scale – *‘In your option, how likely is it you will be checked by An Garda Síochána for alcohol?’* The options given are never, rarely, sometimes, often , very often always.
- Question 16 is again in relation to enforcement but at a different level the question was in relation to the penalties for the offence of drunk and driving. *‘Do you agree or disagree with the following statements?’ “Penalties for drink-driving should be much more sever?”* The options given were strongly agree, agree, neither strongly nor disagree, disagree and strongly disagree. Before answering the question the participants were shown the tables in section 1.7 and the current penalty system and disqualification was explained to the participants.
- Question 17- *‘Have you been breathalysed in the last 6 months’?* Is directly in relation to the experience of enforcement. This question was also given to the students surveyed for comparison. The six month period was given as the new

limits came into enforcement in October 2011 so the period of enforcement was just under the six month period.

- Question 18 was in relation to the main deterrents in relation to drinking and driving. The deterrents given to the participants in the semi-structured interview was the same given to the students surveyed: the fear of prosecution and penalties, social stigma of being caught and it is illegal with only a change in the area of danger with breaking this into the danger to yourself and the danger to others. This question will give an indication as to the attitude of the age group towards the act of drinking and driving and what will deter them from getting behind a wheel of a car after drinking alcohol.
- Question 19 was in relation to the Road Safety Authority television advert as illustrated in section 1.5. This was shown to the participants on an iPad without advising what the advert was in relation to. The question asked after the participant viewed the advert was firstly did they recognise the advert. The second section to the question was an open question asking if the advert relayed to them the importance of the reduction of the legal limit from the general limit of 80mg/100ml.

### **2.3.4 Analysis of results using SPSS**

The programme SPSS was used for the analysis of the observations made at the Mandatory Alcohol Testing checkpoints, the student survey results and also the semi structured interview results. SPSS is a statistical package that is used for statistical analysis in the areas of social science. SPSS is a computer programme that was developed over 30 years and is currently developed and supplied by IBM. This tool was used for descriptive statistics for the results obtained and analysis was performed using frequencies and cross tabulation.<sup>94</sup>

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<sup>94</sup> SPSS Inc. Using SPSS for item analysis: more reliable test assessments using statistics. 1998, SPSS Inc, retrieved from <http://www.spsstools.net/Syntax/ItemAnalysis/UsingSPSSforItemAnalysis.pdf>

The frequencies function was used to obtain the number of reoccurring answers given, each variables was in binary code i.e. 0 = Male 1= Female in order to tabulate the percentages. These frequencies that were tabulated into percentages where displayed using a pie or bar chart.

The cross tabulation function was used to tabulate two variables from the results such as age and gender to ascertain any interaction between the two variables. The result of this cross tabulation displays the frequency distribution between the variables. To obtain a result in relation to a relationship between the two variables a chi-square test was used to obtain the test statistic and its associated Pearson Chi-Square value. A p- value less than or equal to 0.05 indicates a relationship between two variables.<sup>95</sup> The result from the chi-square test was presented in a table accompanied by a table of results to show the relations between the two variables.

### **2.3.5 Aim and Objectives**

To gauge the attitude, behaviour and knowledge of students in the age group of 18 to 30 in relation to drinking and driving

#### **Objectives**

- To attain the general road user's attitude towards drinking and driving enforcement by observing two Mandatory Alcohol Testing checkpoints ran by the Gardaí.
- To perform a survey on the student body, analysis the finding to detect any relationships and trends from the data obtained and state any findings.
- To perform semi-structured interviews with graduates selected and analysis the findings to detect the trends among the participants for comparison with the results from the student survey.
- The disuses the relationships and trends within the results with a focus on the area of behaviour, attitude and knowledge in relation to drinking and driving.
- To discuss the overall conclusions from the results obtained and make recommendations

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<sup>95</sup> UCLA. Academic Technology Services, statistical analysis using SPSS, retrieved from <http://www.ats.ucla.edu/stat/spss/whatstat/whatstat.htm>



## **Chapter 3 - Results and Analysis**

### 3.1 Results from Observing Mandatory Alcohol Testing Checkpoints

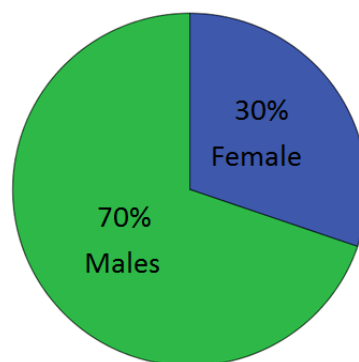
The results from the observations made at the Mandatory Alcohol Testing (MAT) checkpoints were separated into checkpoint one that commenced at 7.30pm and checkpoint two that commenced at 8.30pm. The results from each checkpoint were recorded separately as there were different characteristics at each checkpoint that would affect the analysis of the information recorded. The results were analysed with SPSS under a number of different areas such as gender, driver type and ages bracket with any links between these areas analysed.

#### 3.1.1 Results from checkpoint one commencing at 7.30pm

The first MAT checkpoint that was attended started at 7.30 pm where a total of 43 drivers were observed at this checkpoint. This checkpoint was attended for a total of 30 minutes and all observations were recorded under the sections discussed in 2.3.1. This checkpoint was positioned on a major router exiting Dublin City Centre and observations were performed by monitoring the drivers stopped at the testing area, there was no direct interaction between with the drivers.

##### 3.1.1.1 Gender and Age Brackets of observed drivers

Within the 43 drivers observed 30% were females and 70% were male. See chart 3.1.1.1.a.



**Chart 3.1.1.1.a:** *Percentage of female and male drivers observed*

As the selection process is at random in relation to the cars that are selected, there is no correlation in relation to the number of drivers that were stopped and gender.

Table 3.1.1.1.a shows the gender and the age brackets of the drivers observed for the duration of the 30 minute checkpoint.

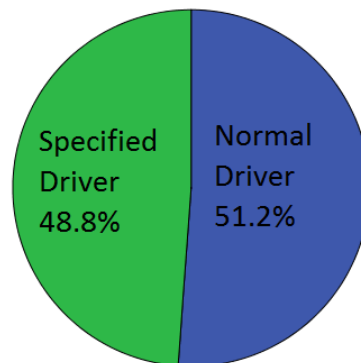
| Driver Age Bracket | Gender        |               | Total         |
|--------------------|---------------|---------------|---------------|
|                    | Female        | Male          |               |
| 17-29              | 53.8%         | 30.0%         | 37.2%         |
| 30-44              | 15.4%         | 30.0%         | 25.6%         |
| 44-54              | 0.0%          | 3.3%          | 2.3%          |
| 45-54              | 15.4%         | 30.0%         | 25.6%         |
| 55-64              | 15.4%         | 0.0%          | 4.7%          |
| 65+                | 0.0%          | 6.7%          | 4.7%          |
| <b>Total</b>       | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.1.1.1.a:** *Percentage of female and male drivers tested in relation to age*

### **3.1.1.2 Driver type**

As discussed the Drager has two separate defined testing limits. Upon approaching the driver the Gardaí performing the breath test advised of the purpose of performing the test under the 2010 Road Traffic Act and then proceeded to request the driver's driving license. The purpose of this is to ensure that the driver is being tested at the correct limit; if a driver's licence is not produced the driver is advised that they will be tested at the lower limit under the law.

From the 43 drivers observed there was a total of 51.2% drivers came under the category of a normal or experienced driver and tested at the higher limit and 48.8% where specified drivers tested at the lower limit.



**Chart 3.1.1.2.a:** *Percentage of drives tested as specified or normal driver*

### **3.1.1.3 Driver Type and Gender**

There is however a relationship between gender and driver type, with female drivers representing a higher percentage of drivers holding a full drivers license for longer than a two year period, see table 3.1.1.3.a and table 3.1.1.3.b from the Pearson Chi-Square value this shows the statistical relation between gender and driver type.

| Driver type      | Gender        |               | Total         |
|------------------|---------------|---------------|---------------|
|                  | Female        | Male          |               |
| Normal Driver    | 76.9%         | 40.0%         | 51.2%         |
| Specified Driver | 23.1%         | 60.0%         | 48.8%         |
| <b>Total</b>     | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.1.1.3.a:** *Percentage of female and male drivers observed in relation to driver type*

| Chi-Square Tests   |                    |    |                       |                      |                      |
|--------------------|--------------------|----|-----------------------|----------------------|----------------------|
|                    | Value              | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| Pearson Chi-Square | 4.949 <sup>a</sup> | 1  | .026                  |                      |                      |

**Table 3.1.1.3.b:** *Chi Squared Test value for table 3.1.1.3.a*

#### **3.1.1.4 General Observations**

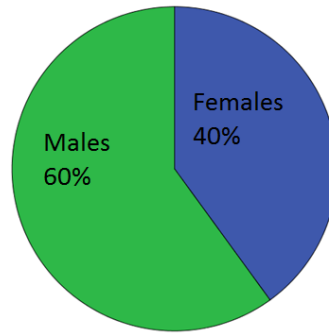
The position that was chosen to conduct the checkpoint was on a major urban route out of Dublin City Centre. The site of the checkpoint was highly visible from the road leading up to the testing area, the positioning of the checkpoint lead to a downfall in part to allow certain drivers to avoid the checkpoint by turning up side roads. This fact was highlighted especially by professional drivers such as taxi drivers passing through the checkpoint. This shows the cooperation of drivers with An Garda Síochána in understanding the importance of performing the Mandatory Alcohol Testing checkpoints.

#### **3.1.2 Results from checkpoint two commencing at 8.30pm**

The second MAT checkpoint attended was on the same evening as the first but at a difference location in the city. Again the checkpoint was set up in a highly visible fashion on a major urban route leading out of Dublin linking to the M50. There was an additional number of Gardaí present at this checkpoint to facilitate a greater number of tests the checkpoint also ran for a total of 45 minutes.

##### **3.1.2.1 Gender and Age Bracket**

There were a total number of 70 drivers observed at this checkpoint 60% of drivers stopped where male and 40% where female see chart 3.1.2.1.a. The selection process was random selection however there was higher number of drivers observed at this checkpoint as there was a higher volume of traffic observed in the area of the checkpoint.



**Chart 3.1.2.1.a:** *Percentage of female and male drivers observed.*

The ages of drivers were again broken into age brackets in the same method as the used at the checkpoint one. See table 3.1.2.1.a for the breakdown of ages and genders of drivers stopped and tested.

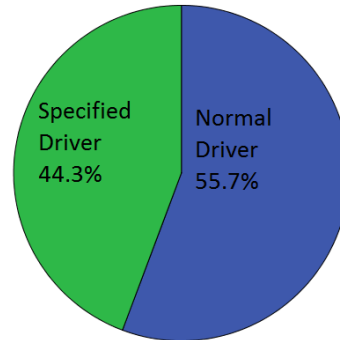
| Driver Age Bracket | Gender        |               | Total         |
|--------------------|---------------|---------------|---------------|
|                    | Female        | Male          |               |
| 17-29              | 39.3%         | 26.2%         | 31.4%         |
| 30-44              | 0.0%          | 2.4%          | 1.4%          |
| 44-64              | 25.0%         | 16.7%         | 20.0%         |
| 45-54              | 0.0%          | 4.8%          | 2.9%          |
| 55-64              | 28.6%         | 45.2%         | 38.6%         |
| 65+                | 7.1%          | 2.4%          | 4.3%          |
| <b>Total</b>       | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.1.2.1.a:** *Percentage of female and male drivers tested in relation to age*

From table 3.1.2.1.a it can be seen that there was a high number of female drivers stopped at this checkpoint compared to checkpoint one.

### 3.1.2.2 Driver Type

There were a total of 55.7% normal drivers tested and 44.3% of specified driver tested checkpoint two.



**Chart 3.1.2.2.a:** *Percentage of drives tested as specified or normal driver*

### 3.1.2.3 Driver Type and Gender

A higher percentage of female drivers at 60.7% compared to males at 52.4% were tested at the higher limit of a normal driver. There is still a high level of specified drivers tested that cannot be contributed to professional drivers as there were no taxis observed at the checkpoint.

| Driver type      | Gender |        | Total  |
|------------------|--------|--------|--------|
|                  | Female | Male   |        |
| Normal Driver    | 60.7%  | 52.4%  | 55.7%  |
| Specified Driver | 39.3%  | 47.6%  | 44.3%  |
| Total            | 100.0% | 100.0% | 100.0% |

**Table 3.1.2.3.a:** *Percentage of female and male drivers observed in relation to driver type*

#### 3.1.2.4 Driver Type and Age Bracket

There is also a correlation between the driver type and age bracket with the highest number of specified drivers being in the age bracket of 17-29 of the drivers tested. In comparison the highest number of normal or experienced drivers was in the age bracket of 45-54 at 51.3%.

| Driver Age Bracket | Driver Type   |               | Total         |
|--------------------|---------------|---------------|---------------|
|                    | Normal        | Specified     |               |
| 17-29              | 15.4%         | 51.6%         | 31.4%         |
| 19-29              | 0.0%          | 3.2%          | 1.4%          |
| 30-44              | 25.6%         | 12.9%         | 20.0%         |
| 44-64              | 2.6%          | 3.2%          | 2.9%          |
| 45-54              | 51.3%         | 22.6%         | 38.6%         |
| 55-64              | 5.1%          | 3.2%          | 4.3%          |
| 65+                | 0.0%          | 3.2%          | 1.4%          |
| <b>Total</b>       | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.1.2.4.a:** *Percentage of driver type in relation to age*

| Chi-Square Tests   |                     |    |                       |
|--------------------|---------------------|----|-----------------------|
|                    | Value               | df | Asymp. Sig. (2-sided) |
| Pearson Chi-Square | 14.991 <sup>a</sup> | 6  | <b>.020</b>           |

**Table 3.1.2.4.b:** *Chi Squared Test value for table3.1.2.4.a*



### **3.1.2.5 General Observation**

At checkpoint two the positioning of the testing area was placed to ensure that drivers coming upon the testing area would be unable to turn off side roads and any attempts to avoid the checkpoint was be directly visible to members of An Garda Síochána.

Checkpoint two took place in a more residential area then in checkpoint one as a result there were no commercial vehicles such as taxis tested at this checkpoint bar a single bus driver in the course of his duties. There was also a greater flow of traffic through the testing area compared to checkpoint one.

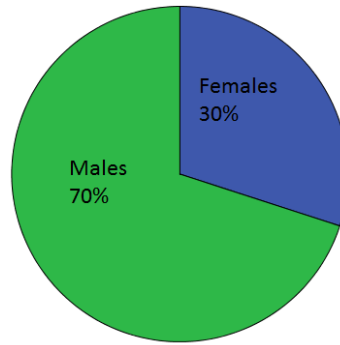
## **3.2 Results from Student Survey**

The student survey was performed on two separate dates at two separated Dublin Institute of Technology campus locations. The first was on the 26<sup>th</sup> of March 2012 at the entrance to Dublin Institute of Technology Marlborough Street within the Cathal Brugha Street campus. The second survey was performed at the Dublin Institute of Technology Kevin Street campus on the 29<sup>th</sup> of March. A member of An Garda Síochána was present at both areas while the surveys where being performed, An Garda Síochána provide the Drager breathalyser with individual mouth pieces for each test preformed.

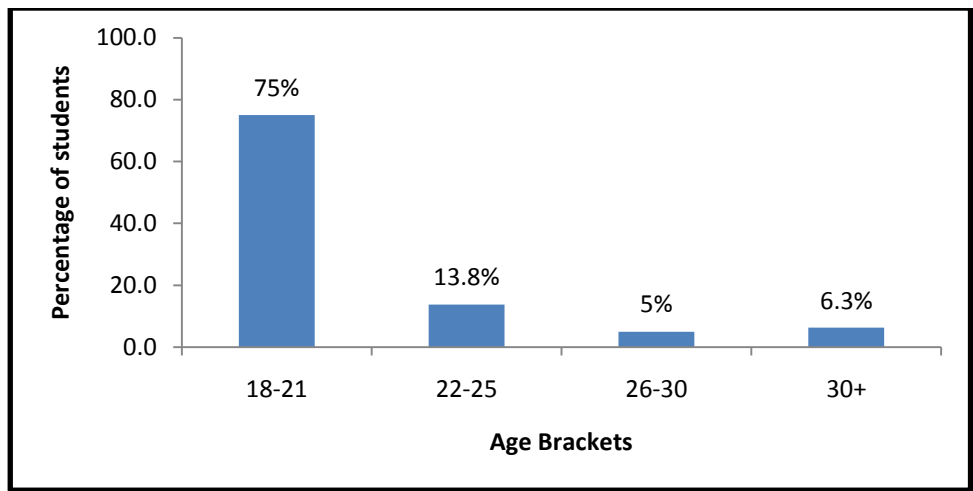
In total there were 132 surveys performed with 80 being eligible for analysis, the surveys that where rejected was due to consent form not signed or the survey was not completed bar the general questions that was asked.

### **3.2.1 Age and Gender**

The general demographic of age and gender was asked to obtain and analysis any links between the ages and gender in relation to the areas of knowledge, behaviour or attitude towards drinking and driving. Chart 3.2.1.a shows the percentage of males and females that that was surveyed.

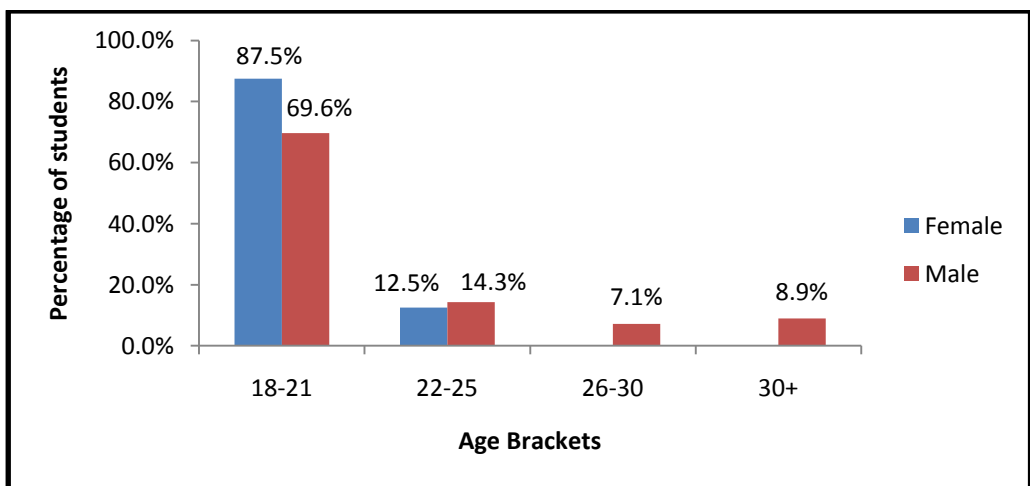


**Chart 3.2.1.a:** *Percentage of male and female students surveyed*



**Chart 3.2.1.b:** *Percentage breakdown of ages of student's surveyed.*

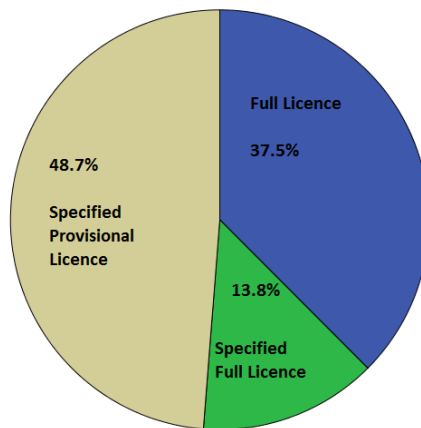
The only control point for the selection process was students were the only group invited to complete the survey. The process selection random selection with the students passing by the area that the survey was being performed therefore no connection between the gender and the age group of the students was found.



**Chart 3.2.1.c:** *Percentage of male and female surveyed in respective age brackets.*

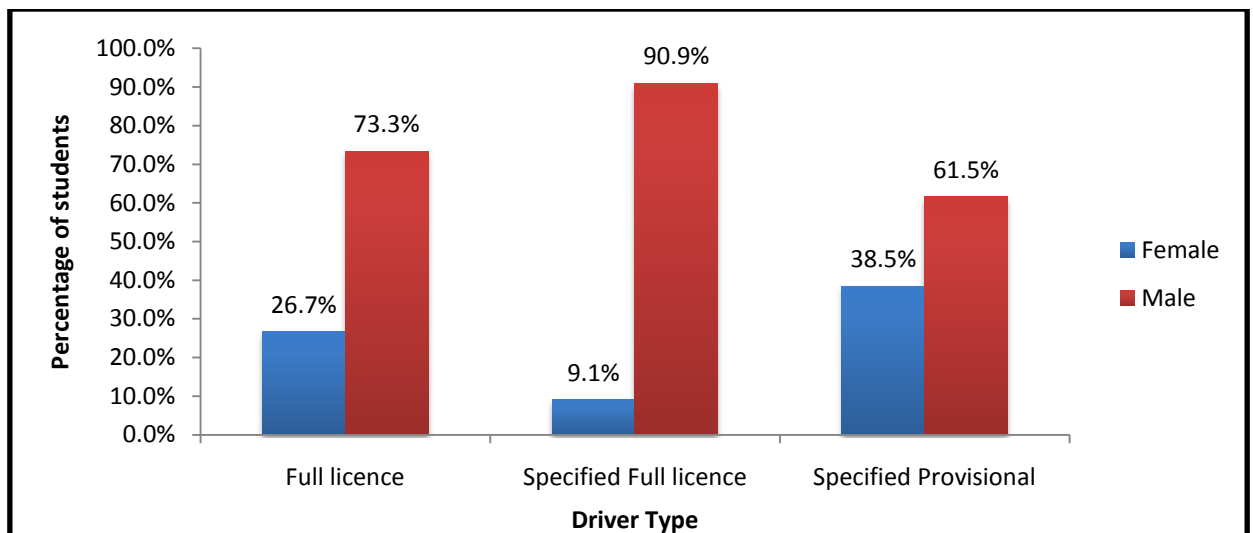
### 3.2.2 Driver type, age and gender

The area of driver type was broken into three sections Full Licence Holders, Specified Drivers whom hold a full licence under a two year period and Specified Drivers whom hold provisional licences. Chart 3.2.2.a shows the percentage of driver type of the students surveyed.



**Chart 3.2.2.a:** *Percentage of driver type.*

As the selection process was at random and dependent on the students present in the area at the time of the survey being performed. Chart 3.2.2.b shows the percentage of respective female and males surveyed and the type of licence that they hold.



**Chart 3.2.2.b:** *Percentage of females and males in relation to driver type*

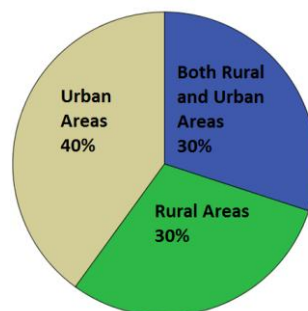
The highest risk group in relation to being involved in a traffic collision are males from the age of 17 to 25; therefore the link between the age group and driver type was looked as see table 3.2.2.a below.

| Driver Type            | Age           |               |               |               | Total         |
|------------------------|---------------|---------------|---------------|---------------|---------------|
|                        | 18-21         | 22-25         | 26-30         | 30+           |               |
| Full licence           | 28.3%         | 54.5%         | 100.0%        | 60.0%         | 37.5%         |
| Specified Full licence | 16.7%         | 9.1%          | 0.0%          | 0.0%          | 13.8%         |
| Provisional licence    | 55.0%         | 36.4%         | 0.0%          | 40.0%         | 48.8%         |
| <b>Total</b>           | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.2.2.a:** *Percentage student ages in relation to driver type.*

### 3.2.3 Areas driven

The question in relation to the area that student are most likely to driver was asked. Those living in a rural area and travelling to Dublin to attend college and students who live and drive in an urban area regardless of the city. Chart 3.2.3.a shows the areas where students surveyed are most likely to drive.

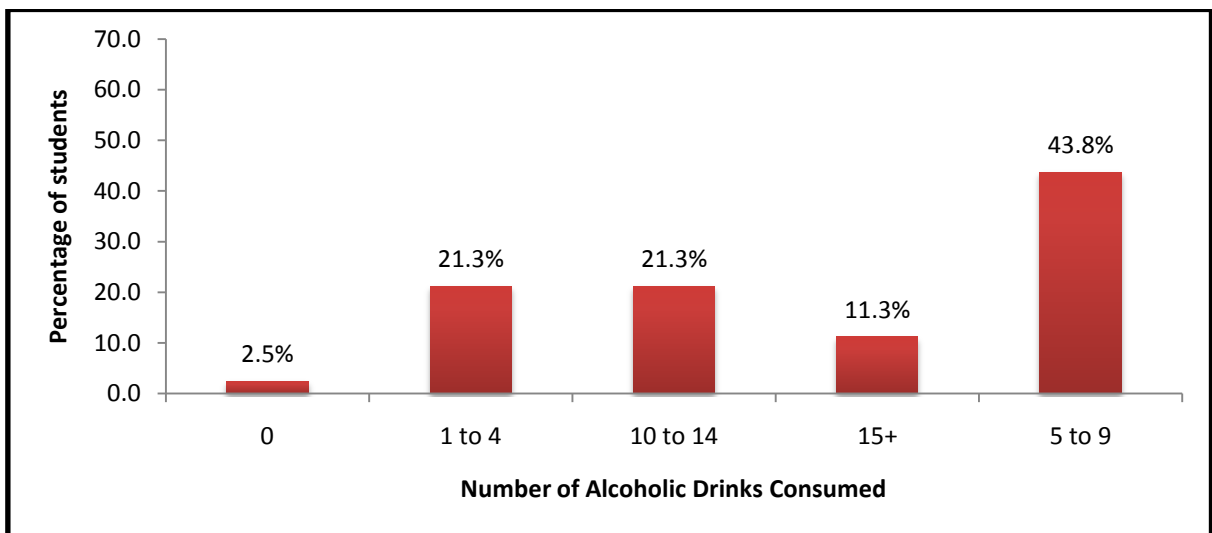


**Chart 3.2.3.a:** *Percentage of students driving in urban areas, rural areas and both urban and rural areas*

There is an overall even distribution of students driving in both rural and urban areas with the higher percentage driving in urban areas. This is just a general overview of the areas that are driven by students.

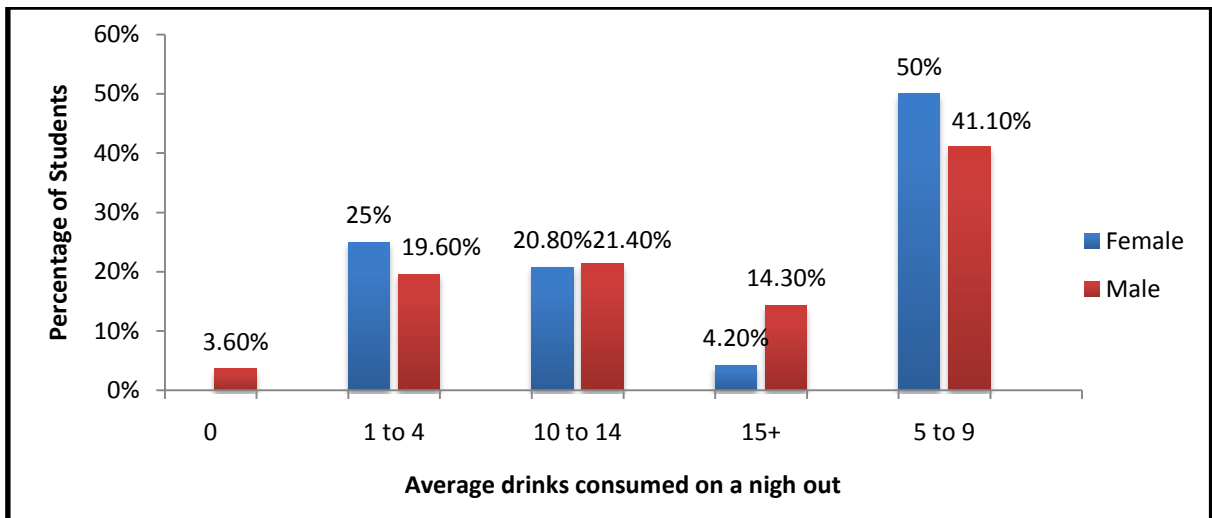
### 3.2.4 Alcohol Consumption

The level of alcohol consumption was investigated among the students surveyed as the level of alcohol consumed over a period of time will affect the driver's BAC as discussed in section 1.4. Chart 3.2.4.a shows the average number of alcoholic drinks consumed on a night out. The highest percentage was on average 5 to 9 drinks consumed on a night out at 43.8% followed by 10 to 14 drinks at 21.3% and equally 1 to 4 drinks at 21.3% with only 2.5% of students surveyed advising that did not consume alcohol at all. The highest number of alcoholic drinks consumed at 15+ drinks on an average night out represents 11.5% of the students surveyed.



**Chart 3.2.4.a:** *Average alcoholic drinks consumed on a night out.*

The relationship between female and male students drinking habits was also looked at. Chart 3.2.4.b shows the average alcohol consumption of the female and male students surveyed.



**Chart 3.2.4.b:** *Percentage of the number of alcoholic drinks consumed on an average night out by female and male students surveyed.*

The ages of students in relation to their consumption of alcohol was investigated see table 3.2.4.a.

| Average alcoholic drinks consumed on a night | Age           |               |               |               | Total         |
|--|---------------|---------------|---------------|---------------|---------------|
|  | 18-21         | 22-25         | 26-30         | 30+           |               |
| 0  | 0.0%          | 9.1%          | 0.0%          | 20.0%         | 2.5%          |
| 1 to 4                                       | 23.3%         | 9.1%          | 0.0%          | 40.0%         | 21.2%         |
| 10 to 14                                     | 18.3%         | 27.3%         | 50.0%         | 20.0%         | 21.2%         |
| 15+  | 11.7%         | 18.2%         | 0.0%          | 0.0%          | 11.2%         |
| 5 to 9                                       | 46.7%         | 36.4%         | 50.0%         | 20.0%         | 43.8%         |
| <b>Total</b>                                 | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.2.4.a:** *Percentage of students ages in relation to the average number of alcoholic drinks consumed on a night out.*

The trend of binge drink is in relation to the time of consumption and how much is consumed during this time therefore the frequency that alcohol is consumed and the amount of alcohol that is consumed was looked at see table 3.2.5.b.

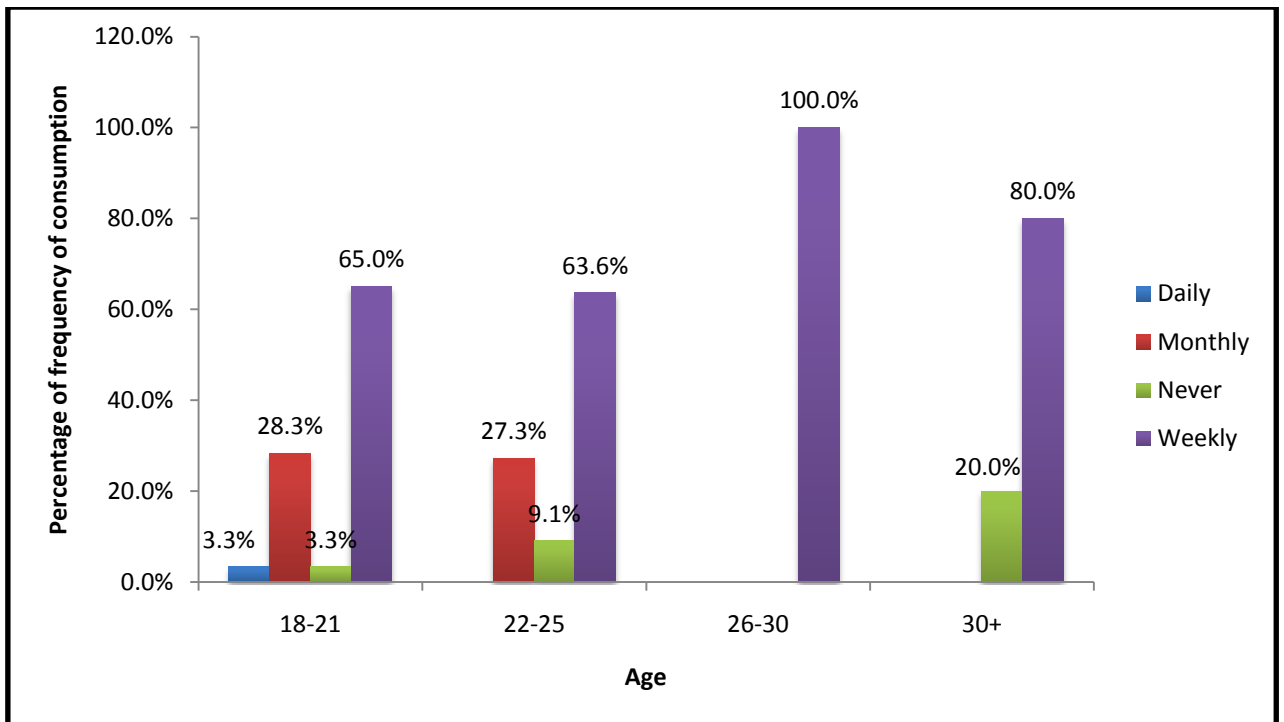
| Average alcoholic drinks consumed on a night | How often do you drink |               |               |               | Total         |
|--|------------------------|---------------|---------------|---------------|---------------|
|  | Daily                  | Monthly       | Never         | Weekly        |               |
| 0  | 0.0%                   | 0.0%          | 50.0%         | 0.0%          | 2.5%          |
| 1 to 4                                       | 50.0%                  | 30.0%         | 50.0%         | 14.8%         | 21.2%         |
| 10 to 14                                     | 50.0%                  | 20.0%         | 0.0%          | 22.2%         | 21.2%         |
| 15+  | 0.0%                   | 0.0%          | 0.0%          | 16.7%         | 11.2%         |
| 5 to 9                                       | 0.0%                   | 50.0%         | 0.0%          | 46.3%         | 43.8%         |
| <b>Total</b>                                 | <b>100.0%</b>          | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.2.4.b:** *Frequency of alcohol consumption and average alcoholic drinks consumed*

| Chi-Square Tests          |                     |    |                       |
|---------------------------|---------------------|----|-----------------------|
|                           | Value               | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 50.990 <sup>a</sup> | 12 | <b>.000</b>           |

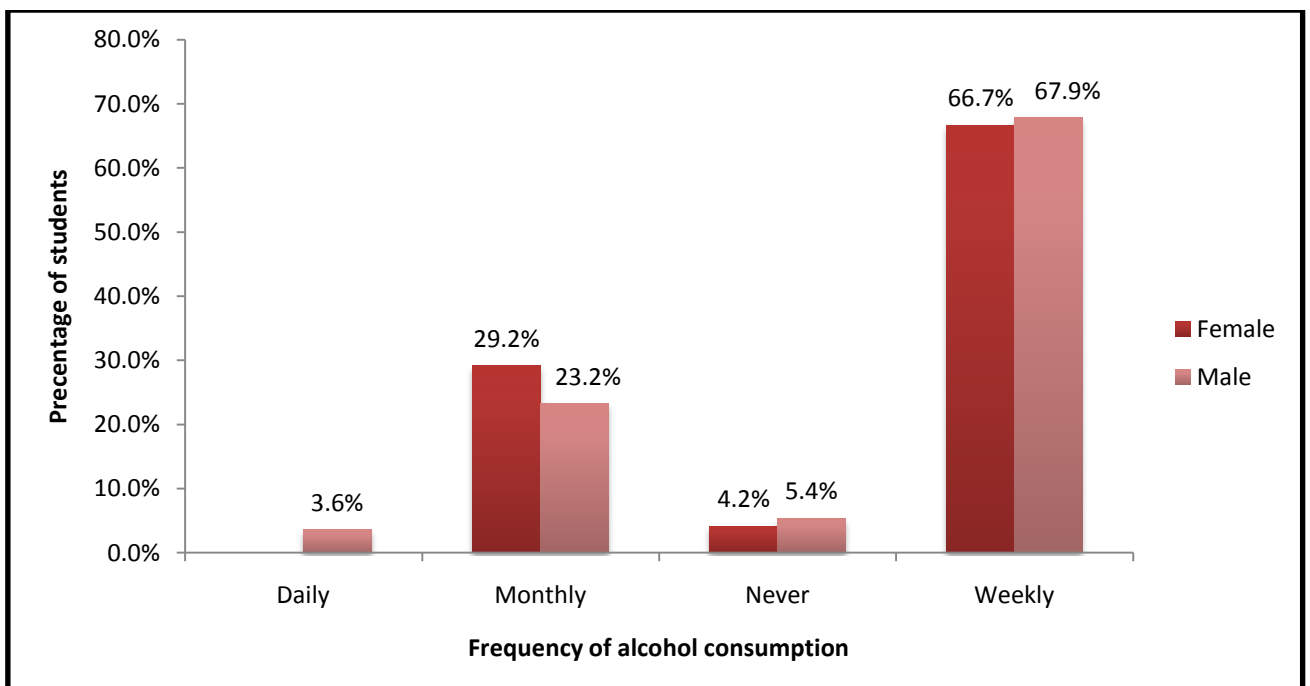
**Table 3.2.4.c:** *Chi Squared Test value for table 3.2.4.b*

The rate of consumption can again be broken down into age and gender see chart 3.2.4.c and chart 3.2.4.d.



**Chart 3.2.4.c:** *Percentage of frequency of consumption in relation to age*

Alcohol is consumed most frequently on a weekly base across all age brackets. This trend is also seen in chart 3.2.4.d with both female and male students having the highest consumption of alcohol on a weekly base.

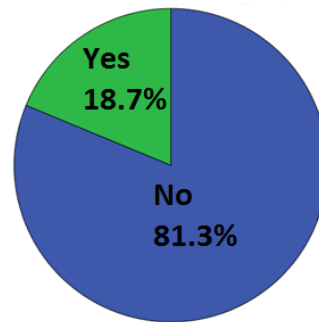


**Chart 3.2.4.d:** *Frequency of alcohol among female and male students surveyed.*



### 3.2.5 Drinking and Driving

The topic of drinking and driving was directly asked on the survey, this area was in relation to behaviour and attitude with the question of have you ever driving under the influence of alcohol. Chart 3.2.5.a shows the percentage of students who answered yes or no in relation to have driven under the influence of alcohol.



**Chart 3.2.5.a:** *Percentage of students who has driven under the influence of alcohol*

The area of gender and driving under the influence of alcohol was looked at to see if there is a direct link between them see table 3.2.5.a.

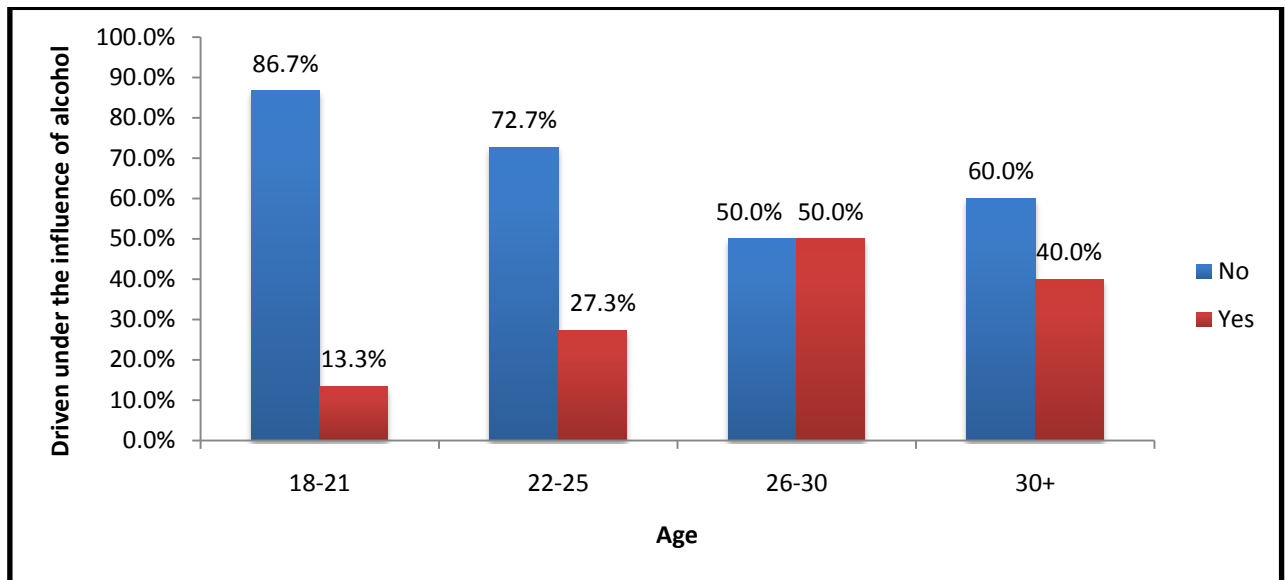
| Have you ever driven under the influence of alcohol | Gender |        | Total  |
|---|--------|--------|--------|
|   | Female | Male   |        |
| No  | 95.8%  | 75.0%  | 81.2%  |
| Yes   | 4.2%   | 25.0%  | 18.8%  |
| Total   | 100.0% | 100.0% | 100.0% |

**Table 3.2.5.a:** *Percentage of female and male student's who has driven under the influence of alcohol*

| Chi-Square Tests   |                    |    |                       |                      |                      |
|--------------------|--------------------|----|-----------------------|----------------------|----------------------|
|                    | Value              | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| Pearson Chi-Square | 4.786 <sup>a</sup> | 1  | .029                  |                      |                      |

**Chart 3.2.5.b:** *Chi Squared Test value for table 3.2.5.a*

There is a direct relationship between the genders and drinking and driving with a Pearson chi squared value of 0.029. As seen in table 3.2.5.a male students showed a higher percentage of previously driven under the influence of alcohol. The area of drinking and driving in relation to age was investigated see chart 3.2.5.b



**Chart 3.2.5.b:** *Percentage of students who have driven under the influence of alcohol in relation to age.*

The area of driver type and cases of driving under the influence was also investigated see table 3.2.5.c.

| Driver Type            | Have you ever driven under the influence |               | Total         |
|------------------------|--|---------------|---------------|
|                        | No                                       | Yes           |               |
| Full licence           | 30.8%                                    | 66.7%         | 37.5%         |
| Specified Full licence | 13.8%                                    | 13.3%         | 13.8%         |
| Provisional licence    | 55.4%                                    | 20.0%         | 48.8%         |
| <b>Total</b>           | <b>100.0%</b>                            | <b>100.0%</b> | <b>100.0%</b> |

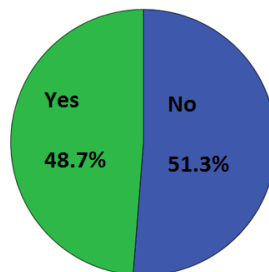
**Table 3.2.5c:** *Drink driving in relation to driver type*

| Chi-Square Tests          |                    |    |                       |
|---------------------------|--------------------|----|-----------------------|
|                           | Value              | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 7.321 <sup>a</sup> | 2  | <b>.026</b>           |

**Table 3.2.5.d:** *Chi Squared Test value for table 3.2.5.c*

There is a direct relationship between driver type and driving under the influence of alcohol with a Pearson Chi-Square value of 0.026 see table 3.2.5.d.

The attitude of students in relation to accepting the act of drinking was investigated. See chart 3.2.5.c for the percentage of students who have been a passenger in a car while the driver was under the influence of alcohol.



**Chart 3.2.5.c:** *Percentage of students would have been a passenger in a car while the driver was under the influence of alcohol.*

The relationship between gender and being a passenger in a car while the driver is under the influence was looked at see table 3.2.5.e.

| Gender       | Have you been a passenger with someone driving under the influence |               | Total         |
|--------------|--|---------------|---------------|
|              | No   | Yes           |               |
| Female       | 41.5%  | 17.9%         | 30.0%         |
| Male         | 58.5%  | 82.1%         | 70.0%         |
| <b>Total</b> | <b>100.0%</b>  | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.2.5.e:** *Female and male students who have and been a passenger in a car while the driver was under the influence of alcohol*

| Chi-Square Tests          |                    |    |                       |                      |                      |
|---------------------------|--------------------|----|-----------------------|----------------------|----------------------|
|                           | Value              | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| <b>Pearson Chi-Square</b> | 5.236 <sup>a</sup> | 1  | <b>.022</b>           |                      |                      |

**Table 3.2.5.f:** *Chi Squared Test value for table 3.2.5.e*

It was found that there is a direct relationship between these two areas with a Pearson Chi-Square value of 0.22 see table 3.2.5.f.

With a relationship between gender and being a passenger in a car while the driver is under the influence of alcohol the area of age was then looked at to see if there was a relationship also see table 3.2.5.g.

| Have you been a passenger with someone driving under the influence of alcohol | Age           |               |               |               | Total         |
|---|---------------|---------------|---------------|---------------|---------------|
|   | 18-21         | 22-25         | 26-30         | 30+           |               |
| No  | 60.0%         | 36.4%         | 25.0%         | 0.0%          | 51.2%         |
| Yes   | 40.0%         | 63.6%         | 75.0%         | 100.0%        | 48.8%         |
| <b>Total</b>  | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

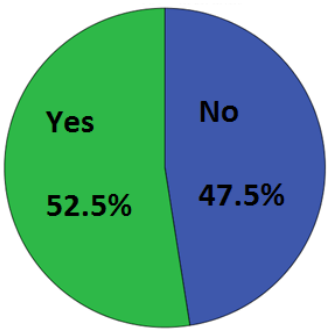
**Table 3.2.5.g:** *Age in relation to students who have been a passenger in a car with the driver under the influence of alcohol*

| Chi-Square Tests          |                    |    |                       |
|---------------------------|--------------------|----|-----------------------|
|                           | Value              | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 9.174 <sup>a</sup> | 3  | <b>.027</b>           |

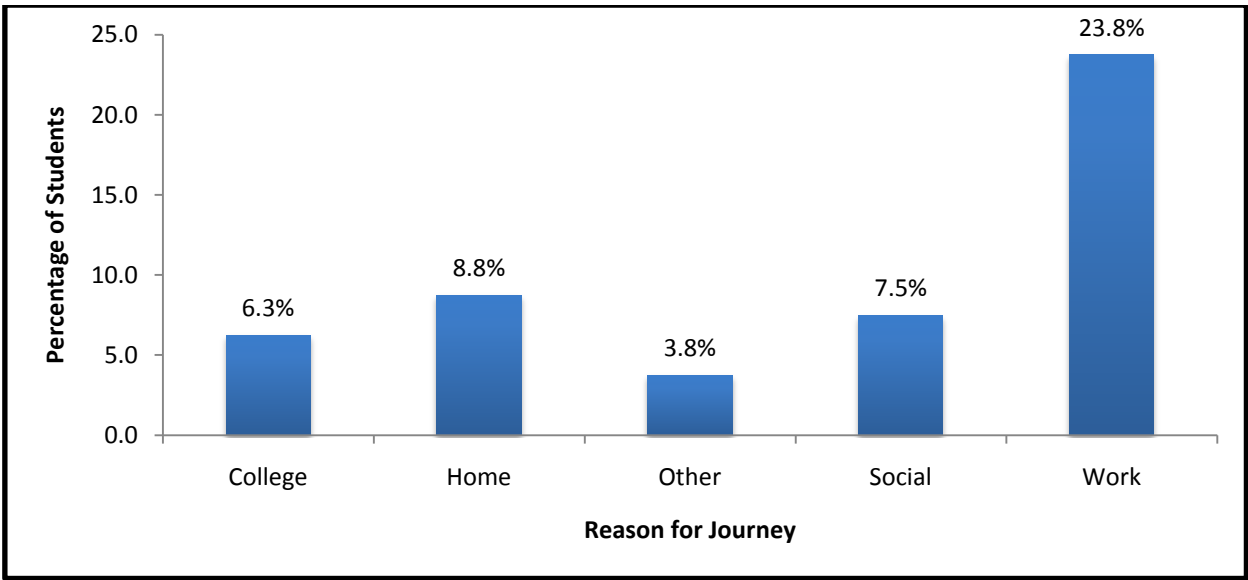
**Table 3.2.5.h:** *Chi Squared Test value for table 3.2.5.g*

There is a direct relationship with age as well as gender with a Pearson Chi-Square value of 0.027 see table 3.2.5.h.

The area of driving the morning after consuming alcohol was also looked as the effects of alcohol still has an effect on a person’s driving ability the morning after the consumption of alcohol. There was a total of 52.5% of students surveyed who advised that have driven the morning after consuming alcohol see chart 3.2.5.d.



**Chart 3.2.5.d:** *Percentage of students who drove the morning after consuming alcohol*

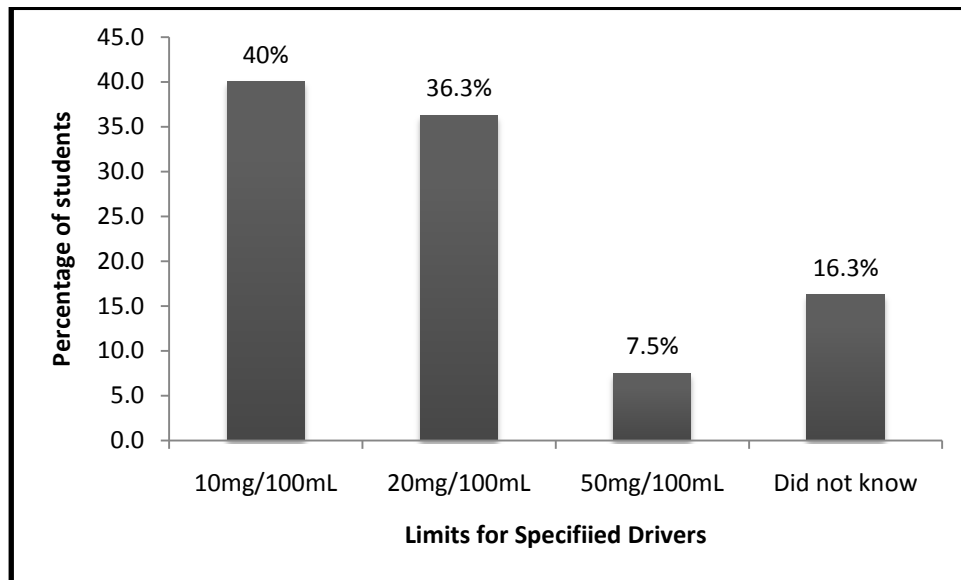


**Chart 3.2.5.e:** *Reason for the journey*

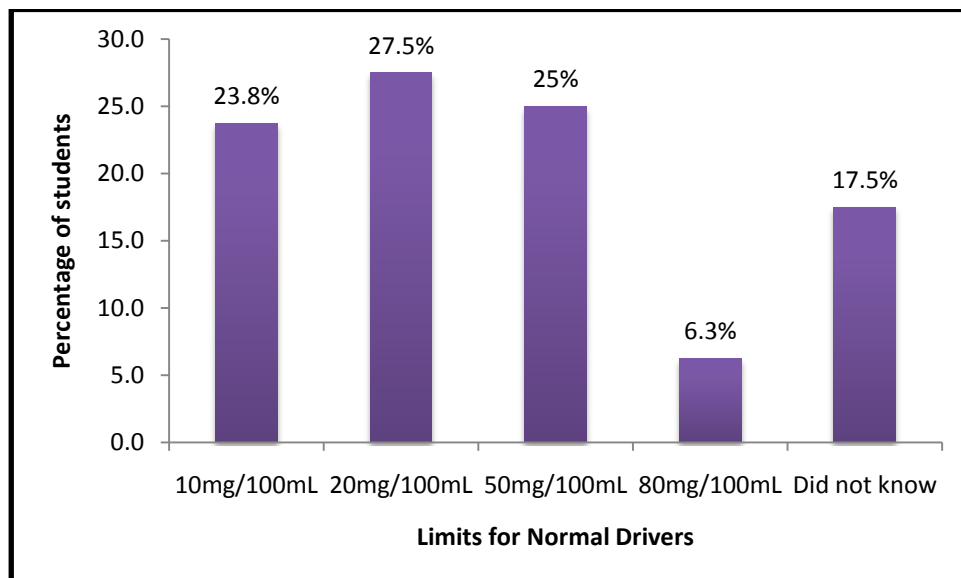
The main reason for the journey at 23.8% was to go to work see chart 3.2.5.e.

### 3.2.6 Legal Limits

The area of knowledge of students directly in relation to the new limits see Chart 3.2.6.a shows the percentage of answers given by students in relation to the limits for specified drivers and chart 3.2.6.b for the limits for normal drivers.



**Chart 3.2.6.a:** *Limits given by students for specified drivers*



**Chart 3.2.6.b:** *Limits given by students for normal drivers*

The link between gender and knowledge in relation to the drink driving limits was investigated see table 3.2.6.a for the limit for specified drivers. This link was looked as to

see if there was a relationship between the knowledge base of female and male students in relation to the drink driving limits.

| Legal limit for Specified Driver | Gender        |               | Total         |
|----------------------------------|---------------|---------------|---------------|
|                                  | Female        | Male          |               |
| 10mg/100mL                       | 62.5%         | 30.4%         | 40.0%         |
| 20mg/100mL                       | 29.2%         | 39.3%         | 36.2%         |
| 50mg/100mL                       | 0.0%          | 10.7%         | 7.5%          |
| Did not know                     | 8.3%          | 19.6%         | 16.2%         |
| <b>Total</b>                     | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.2.6.a:** *Female and male students answers for the legal limit for specified drivers*

| Chi-Square Tests          |                    |    |                       |
|---------------------------|--------------------|----|-----------------------|
|                           | Value              | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 8.708 <sup>a</sup> | 3  | <b>.033</b>           |

**Table 3.2.6.b:** *Chi Squared Test value for table 3.2.6.a*

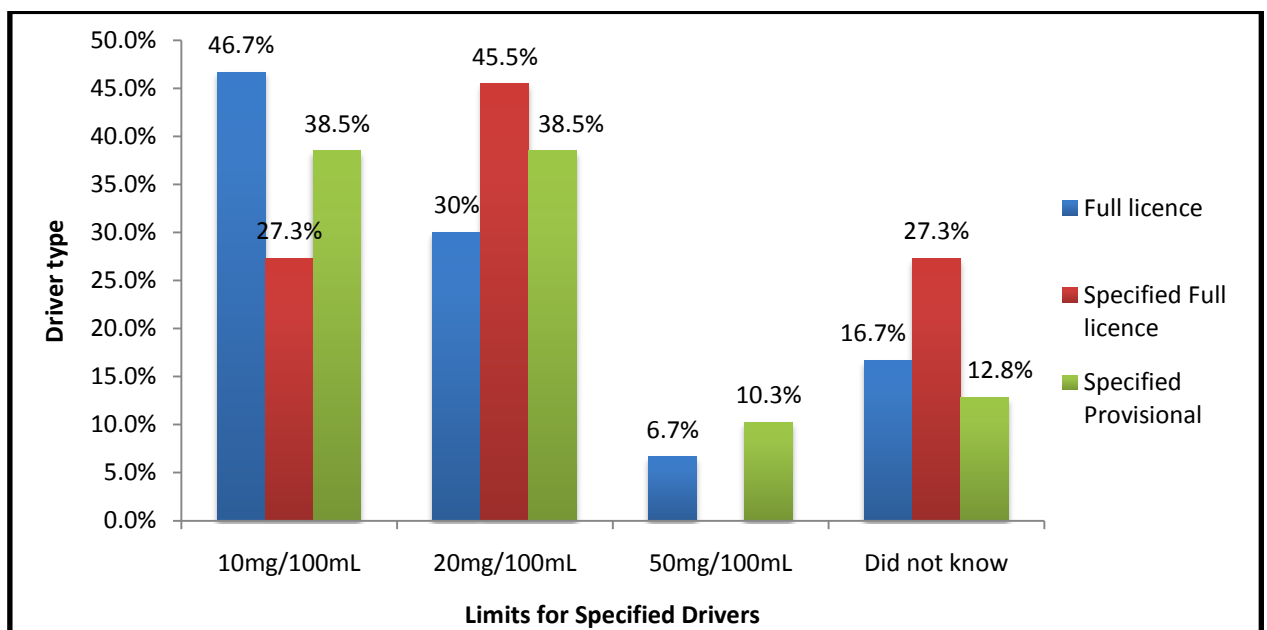
There is a relationship between gender and the knowledge in relation to the limit for specified drivers with a Pearson Chi-Square value of 0.33.

This analysis was repeated for the legal limits for normal driver and gender see table 3.2.6.c.

| Legal limit for Normal Drivers | Gender |        | Total  |
|--------------------------------|--------|--------|--------|
|                                | Female | Male   |        |
| 10mg/100mL                     | 41.7%  | 16.1%  | 23.8%  |
| 20mg/100mL                     | 29.2%  | 26.8%  | 27.5%  |
| 50mg/100mL                     | 16.7%  | 28.6%  | 25.0%  |
| 80mg/100mL                     | 0.0%   | 8.9%   | 6.2%   |
| Did not know                   | 12.5%  | 19.6%  | 17.5%  |
| Total                          | 100.0% | 100.0% | 100.0% |

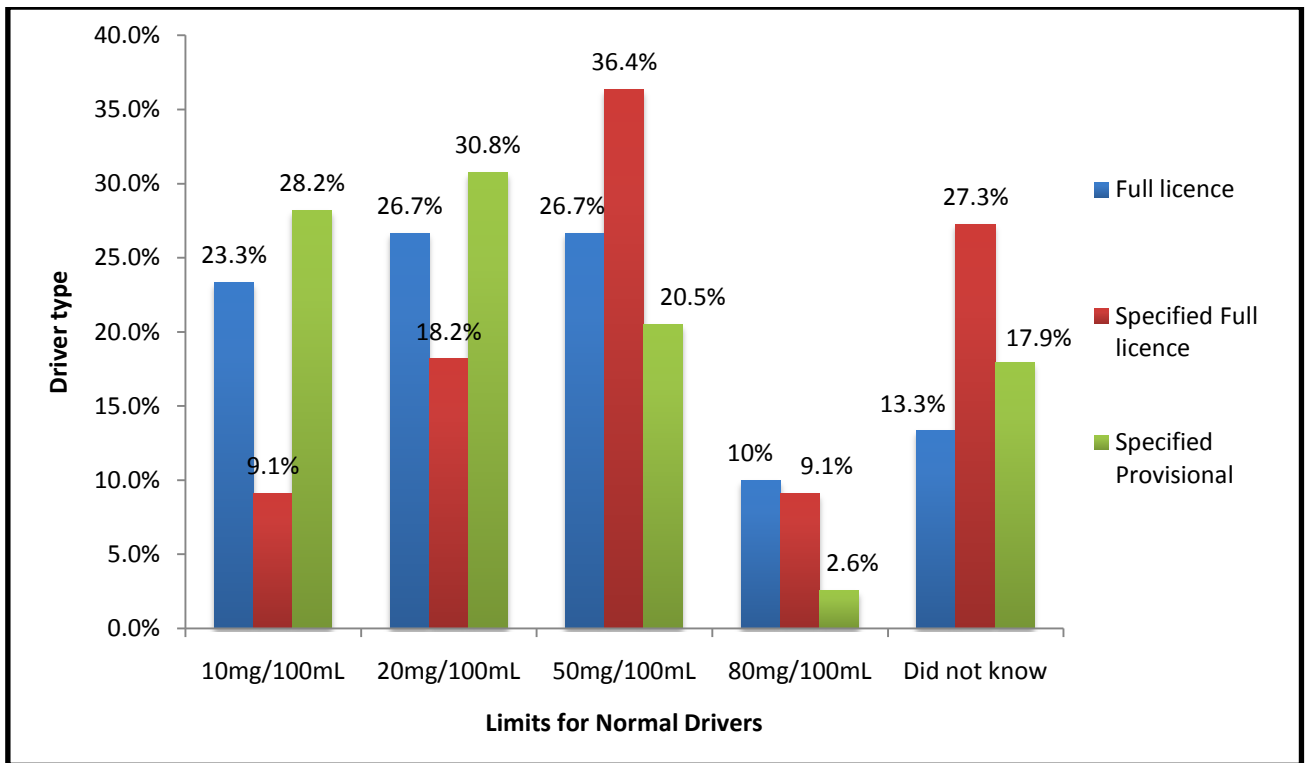
**Table 3.2.6 c:** Female and male students answers for the legal limit for normal drivers

The area of driver type and knowledge of legal limit for specified driver was looked at see chart 3.2.6.c.



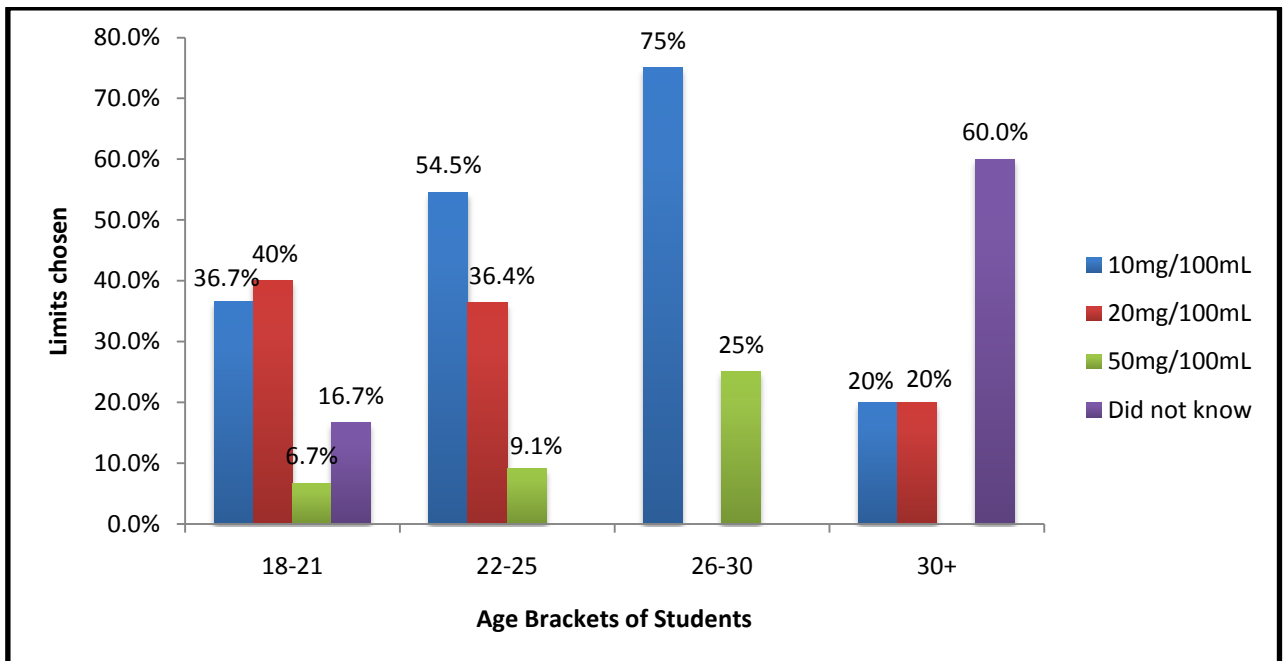
**Chart 3.2.6.c:** Percentage driver types in relation to the limits for specified drivers



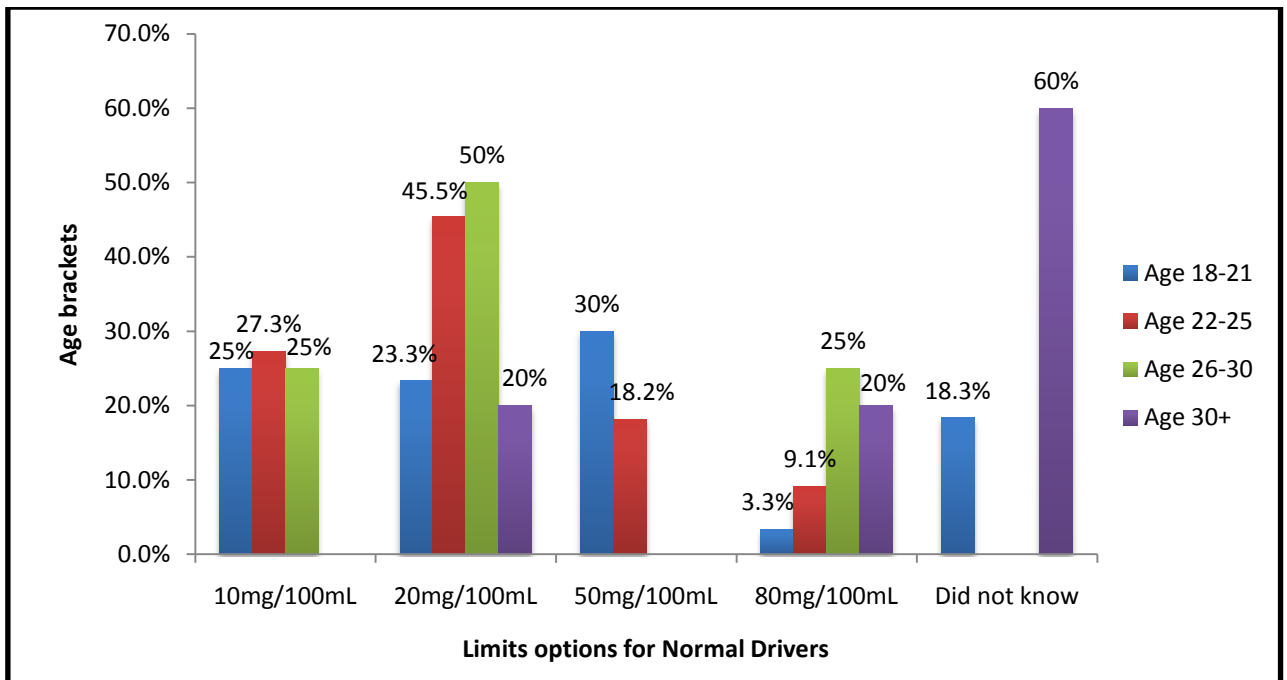


**Chart 3.2.6.d:** *Percentage of driver type in relation to the legal limit for normal drivers*

The area of knowledge of the legal limits can also be broken down within the age brackets of the students surveyed see chart 3.2.6.e. for specified limit and chart 3.2.6.f for normal limit.



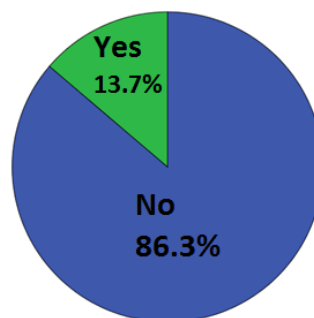
**Chart 3.2.6.e:** *Age brackets in relation to the legal limit for specified drivers*



**Chart 3.2.6.f:** *Age brackets in relation to the legal limit for specified drivers*

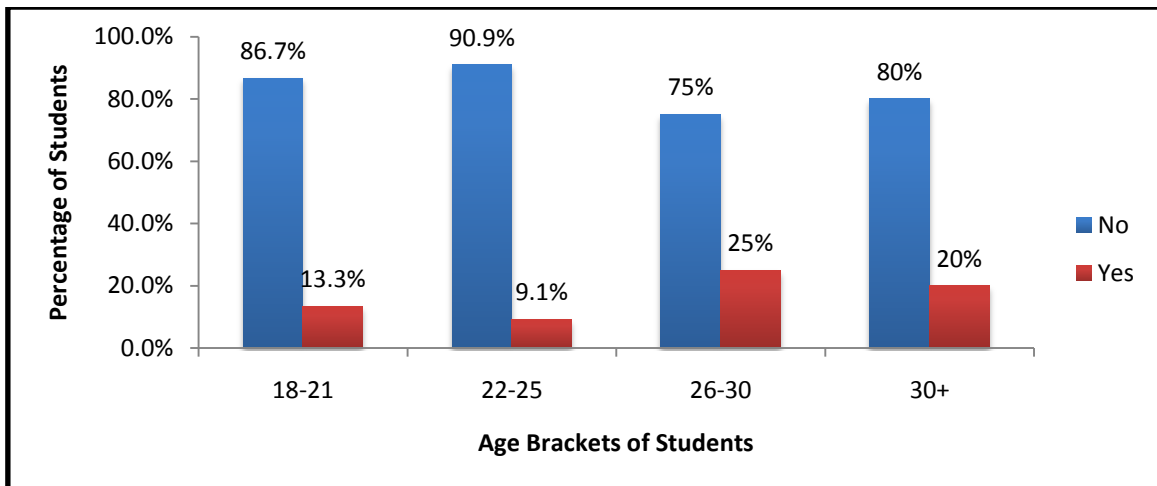
### 3.2.7 Enforcement

The area of enforcement was looked at as the enforcement of drinking and driving is a key part in implementing new legislation. Of the students surveyed only 13.8% were breathalysed by An Garda Síochána in the last six months



**Chart 3.2.7.a:** *Percentage of students who have been breathalysed in the last six months*

The highest percentage of age groups that was breathalysed was the 26-30 year old age bracket at 25% advising that they have been stopped in the last six months. See chart 3.2.7.b



**Chart 3.2.7.b:** *Percentage of students in relation to age that have been breathalysed in the last six months*

The relationship between driver type and being breathalysed was investigated see table 3.2.7.a. There is a relationship with the driver type and being breathalyser in the last six months with a Pearson Chi-Square value of 0.002 see table 3.2.7.b.

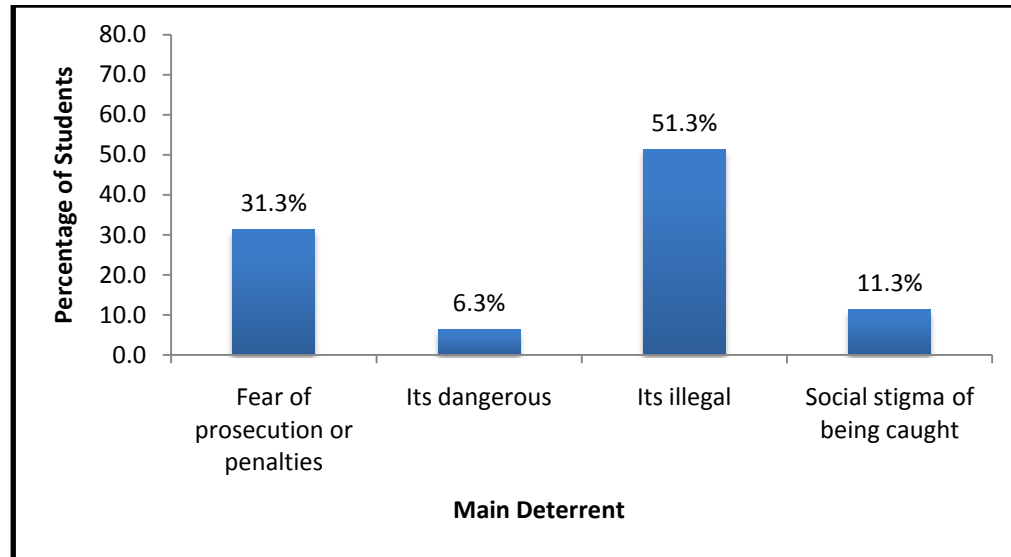
| Driver type            | Breathalysed in the last six months |               | Total         |
|------------------------|-------------------------------------|---------------|---------------|
|                        | No                                  | Yes           |               |
| Full licence           | 31.9%                               | 72.7%         | 37.5%         |
| Specified Full licence | 11.6%                               | 27.3%         | 13.8%         |
| Provisional licence    | 56.5%                               | 0.0%          | 48.8%         |
| <b>Total</b>           | <b>100.0%</b>                       | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.2.7.a:** *Percentage of driver type in relation to being breathalysed in the last six months*

| Chi-Square Tests          |                     |    |                       |
|---------------------------|---------------------|----|-----------------------|
|                           | Value               | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 12.134 <sup>a</sup> | 2  | <b>.002</b>           |

**Table 3.2.7.b:** *Chi Squared Test value for table 3.2.7.a*

The main deterrent for not committing the offence of drinking and driving was looked at among the students surveyed see chart 3.2.7.c , this area was looked as to see if there what areas most deter students for committing the offence of drinking and driving.



**Chart 3.2.7.c:** *The main deterrents for student in relation to drinking and driving*

The main deterrent was also broken into gender to see what the main deterrent is for male and female students surveyed see table 3.2.7.c.

| Gender       | Main deterrent                   |                |               |                               | Total         |
|--------------|----------------------------------|----------------|---------------|-------------------------------|---------------|
|              | Fear of prosecution or penalties | It's dangerous | It's illegal  | Social stigma of being caught |               |
| Female       | 8.0%                             | 0.0%           | 43.9%         | 44.4%                         | 30.0%         |
| Male         | 92.0%                            | 100.0%         | 56.1%         | 55.6%                         | 70.0%         |
| <b>Total</b> | <b>100.0%</b>                    | <b>100.0%</b>  | <b>100.0%</b> | <b>100.0%</b>                 | <b>100.0%</b> |

**Table 3.2.7.c:** *The main deterrents for female and male students surveyed in relation to drinking and driving*

| Chi-Square Tests          |                     |    |                       |
|---------------------------|---------------------|----|-----------------------|
|                           | Value               | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 12.572 <sup>a</sup> | 3  | <b>.006</b>           |

**Table 3.2.7.d:** *Chi Squared Test value for table 3.2.7.c*

There is a relationship between the genders and the main deterrent for not drinking and driving with a Pearson Chi-Square value of 0.006.

The main deterrents for not drinking and driving was broken down into age brackets see table 3.2.7.e

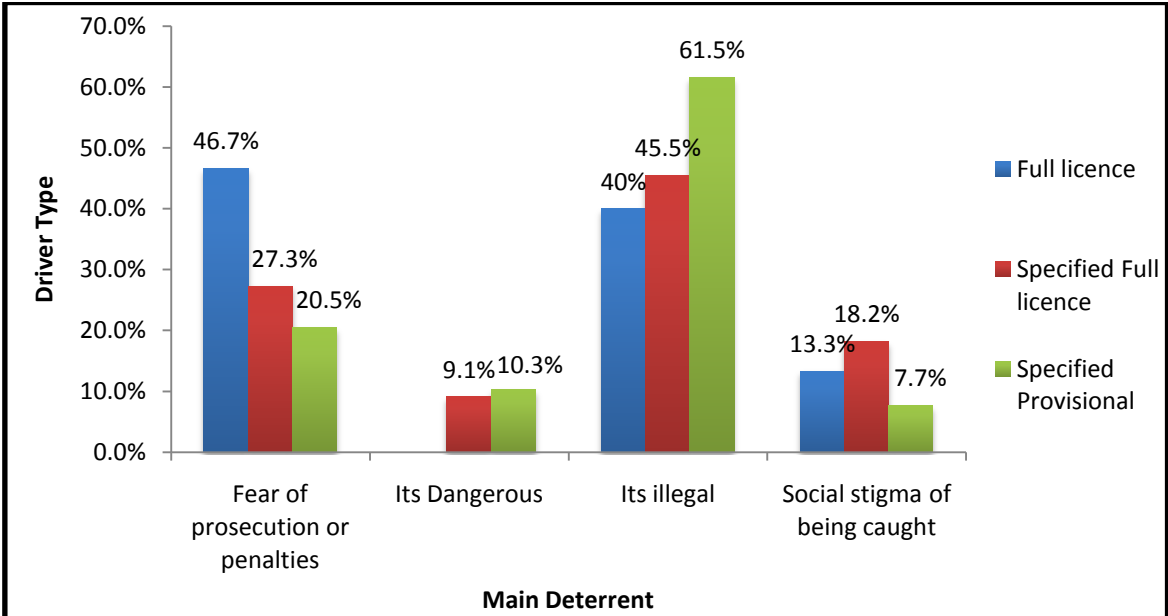
| Age          | Main deterrent                   |                |               |                               | Total         |
|--------------|----------------------------------|----------------|---------------|-------------------------------|---------------|
|              | Fear of prosecution or penalties | It's dangerous | It's illegal  | Social stigma of being caught |               |
| 18-21        | 72.0%                            | 20.0%          | 87.8%         | 55.6%                         | 75.0%         |
| 22-25        | 4.0%                             | 60.0%          | 12.2%         | 22.2%                         | 13.8%         |
| 26-30        | 16.0%                            | 0.0%           | 0.0%          | 0.0%                          | 5.0%          |
| 30+          | 8.0%                             | 20.0%          | 0.0%          | 22.2%                         | 6.2%          |
| <b>Total</b> | <b>100.0%</b>                    | <b>100.0%</b>  | <b>100.0%</b> | <b>100.0%</b>                 | <b>100.0%</b> |

**Table 3.2.7.e:** *The main deterrents for student in different age brackets in relation to drinking and driving*

| Chi-Square Tests          |                     |    |                       |
|---------------------------|---------------------|----|-----------------------|
|                           | Value               | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 30.117 <sup>a</sup> | 9  | <b>.000</b>           |

**Table 3.2.7.f:** *Chi Squared Test value for table 3.2.7.e*

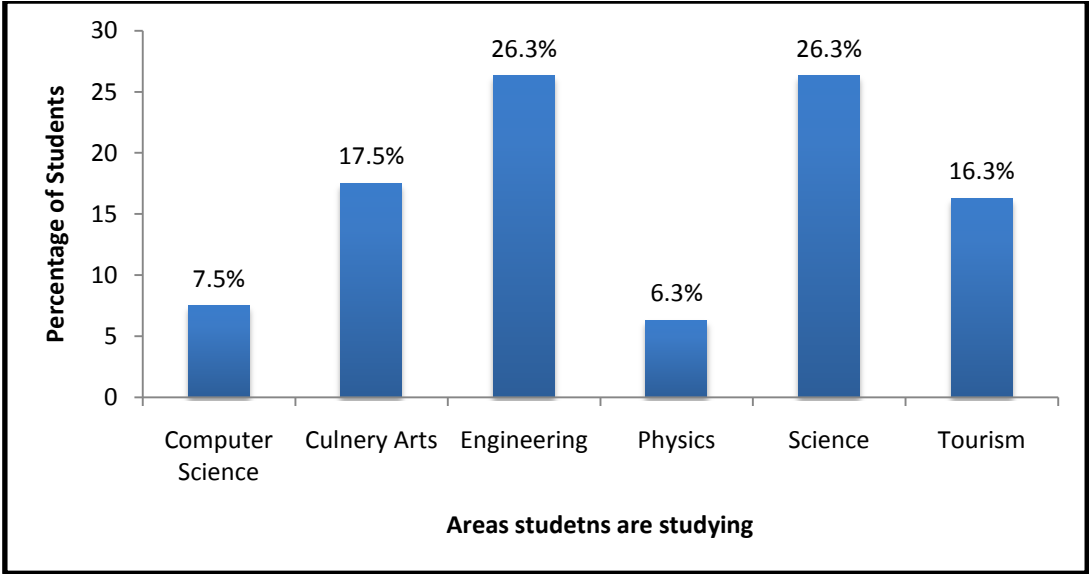
The deterrent can again be looked at for the point of view of driver type with students see chart 3.2.7.d.



**Chart 3.2.7.d:** *The main deterrents for student as different driver types in relation to drinking and driving*

### 3.2.8 Student Participation.

The students where asked what area they are currently studying the two highest areas was that of science and engineering evenly at 26.3%.



**Chart 3.2.8:** *Areas the students surveyed are studying*

The student's studying these areas did show a high interest in the area of drunk driving and discussed the area after filling the survey out. Males took a greater interest in the area than females and took the chance to discuss the topic with the member of An Garda Síochána present at the time of the survey.

### **3.3 Result from Semi-structured Interviews**

The questions asked in the semi-structured interviews linked with the student survey questions with a number overlapping questions such as the general demographics of age, gender, driver type, alcohol consumption and frequency and the main deterrents in relation to drinking and driving.

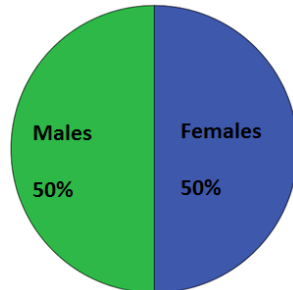
It was explained to the participants that the survey is confidential and that the result will be analysed as a representative sample that all personal details are confidential. The questions as discussed in section 2.3.3 there was a number questions that were asked on a point scale for analysis such as gender, age and driver type and legal limits. There were also open ended questions asked to obtain a more in-depth perception of the areas of knowledge, attitudes and behaviour these were asked from a discussion point of view.

There was an additional area looked at in the semi-structured interviews this was in relation to the media campaign from the RSA regarding the change in limits, this area was approached by showing the participants the RSA television advert on an iPad. The question was asked in two parts, the first part asked directly if the participants recognise the television advert and the second was an open ended question for the purpose of discussion.

There was a total of 14 semi-structured interviews performed as the with the selection process within the age group this was the total number of participating graduates willing to participate in the semi-structured interviews. The age and gender of the participant was analysed against each other due to the small number of participants a statistical relationship may not be obtained due to the p value as requires a larger representative sample as the cell counts need to be less than five.

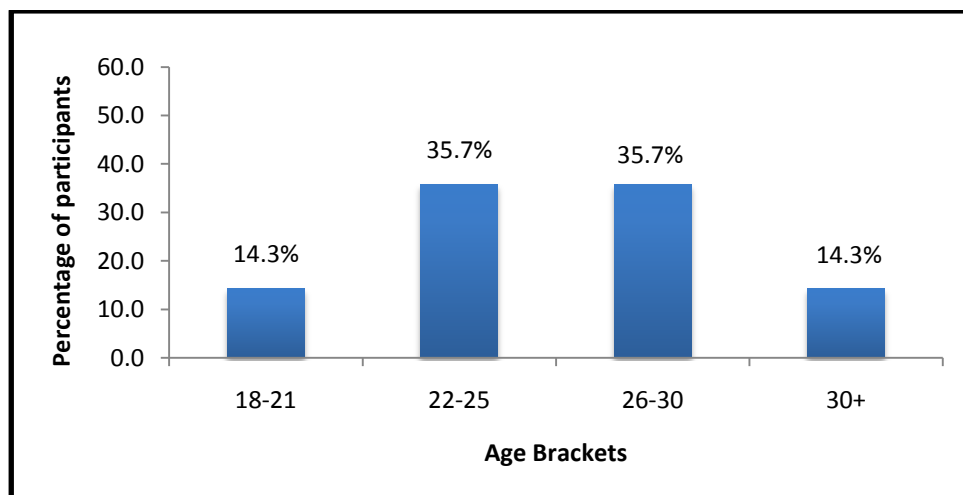
### 3.3.1 Age and Gender

In total there was 14 semi structured interviews performed with 7 male participants and 7 females participants.



**Chart 3.3.1.a:** *Percentage of males and females*

The same age brackets the was used for surveying students was used in the semi structured interviews see chart 3.3.1 b

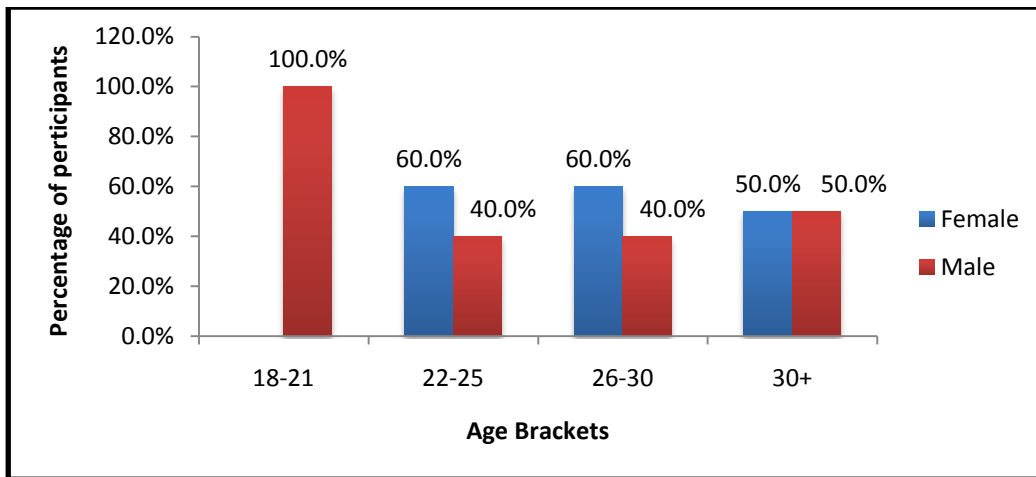


**Chart 3.3.1.b:** *Percentage of ages of the participants interviewed*

The age brackets again were split in an even manor with 37.5% of participants being in the age bracket of 22 – 25 and 26- 30. The remaining two age brackets again were evenly split with 14.3% of participants being in the age brackets of 18-21 and 30+.

The age and gender of the participants was analysed against each other see chart 3.3.1.c.

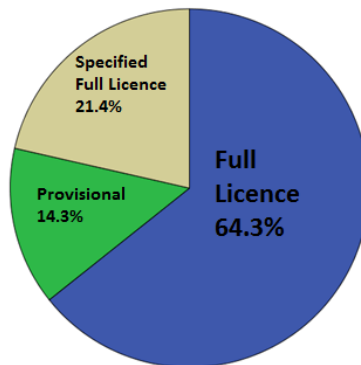




**Chart 3.3.1c:** *Percentage of female and males interviewed in relation to age*

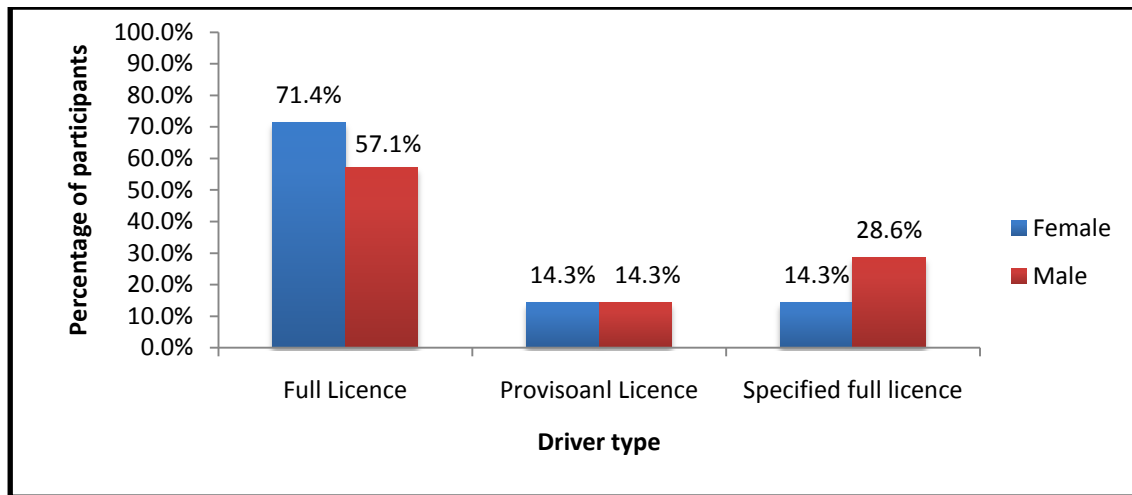
### 3.3.2 Driver type and area driven

The driver type of each participant was looked see chart 3.3.2.a for the percentage of each driver type full licence holder, specified full licence holder and provisional licence holders.

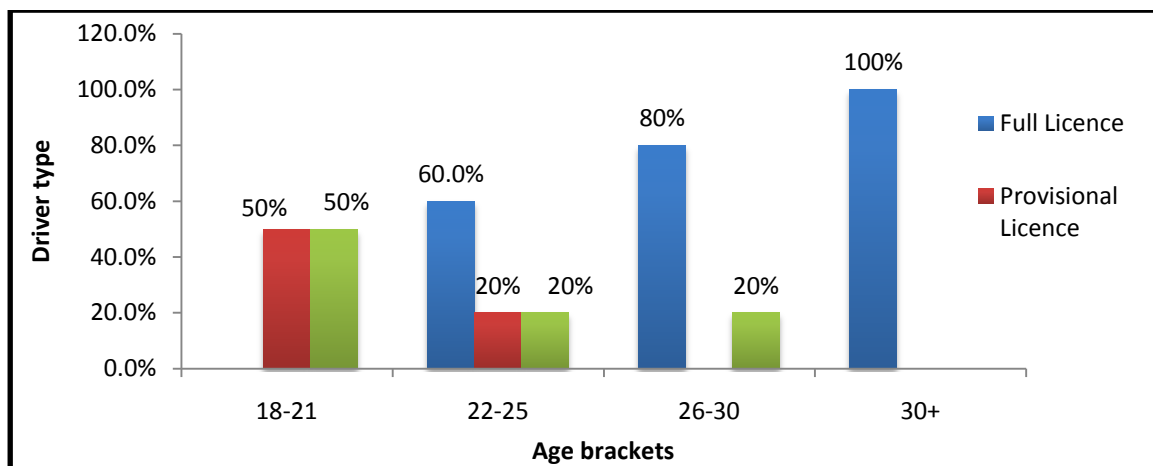


**Chart 3.3.2.a:** *Percentage of driver types interviewed*

Driver type was analysed against the age and gender of the participants that was interviewed. The percentage of driver types in relation to gender see chart 3.3.2.b and what percentage of driver licence is held by the difference age brackets see chart 3.3.2.c.

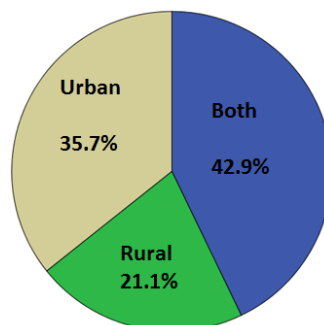


**Chart 3.3.2.b:** *Gender of participants interviewed in relation to driver type*



**Chart 3.3.2.c:** *Percentage of driver types in relation to ages of the participants interviewed*

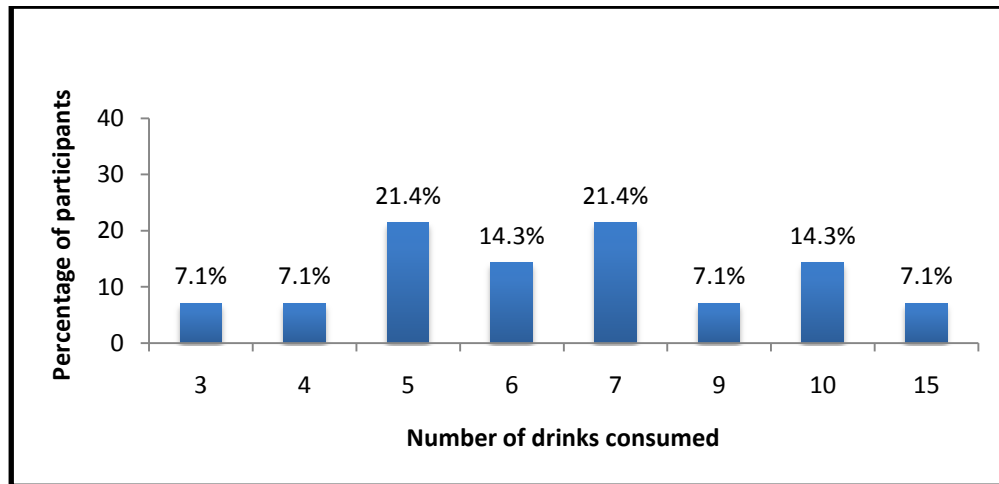
The main area driven by the participants were both rural and urban areas with the participants advising getting to work they drive on urban roads and a number of participants were from outside Dublin advised that they driver on rural roads to get home.



**Chart 3.3.2.d:** *Percentage of areas most driven by the participants interviewed*

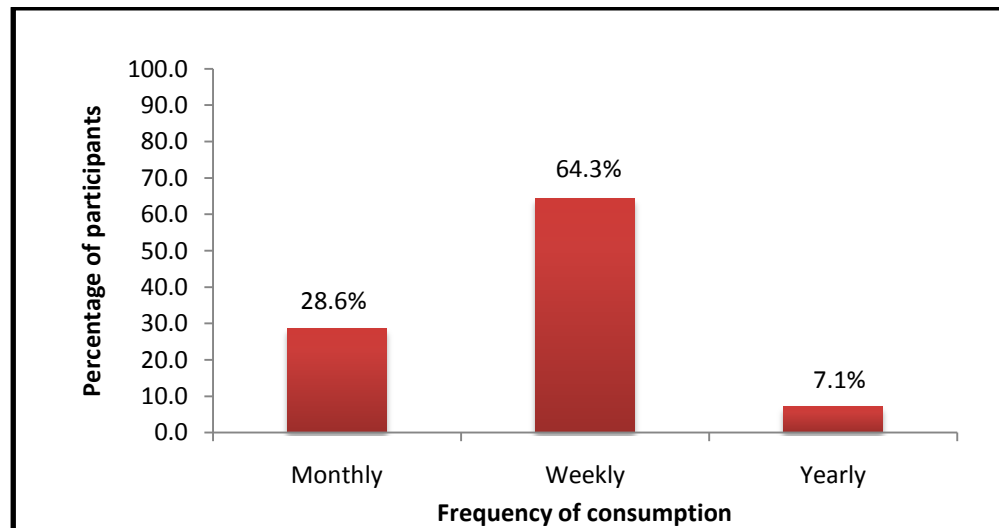
### 3.3.3 Alcohol Consumption

The number of alcoholic drinks consumed on an average night out was left as an open ended question with a range of answer given by the percipients see chart 3.3.3.a



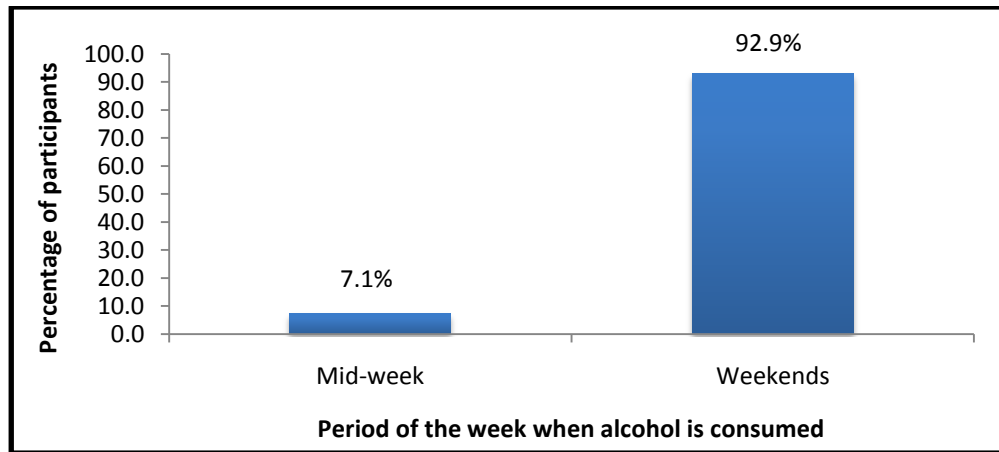
**Chart 3.3.3.a:** *Percentage of drinks consumed by the participants interviewed*

The frequency of consumption will give an indication of binge drinking among the participants as the amount of alcohol consumed on a single night out is at a high level see chart 3.3.3.b.



**Chart 3.3.3.b:** *Frequency of consumption of the participants interviewed*

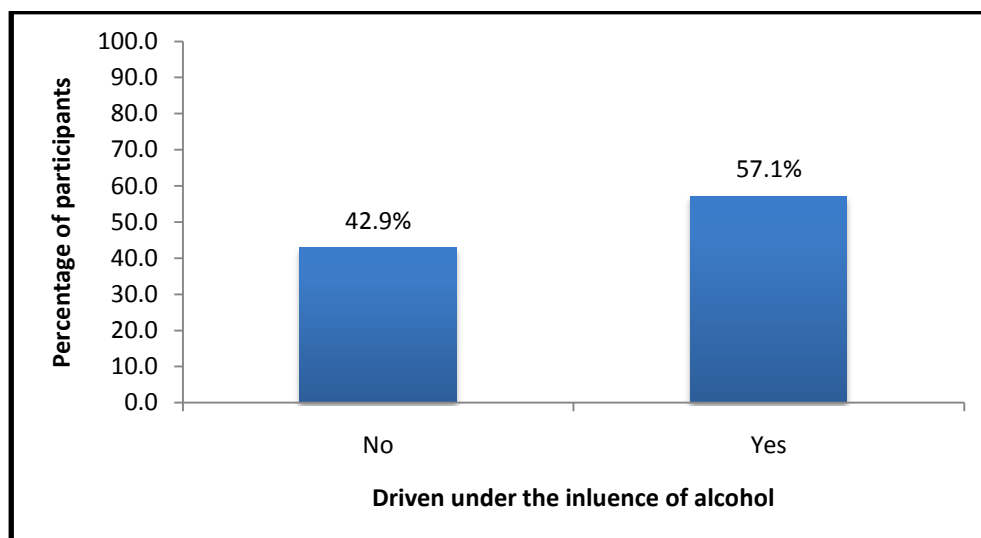
To obtain more information in relation to the periods of time that alcohol is consumed participants were directly asked with two options given Weekends or Mid-week when alcohol is most consumed see chart 3.3.3.c.



**Chart 3.3.3.c:** *Period of time when alcohol is consumed by the participants interviewed*

### 3.3.4 Drinking and Driving

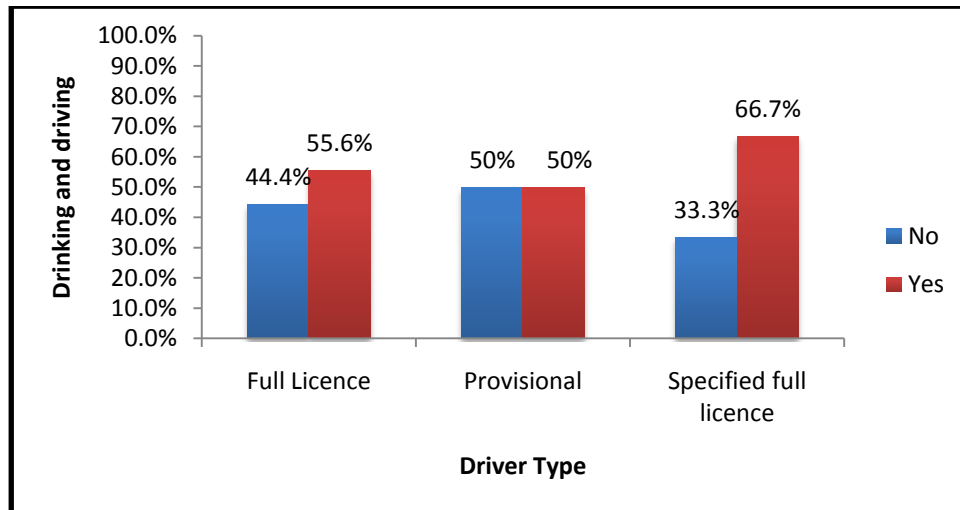
The area of drinking and driving within the interview was directly broached as with that of the student's surveyed. Chart 3.3.4.a shows the percentage of participants who have driven under the influence of alcohol.



**Chart 3.3.4.a:** *Percentage of participants who has driven under the influence of alcohol*

The percentage that admitted to the act of drinking and driving at 57.1% is not that much higher than those who haven't driven under the influence of alcohol at 42.9% showing just over half of the participants have driven under the influence of alcohol.

The driver type and area of drinking and driving was investigated see chart 3.3.4.b.



**Chart 3.3.4.b:** *Percentage of participants who have driven under the influence of alcohol in relation to driver type*

The driver type that has the highest percentage of participants that have driven under the influence is specified full licence drivers with 66.7% admitting to drinking and driving.

The area of gender and drinking and driving was looked at due to the direct relationship observed between the two area in the student survey see table 3.3.4.a

| Have you ever driven under the influence of alcohol | Gender |        | Total  |
|---|--------|--------|--------|
|   | Female | Male   |        |
| No  | 71.4%  | 14.3%  | 42.9%  |
| Yes   | 28.6%  | 85.7%  | 57.1%  |
| Total   | 100.0% | 100.0% | 100.0% |

**Table 3.3.4.a:** *Percentage of male and female participants who has driven under the influence of alcohol.*

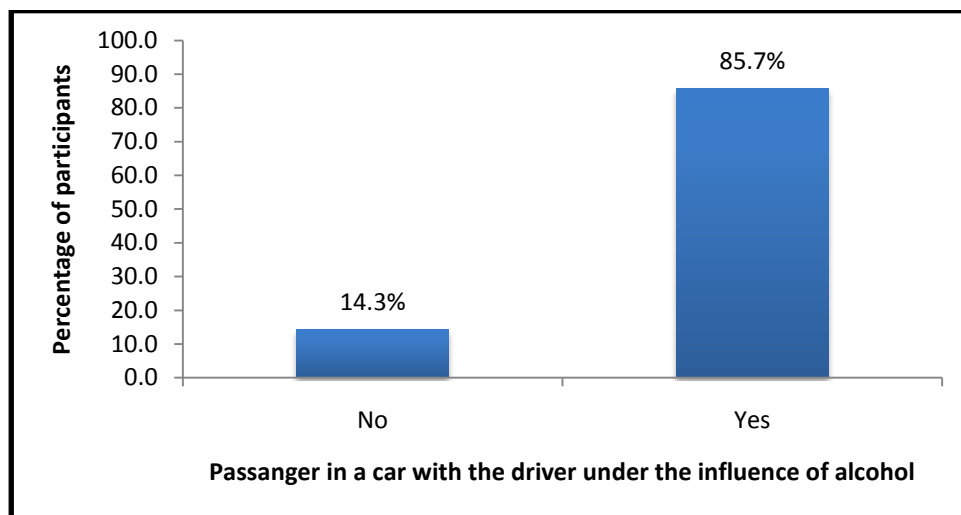
Male participants have highest percentage of drinking and driving. From the participant interviewed 85.7% of males advised that they have driven under the influence of alcohol with only 28.7% of females advising that that they have driven under the influence of alcohol.

| Chi-Square Tests          |                    |    |                       |                      |                      |
|---------------------------|--------------------|----|-----------------------|----------------------|----------------------|
|                           | Value              | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| <b>Pearson Chi-Square</b> | 4.667 <sup>a</sup> | 1  | <b>.031</b>           |                      |                      |

**Table 3.3.4.b:** *Chi Squared Test value for table 3.3.4.a*

There is a direct relationship between the genders and drinking and driving with a Pearson Chi-Square value of 0.031 see table 3.3.4.b.

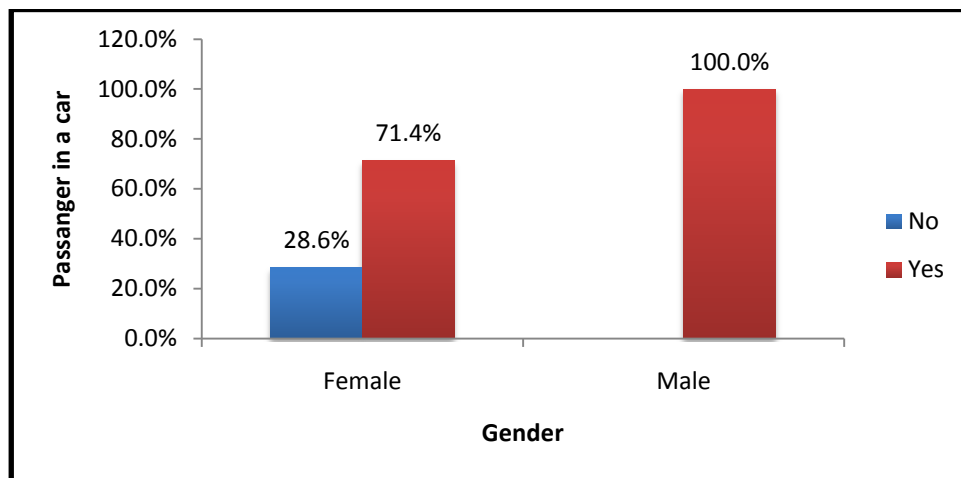
The area of behaviour and attitude was looked at with the question have you been a passenger in a car with a person driving under the influence of alcohol. See chart 3.3.4.c for the percentage of participants who has been a passenger in a car with the driver under the influence of alcohol.



**Chart 3.3.4.c:** *Percentage of participants who has been a passanger in a car with the driver under the influence of alcohol*

85.7% of participants advised that they have been a passenger in a car while the driver was under the influence of alcohol.

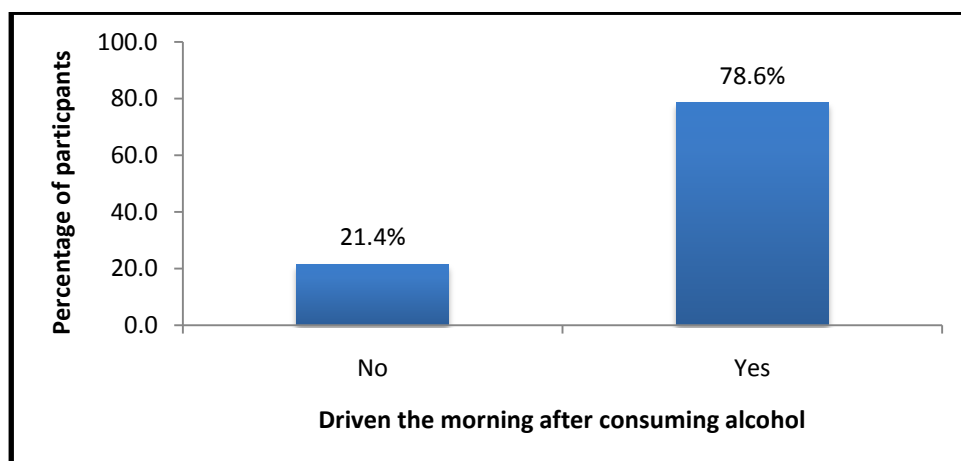
The area of gender and being a passenger in a car was investigated see chart 3.3.4.d



**Chart 3.3.4.d:** *Percentage of participants who has been a passenger in a car while the driver was under the influence of alcohol*

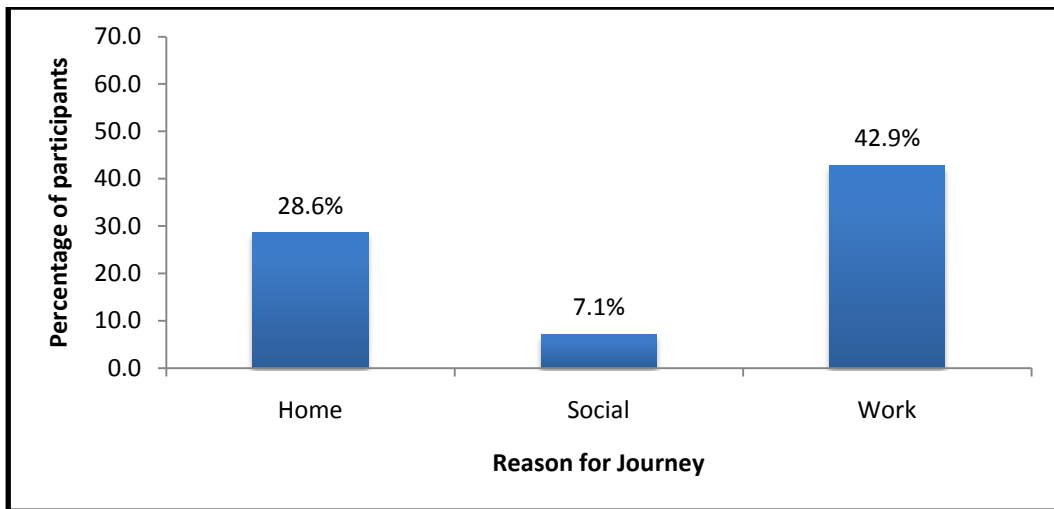
All of the male participants advised that they have been a passenger in a car while the driver was under the influence of alcohol this shows that males put themselves at risk more so then females at 71.4%.

The area of behaviour was looked again in relation to driving the morning after a night of consuming alcohol see chart 3.3.4.e for the percentage of participants who has driven the morning after consuming alcohol.



**Chart 3.3.4.e:** *Percentage of participants who has driven the morning after a night of consuming alcohol.*

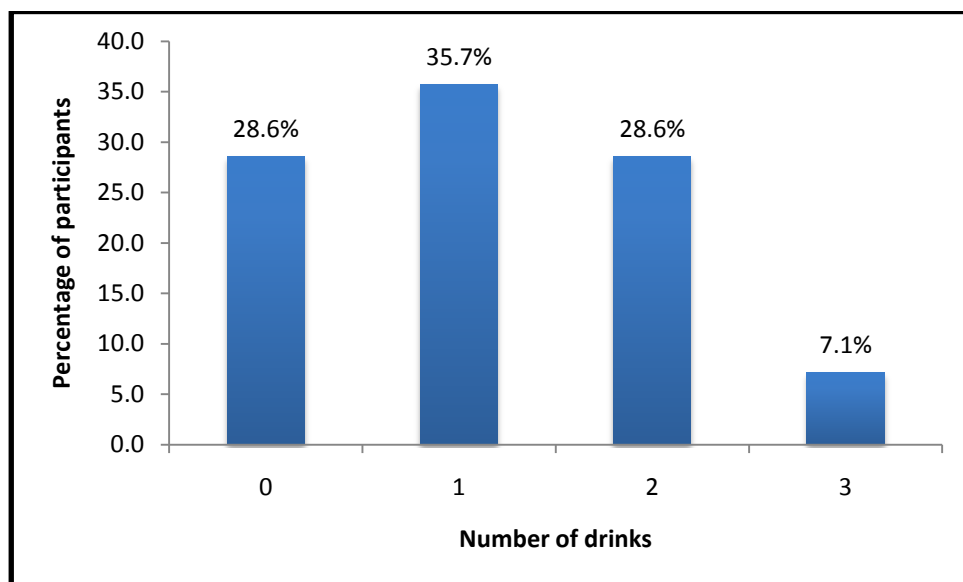
78.6% of participants advised that they have driven the morning after a night of consuming alcohol. The main reason given for driving was to get to work see chart 3.3.4.f.



**Chart 3.3.4.f:** *Reason for the journey after a night of consuming alcohol*

### 3.3.5 Legal limits for drinking and driving

The area knowledge base of the participants of legal limit for drink and driving was asked in the same manner as the student survey giving five options for the participants to choose from for the limits for specified and normal drivers. The area of personal perception of how much can be drunk before reaching the legal limits was also asked. Chart 3.3.5.a shows the participants personal opinions on the number of alcoholic drinks that can be consumed while remaining under what they understand is the legal limit



**Chart 3.3.5.a:** *Personal opinion of alcohol consumption*



This personal opinions was broken into gender to see if males or females think they can drink a high or low amount of alcohol while remaining under the legal limit see table 3.3.5.a

| Personal opinion on how many drink you can consume before being over the legal limit | Gender        |               | Total         |
|--|---------------|---------------|---------------|
|  | Female        | Male          |               |
| 0  | 42.9%         | 14.3%         | 28.6%         |
| 1  | 57.1%         | 14.3%         | 35.7%         |
| 2  | 0.0%          | 57.1%         | 28.6%         |
| 3  | 0.0%          | 14.3%         | 7.1%          |
| <b>Total</b>   | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

**Table 3.3.5.a:** *Gender in relation to the personal perception of amount of alcohol that can be consumed while remaining under the legal limit.*

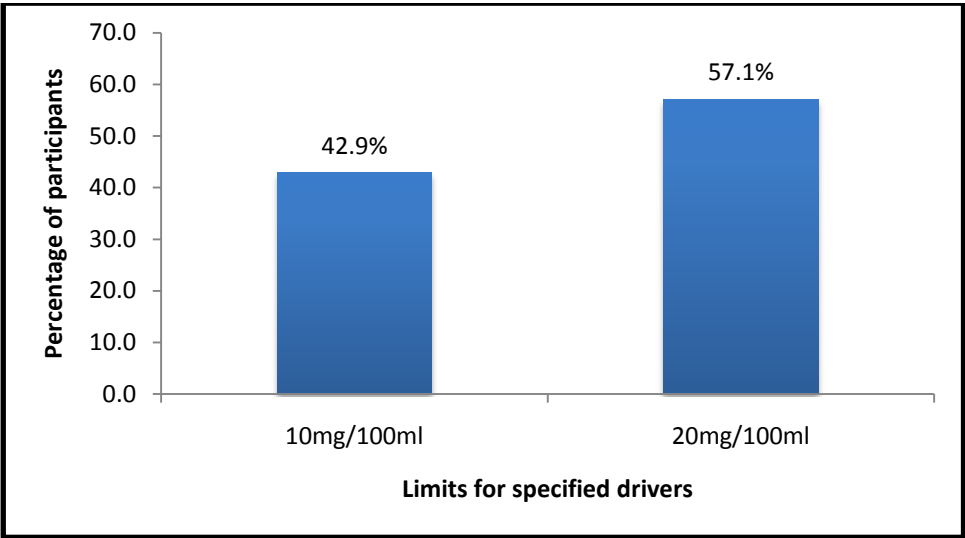
57.1% of the male participants advised that they can consume 3 drinks while remaining under the legal limit with females with the same percentage advising that the can consume only one drink.

| Chi-Square Tests          |                    |    |                       |
|---------------------------|--------------------|----|-----------------------|
|                           | Value              | df | Asymp. Sig. (2-sided) |
| <b>Pearson Chi-Square</b> | 7.800 <sup>a</sup> | 3  | <b>.050</b>           |

**Table 3.3.5.b:** *Chi Squared Test value for table 3.3.5.a*

There is a relationship between gender and the option of how much alcohol can be consumed while remaining under the legal limits with a Pearson Chi-Square value of 0.050.

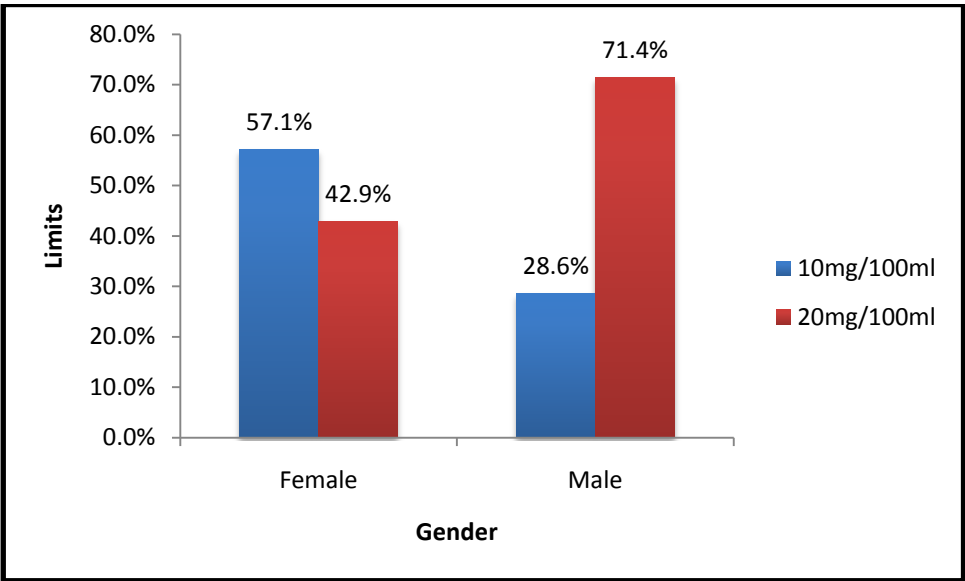
The options for the limit for a specified driver that was given to the students surveyed was also given to the participants in the interviews see chart 3.3.5.b.



**Chart 3.3.5.b:** *Limits for specified drivers advised by participants interviewed*

There were only two options selected for the limit for specified drivers this was 10mg/100ml and 20mg/100ml. 57.1% of participants knew the correct limit for that of a specified driver while 42.9% underestimated the limit.

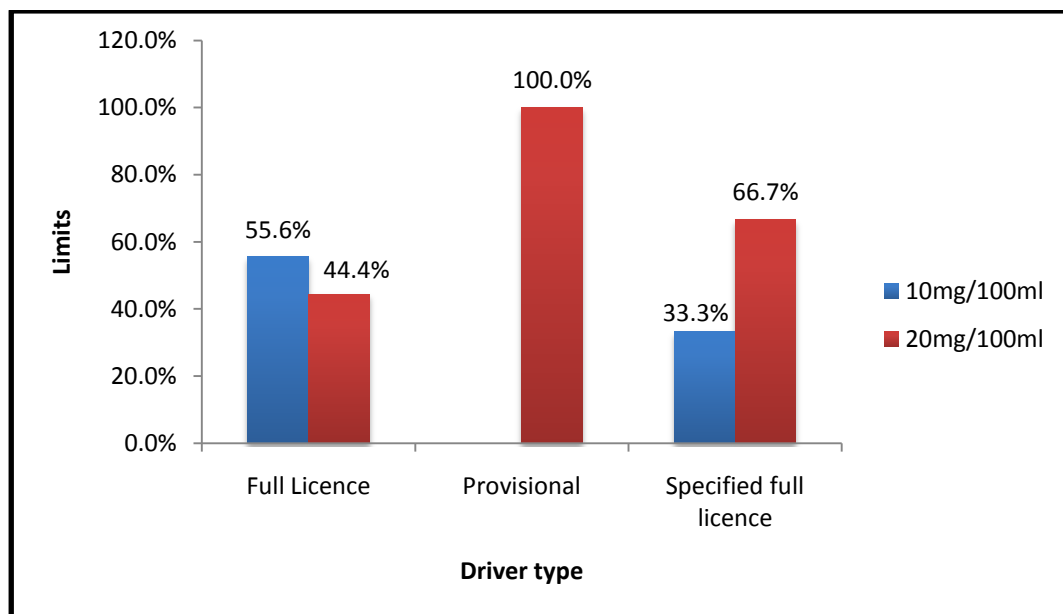
The limit for a specified driver that was selected was looked at against gender see chart 3.3.5.c.



**Chart 3.3.5.c:** *Gender of participants in relation to advised limits for specified drivers*

57.1% of female's advised that the limit for specified drivers is 10mg/100ml underestimating the legal limit. The male participants showed a greater knowledge of the limit with 71.4% of males advising that the legal is 20mg/100ml.

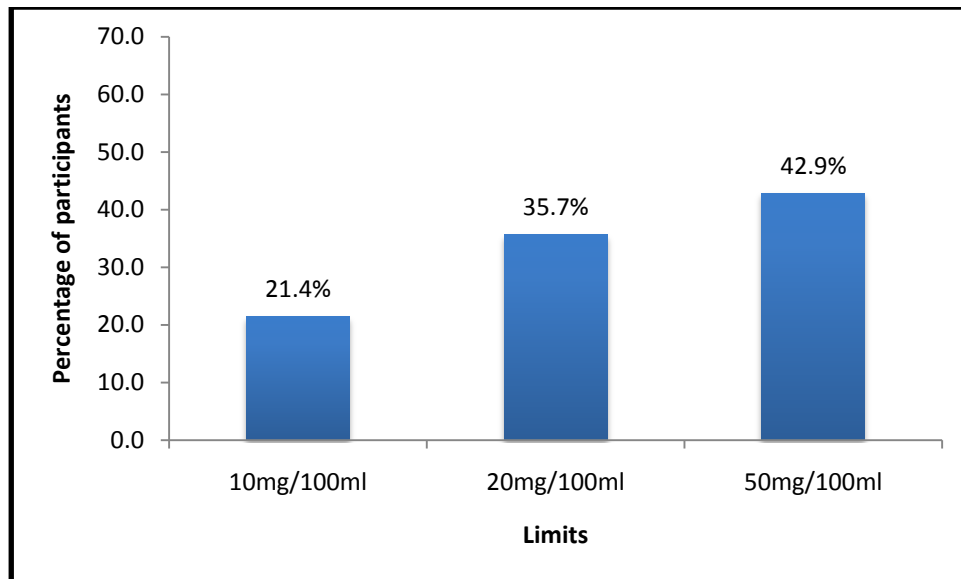
The area of driver type and legal limits was investigated to see if the driver type knows the legal limit for that applies to them under the law see chart 3.3.5.d. for the limits chosen for specified drivers.



**Chart 3.3.5.d:** *Driver type in relation to the limits chosen by participants interviewed for specified drivers*

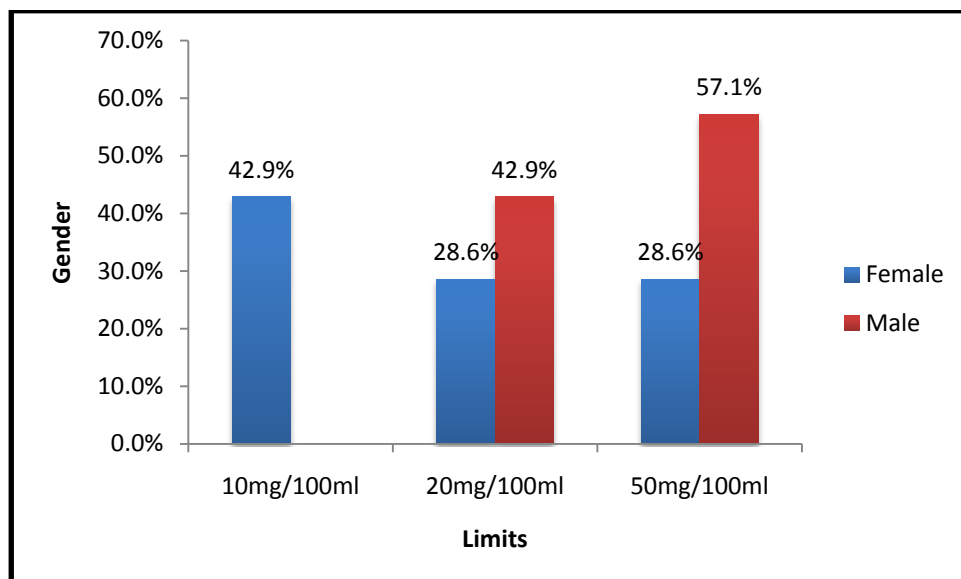
The participants who hold a provisional drivers licence knew the limit of 20mg/100ml that directly applies to them under the law. While 66.7% of specified full licence drivers knew the correct limit of 20mg/100ml that also directly applied to them. 54.6% of full licence drivers underestimated the legal limit for specified drivers by choosing the limit of 10mg/100ml.

In relation to the limit for a normal driver the limit options given was the same given to the student surveyed see chart 3.3.5.e for percentages chosen as legal limit for a normal driver.



**Chart 3.3.5.e:** *Limits chosen by participants for normal driver*

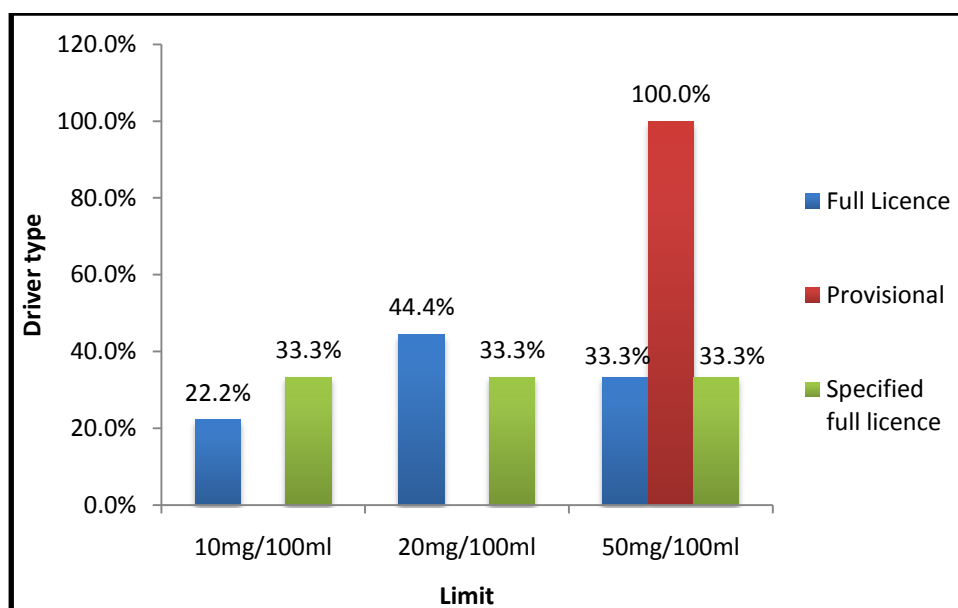
The limit for normal driver was also investigated against gender see chart 3.3.5.f



**Chart 3.3.5.f:** *Limits chosen by participants for normal drivers in relation to gender*

42.9% of participants advised that the legal limit for a normal driver is 10mg/100ml see chart 3.3.5.e. 42.9% of males and 28.6% of females advised that the legal limit for a normal driver is the same as that of the specified driver 20mg/100ml. The highest percentage at 57.1% of males knew the correct limit for a normal driver of 50mg\100ml.

The area of driver type and knowledge of the legal limits was investigated see chart 3.3.5.g



**Chart 3.3.5.g:** *Driver type in relation to the limits chosen by participants interviewed for normal drivers*

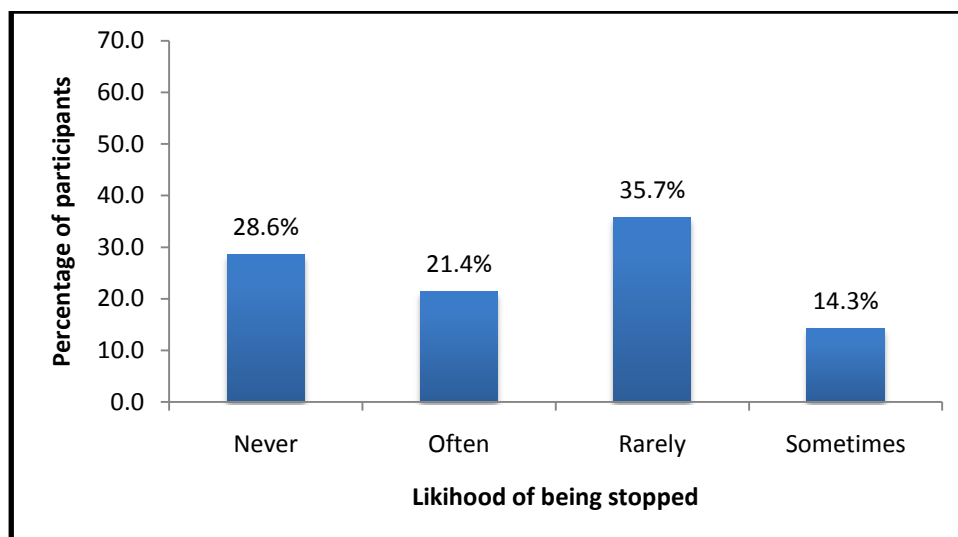
Full licence drivers had an even split across three limits opted for with 33.3% of each advising the limit for a normal driver is 10mg/100ml , 20mg/100ml and 50mg/100ml. Participants holding a provisional licence knew the correct limit for full licence drivers see chart 3.3.5.g.

The additional question in relation to the personal opinion of how much alcohol should driver be allow to consume before driving was asked in the semi-structured interviews with 100% of participants advised no alcohol should be consumed.

### 3.3.6 Enforcement and main deterrents

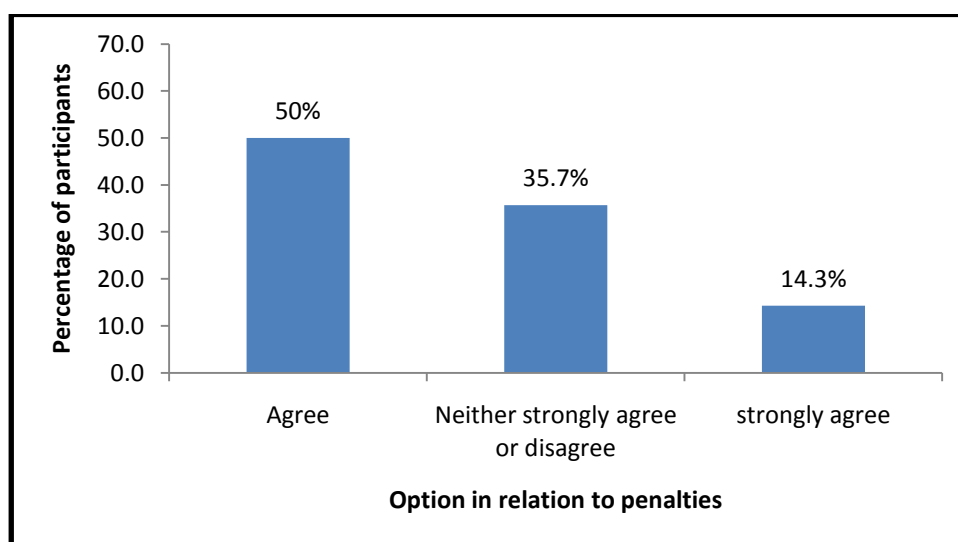
The area of enforcement and the main deterrent was included in the semi-structured interviews with questions in the area of likelihood of being breathalysed by An Garda Síochána, the main deterrents from not drinking and driving and also the experience of enforcement

Chart 3.3.6.a shows the participant's opinions in relation to the likelihood of being stopped by An Garda Síochána and breathalysed.



**Chart 3.3.6.a:** *Participants opinion on the likelihood of being stopped by An Garda Síochána*

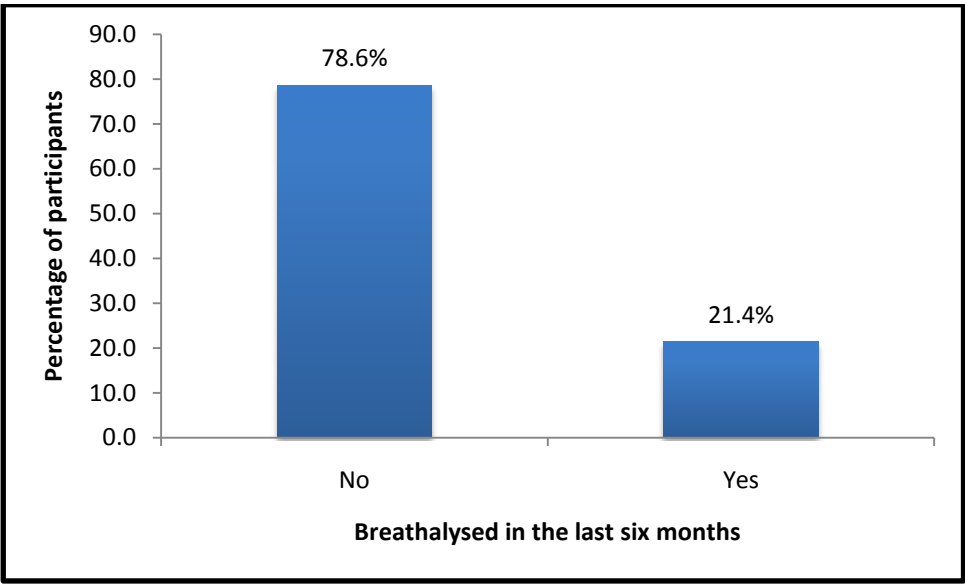
The question was asked in relation to attitude towards penalties was do you agree with the following statement Penalties for drunk-driving should be much more sever with a five point options given strongly agree, agree, neither strongly nor disagree, disagree and strongly disagree see chart 3.3.6.b for the options chosen.



**Chart 3.3.6.b:** *Options in relation to penalties for drinking and driving*

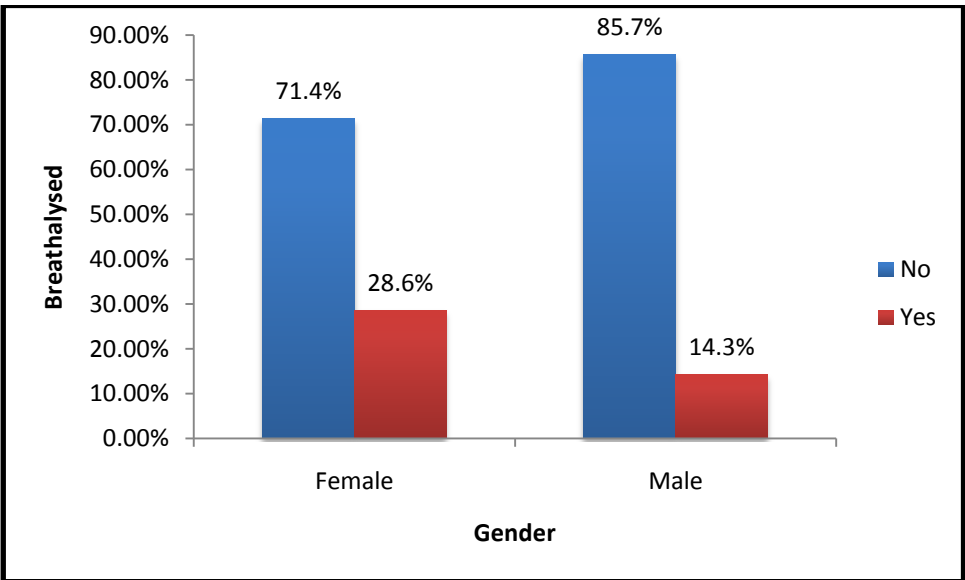
50% of participants agreed that penalties should be stronger for the offence of drinking and driving while 14.3% strongly agreed. 35.7% did not have a strong opinion in the area.

The experience of enforcement was also asked of the participants with the question have you been breathalysed in the last six months see chart 3.3.6.c



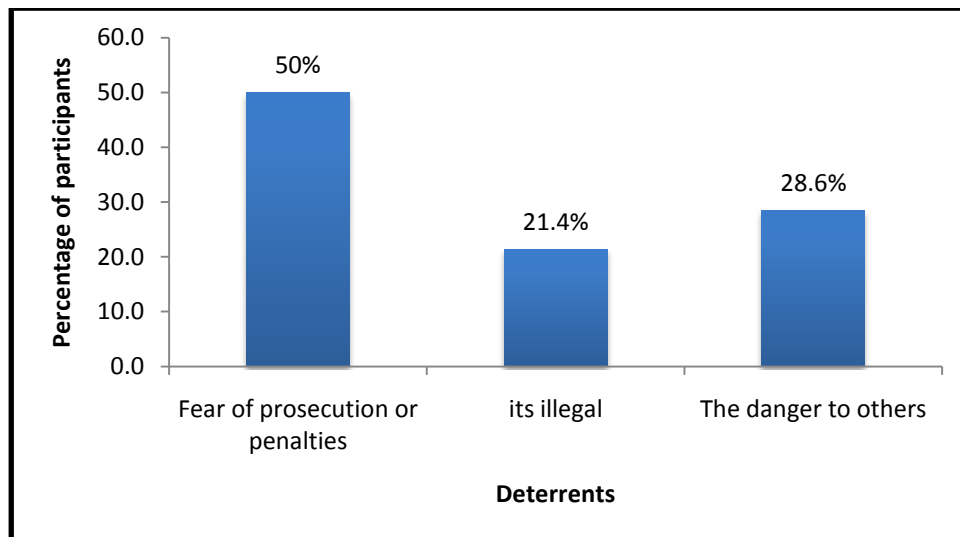
**Chart 3.3.6.c:** *Participants who have been breathalysed in the last six months*

The area of being breathalysed was analysed against gender to investigate to see which gender has been breathalysed the most in the last six months see chart 3.3.6.d



**Chart3.3.6.d:** *Gender in relation to being breathalysed in the last six months*

The option for the main deterrents in relation to drinking and driving given to the participants in the semi-structured interviews was the same options given to the students surveyed with only a change in the area of danger with breaking this into the danger to yourself and the danger to others see chart 3.3.6.e



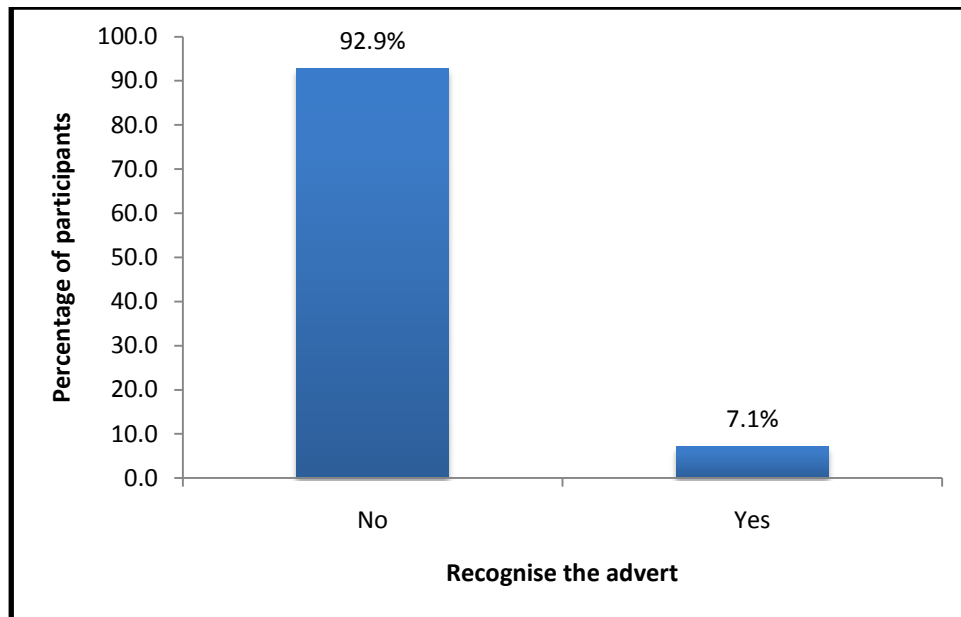
**Chart 3.3.6.e:** *Main deterrents chosen by participants interviewed*

The highest deterrent is the fear of prosecution and penalties at 50% of participants advising this was their main deterrent with the danger to others at 28.6% then the fact that it is illegal at 21.4%

### **3.3.7 Road Safety Authority Media Champaign**

The road safety authority television advert as illustrated in section 1.6 was shown to the participants without advising what the advert was about before showing the advert. The question asked after to participant viewing the advert was firstly did they recognise the advert. See chart 3.3.7. a. for the percentage of participants who recognised the advert.

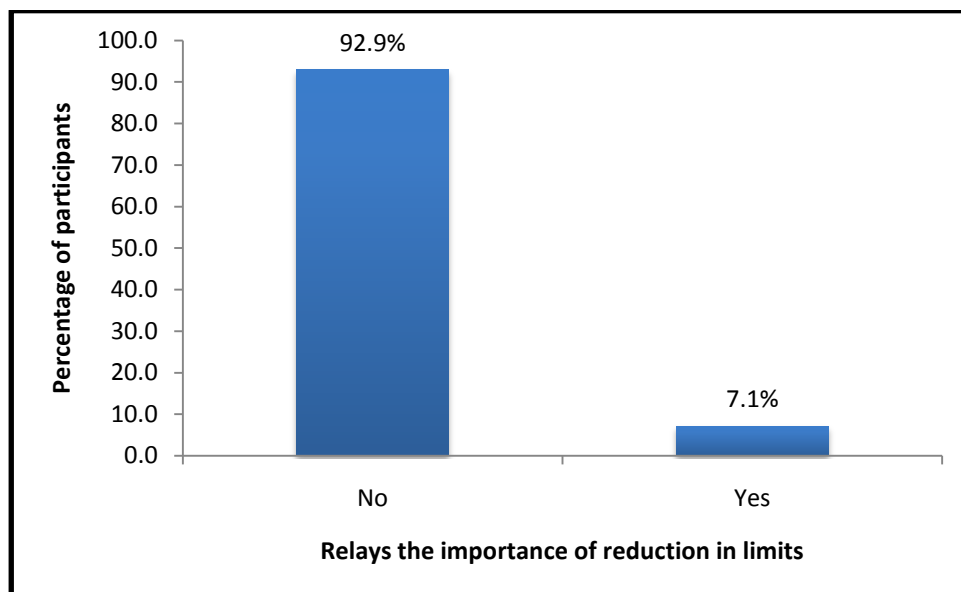




**Chart 3.3.7.a:** *Participants who did and did not recognise the RSA television advert*

92.9% of participants did not recognise the advert as the RSA advert for the reduction in drink and driving limits

The second section to the question was an open ended question to the participant asking if the television advert relays the importance of the reduction in the legal limits down to 20mg/100ml for specified drivers and 50mg/100ml normal drivers from a general limit 80mg/100ml see chart 3.3.7.b



**Chart 3.3.7.b:** *Participants opinions in relation to the advert relaying the importance of the reduction of the limits*

## **Chapter 4 – Disucssion**

## **4.1 Mandatory Alcohol Testing Checkpoints**

The observations made at two separate Mandatory Alcohol Testing (MAT) checkpoints were analysed using SPSS and the results from each MAT checkpoint are detailed in section 3.1.1 and section 3.1.2.

### **4.1.1 MAT Checkpoint one commencing at 7.30pm**

Gender and age brackets were the first sections analysed from the observed results taken at the MAT checkpoints. As the selection of cars was stopped at random depending on the drivers that passed the MAT checkpoint area there is no direct correlation with age and gender. However from observations made the Gardaí performing the selection of drivers to be stopped and breathalysed showed an indication of stopping the younger age bracket, which is the highest percentage of drivers tested at this checkpoint at 37.2% of drivers being in the age bracket of 17 to 29 years old.

The next area that was looked at was the area of driver type stopped so either specified drivers who holds a provisional drivers licence or holds a full drivers licence under a two year period or a normal driver holding a full licence over two years. The Gardaí performing the breath tests requested the driver's driving license, the purpose of this is to ensure that the driver is being tested at the correct limit; if a driver's licence is not produced the driver is advised that they will be tested at the lower limit under the law.

There was a number of drivers who did not produce a licence when requested therefore was tested under the lower limit, the percentage that did not produce a licence were recorded as a specified drivers. There was a total of 48.8% of the drivers stopped came under the area of specified driver and was tested under the lower limit with 52.% being test at the higher limit as a normal driver.

Driver type and gender was then analysis to see if there was a relationship present between the two areas so what type of licences held by the male and female drivers that were stopped. From the results there is a relationship between gender and driver type, with female drivers representing a higher percentage of drivers holding a full drivers license of

longer than two year period, see table 3.1.1.3.a and table 3.1.1.3.b. in section 3.1.1. The total number of female drivers tested 79.9% provided a full license upon request by the Gardaí conducting breath test. The Pearson Chi-Square value at 0.026 indicates the relationship present between gender and driver type.

There were a greater number of males tested than females however for this higher percentage of males only 40% produced a full driver's licence for longer than two year period to be tested at the higher limit. The higher level of males tested as specified drivers were contributed to the number of taxi drivers that were tested.

The general observations made throughout the 30 minute checkpoint included a number of positive comments from drivers advising that it is reassuring to see that the MAT checkpoints are being performed on such a high risk weekend. These comments were made mainly by the older age bracket from 45 years of age and up. The younger age group 17 to 29 came across more nervous in relation to being stopped by An Garda Síochána and kept communication with the Gardaí performing the testing to a minimum.

#### **4.1.2 MAT Checkpoint two commencing at 8.30pm**

There was an additional number of Gardaí present at this check point to facilitate a greater number of tests, the checkpoint also ran for a total of 45 minutes the result recorded in section 3.1.2. As with the first set of result from checkpoint one the first area that was analysed was the area of gender and age. At this checkpoint 60% of drivers that were stopped were male drivers and 40% were female drivers see chart 3.1.2.1.a.

The selection process again was random selection however there was a higher number of drivers observed at this checkpoint as there was a higher volume of traffic observed in the area of the checkpoint. The ages of drivers were again broken into age brackets in the same method as the used at the checkpoint one. See table 3.1.2.1.a for the breakdown of ages and genders of drivers stopped and tested. There were a higher number of drivers in the 45 to 54 year old bracket, compared to the checkpoint one where there was a higher number of 17-29 year olds tested.

In comparing observations regarding the selection of certain vehicles from checkpoint one to checkpoint two the selection method was not as focused on driver's gender or age on checkpoint two. Rather the selection was on vehicles who tried to change from the outbound lane to avoid the MAT checkpoint as at checkpoint two the vehicles trying to change direction was much more visible than at checkpoint one. There were still a greater number of males stopped than females at this checkpoint as with checkpoint one.

Driver type was then analysed from the observations made at checkpoint two, there was a total of 55.7% of drivers tested at this checkpoint being tested at the higher limit as normal driver. This was an increase of drivers tested as a normal driver from 51.2% on checkpoint one. In contrast at this checkpoint there was also a reduction in the number of specified driver tested at 44.3% from 48.7% from checkpoint one. This reduction in the number of specified drivers may be due to the reduction of professional drivers tested as the area that the checkpoint was set up was mostly residential compared the first checkpoint attended.

Driver type and age bracket was analysed in the same way as with the result from checkpoint one the result show that there is also a correlation between the driver type and age bracket. The highest percentage of specified drivers that was tested was in the age bracket of 17-29 at 51.6 %. In comparison the highest number of normal or experienced drivers was in the age bracket of 45-54 at 51.3%. This does show that there are a higher number of specified drivers in the high risk age bracket of 17-29 males, as male drivers in this age bracket represented 47.6% of specified drivers tested of the drivers tested at this level. See table 3.1.2.4.a for the overall driver type in relation to age bracket.

The overall attitude of the drivers was responsive to the requests of the Gardaí upon approach by co- operating with Gardaí while being tested. The trend showing the older age brackets from 30 up being more relaxed with the Gardaí than the younger age bracket as with checkpoint one. At this checkpoint it was also observed that there was a number of cars driven by males in the age bracket 17- 29 that would be known as performance cars where that is a visible expensive additions made to the car, these males did show a certain amount of irritation by being stopped

#### **4.1.3 Overall Observations**

There were a number of observations made in relation to attitude and behaviours of drivers as well as gender, age and driver type. The results in section 3.1.1 and section 3.1.2 show that there was a variety of drivers stopped and tested at Mandatory Alcohol Testing checkpoints. There was a higher percentage of male drivers 70% at checkpoint one and 60% percentage stopped for testing then female drivers. The selection process is at random in relation to the cars that are selected for testing, there is no correlation in relation to the number of drivers that were stopped and gender.

The most significant factor was in the area of specified drivers and ages with a chi squared value of 0.020 a value less than 0.05 indicated an association between the driver age bracket and driver type at checkpoint two. This relationship that is most represented at checkpoint two then at checkpoint one as there was no recorded professional drivers tested at checkpoint two.

The highest percent of specified drivers is in the younger age bracket of 17 to 29 males at 51.6%. This leads to a high risk factor as this age group is within the highest risk users on Irish roads and with the additional lack of experience leads to a higher chance of a traffic collision if driving under the influence of alcohol.

Members of An Garda Síochána were very relaxed in dealing with the drivers stopped there was no animosity between the drivers and the Gardaí. There was a nervous tension from young drivers in being stopped across the two checkpoints. There was one single observed attitude of hostility with a male driver in the lower age bracket of the 17-29. The driver acted hostile toward the Gardaí performing the test from the offset. This was dealt with by the Gardaí by advising of the penalties if caught driving under the influence of alcohol and the deaths that can be caused directly in relation to drink driving.

Overall there was an acceptance from the drivers to be stopped by An Garda Síochána in relation to the MAT checkpoints and a high level of cooperation between the drivers and the An Garda Síochána was observed. Drivers relayed to Gardaí that they would rather them be performing MAT checkpoints than have drink drivers on the roads.

Attending the checkpoints in an observational role gave an indication that the area of enforcement is being supported in general by the road users in Ireland. On both checkpoints there was a 100% pass rate at all levels of testing of the 43 drivers observed at checkpoint one and 70 drivers observed at checkpoint two. This shows a positive result in relation to drink driving taking into account the high risk factor in relation to drinking on a holiday weekend, especially with persons drinking after work. From observing the MAT checkpoints there was an overall positive acceptance by drivers to be stopped and breathalysed.

## **4.2 Student survey**

The student survey was performed on two separate dates at two separated Dublin Institute of Technology campus locations. The first was on the 26<sup>th</sup> of March 2012 this was the first day of D.I.T RAG Week where activities involving drinking are attended by students to raise money for charity therefore this week was chosen due to the high level of alcohol consumption by students. The first student survey was performed at the entrance to Dublin Institute of Technology Marlborough Street within the Cathal Brugha Street campus. The second survey was performed at the Kevin Street campus at the entrance to the canteen where there is a high flow of students. This survey was performed on the 29<sup>th</sup> of March 2012 the morning after the DIT day at the races RAG event.

A member of An Garda Síochána was present while the surveys were being performed. With a member of An Garda Síochána present for the duration of the survey, students who took an interest in the area took the chance to speak directly to the member of An Garda Síochána and discuss the area in detail in doing so educating themselves in the area. Students did take an overall interest in the area after filling out the survey with keen interest in the new limits that were introduced in October 2011.

With experience of being a student, students are mainly interested in areas that affect them directly therefore in approaching the issue of student participation the students were offered the chance to do a breathalyser test on completion of the survey. By offering an interactive aspect to the survey this attracted students that did not have an interest in the area

to complete the survey. Once the students attention was obtained the topic of drinking and driving was discussed and the purpose of the study was explained. The one page survey was presented with an attached consent form and it was explained to the students that the survey will be kept confidential. The full results from the student survey are under section 3.2.

#### **4.2.1 Age and Gender**

The general demographic of age and gender was asked this was to obtain and analysis any links between the ages and gender in relation to the areas of knowledge, behaviour or attitudes towards drink driving with the full results recorded in section 3.2.1. The only control point in relation to the selection process was that students were the only group to be invited to complete the survey. The process of selecting the students was random selection with the students passing by the area that the survey was being performed; therefore there was no connection between the gender and the age group of the students.

Of the students surveyed 30% were female and 70% were male. The highest represented age bracket of students surveyed was 18-21 year olds at 75% followed by 13.8% of 22-25 year olds then 6.2 % and students over the age of 30 and finally 5% of 26-30 year old students.

#### **4.2.2 Driver Type**

The area of driver type was broken into three sections full licence holders and from the students surveyed 37.5% of the students held a full licence. 48.7% of students held a provisional licence and 13.8% of students held a full licence under a two year period both of these drivers type are classed as specified drivers see Chart 3.2.2.a .Of the students surveyed 62.5% would be tested under the lower limit under the Road Traffic Act 2010.

The selection process was at random and dependent on the students present in the area at the time of the survey being performed. There was a higher percentage of males surveyed this is reflected in the results in relation to driver type. 90.9% of specified drivers who hold a full licence for less than two years are males this is a much higher percentage than



female at 9.1%. However specified drivers holding a provisional license is at a lower percentage again with males at 61.5% with females just over half of this at 38.5%. Males holding a full licence are greater than females at 73.3% compared to 26.7% which is a contrast to the observations made at the Mandatory Alcohol Testing checkpoints, where females hold the higher percentage of full driver licences.

The highest risk group in relation to being involved in a traffic collision are males from the age of 17 to 25. Therefore the link between the age and driver type was looked at as the level of driver type is an indication of the level of experience that a person holds on the road and also the limit at which they would be tested for the offence of drunk driving. There is a trend between the ages of the student survey and the type of driver's licence that is held. The highest percentage of students surveyed was in the 18 to 21 age bracket with males making up 65% of this age bracket as seen in table 3.2.2.a. The highest percentage of specified driver both provisional and full licence holders under two year was 55% and 16.7% was in this age bracket of 18-21.

The percentage of specified driver's decreased as the age brackets increase however there was a lower percentage of the higher age brackets surveyed. There were a low percentage of full licence holders at the age bracket of 18-21 years which was also observed at the MAT checkpoints.

#### **4.2.3 Alcohol Consumption**

As discussed in section 1.3 there is a trend of binge drinking within Ireland with males being showing the greatest trend toward binge drinking. The level of alcohol consumption was looked at among the students surveyed as the level of alcohol consumed over a period of time will affect the driver's BAC as discussed in section 1.4. The highest risk times of traffic collisions is at the weekend therefore the link with binge drinking and students was looked at as weekend is a time of leisure in relation students not having to attend lectures.

Chart 3.2.4.a shows the average number of alcoholic drinks consumed on a night out. The highest percentage was on average 5 to 9 drinks consumed on a night out at 43.8% followed by 10 to 14 drinks at 21.3%. At the highest percentage of 43.8% of 5 to 9 drinks

consumed on a night out with the rate of excretion of alcohol from the human body of one hour for one standard drink the highest percentage of student would be drink over a 5 to 9 hour period for responsible drinking. 21.3% of students consuming 10 to 14 would be dinking over a 10 to 14 hour period on an average night out. This drink period is unrealistic for an average night out for majorly of student body indicating a trend of binge drinking.

The relationship between female and male students drinking habits was also looked at as the highest risk group are males between the ages of 18 to 25 reporting the higher number of binge drinking in Ireland. The trend of males drinking at a higher level of alcohol on an average night out is still present with 14.3% of males drinking over 15 drinks on an average night out. However of the female students surveyed 50% advised on average 5 to 9 drink are consumed this is compared to 41.1% of males consuming the same amount. There was only a low percentage of male's that was surveyed advising that they do not consume alcohol at all. There is a trend showing that female students are consuming high amounts of alcohol reporting that on an average night out with 20.4% advising that they consume 10 to 14 drinks with males only at 21.4%. Male students do consume a higher percentage of drinks on a night out however female students show a trend of catching up in the area of alcohol consumption.

The age bracket of 18 – 21 consumed a high percentage of alcohol on an average night out with 46.7% advising they consume on average 5 to 9 drinks with the next highest percentage being a reduction in the amount of alcohol consumed at 23.3% of 1 to 4 drinks. The higher consumption of alcohol of more than 15 drinks on an average night out was in the age bracket of 22-25 at 18.2% with 27.3% of this age bracket advising that they consume 10 to 14 drinks on an average night out.

The trend of binge drinking is in relation to the time of consumption and how much is consumed during this time therefore the frequency that alcohol is consumed and the amount of alcohol that is consumed was looked see table 3.2.5.b.

There is a direct relationship in relation to the frequency of the consumption of alcohol with the amount of alcohol consumed with a Pearson Chi-Square value of 0.00. This

shows clearly that there is a trend of binge drinking among the students surveyed. This can be seen in the result of 46.3% of students advising that they consume 5 to 9 drinks weekly. With next highest level consumption at 22.2% advising that they consume 10 to 14 drinks weekly, 16.7% advising they consume 15+ drinks weekly and the lowest level of consumption of 1 to 4 drinks giving the lowest percentage of 14.8% of students consuming this amount weekly.

The trend of binge drinking is not just across male students but also female student seen in table 3.2.4.a with 22 to 25 year old being the highest consumers of alcohol. This is a trend that is clear within the social aspect of students as it is seen as a part of being in college when discussing this topic with the students who completed the survey.

#### **4.2.4 Drinking and Driving**

The topic of drink and driving was directly asked about on the survey, this area was in relation to behaviour with the question of have you ever driving under the influence of alcohol. As the question asked directly means that the students has previously committed the offence of drinking and driving the students may not have answered honestly and each student may have instead answer in a socially acceptable manor. 81.3% of students advised that have never driven under the influence of alcohol with 18.7% advising that they had.

The area of gender and driving under the influence of alcohol was looked at to see if there is a direct link between them from the results in section 3.2.5 there is a direct relationship between the genders and drinking and driving with a Pearson Chi-Square value of 0.029. Males showed a higher level of drinking and driving with 25% advising that they have driven under the influence of alcohol with only 4.2% females advising that they have driven under the influence of alcohol see table 3.2.5.a.

A seen in table 3.2.5.a male students showed a higher percentage of previously driven under the influence of alcohol. The area of drinking and driving in relation to age was analysis see chart 3.2.5.b. The highest age groups who have driven under the influence of alcohol is 26 to 30+ , however the number of students surveyed in these age brackets are

relativity low compared to the 18 to 21 and 22 to 25 age brackets therefore there is no direct link within the results of driving under the influence and age.

The result does show that in the 26 to 30 age bracket there it is 50% of the students who have and have not driven under the influence of alcohol. The trend across the age brackets shows that there is an increase in the number of students who have driven under the influence from increasing younger age brackets to the older age brackets see chart 3.2.5.b. This may indicated that the younger age brackets may be less inclined to drink and drive or may be due to the time they have held a licence and level of experience of driving that they have.

There is a direct relationship between driver type and driving under the influence of alcohol with a Pearson Chi-Square value of 0.26 see table 3.2.5.d. The highest percentage at 66.7% of students advising they have driven under the influence of alcohol holding full drivers licences see table 3.2.5.c.

The area of driving under the influence of alcohol the driver is in control and it is personal perception of their own ability to drive under the influence. The driver is putting themselves in danger but the perception of safety is in relation to control that they have as they are in control of the car.

Another area of the behaviour and attitude of students in relation to accepting the act of drunk driving is being a passenger in a car where the driver is under the influence of alcohol. The control of a person's own safety becomes out of their control and in the control of the driver therefore they are putting themselves at risk by choosing to get into the car while the driver is under the influence of alcohol. 51.3% of students surveyed advised that they have not been a passenger in a car while the driver was under the influence of alcohol while 48.7% advised that they had been a passenger in a car with the driver under the influence of alcohol.

The relationship between gender and being a passenger in a car while the driver is under the influence was looked at. It was found that there is a direct relationship between these two areas with a Pearson Chi-Square value of 0.22 see table 3.2.5.f. In table 3.2.5.e it is

clear that of the students who have been a passenger in a car while the driver was under the influence male student's represents highest percentage as 82.1% of advising that they have been a passenger. In contrast only 17.9% of female students advised that they had been a passenger in a car while the driver was under the influence of alcohol. Therefore males put themselves at a personal risk by getting into a car while someone is driving under the influence of alcohol.

With a relationship between gender and being a passenger in a car while the driver is under the influence of alcohol the area of age was then looked at see table 3.2.5.g. There is a direct relationship with age as well as gender with a Pearson Chi-Square value of 0.027 see table 3.2.5.h. As the age brackets increase so does the number of students who have been a passenger in a car while the driver is under the influence of alcohol. This shows that as the ages increase students are more inclined to put themselves at risk by being driven by a person who has consumed alcohol before driving.

The area of driving the morning after consuming alcohol was also looked as the effects of alcohol still has an effect on a person's driving ability the morning after consuming. Alcohol may be either still in a system leading to the possible of still having a BAC over the legal limit and also the effects of the common term of a hangover as discussed in section 1.4 will have an effect on a person's driver ability. There was a total of 52.5% of students who advised that have driven the morning after consuming alcohol see chart 3.2.5.d. The main reason for the journey at 23.8% was to go to work see chart 3.2.5.e.

#### **4.2.5 Legal Limits**

The area of knowledge of students directly in relation to the new limits in the Road Traffic Act 2010 which was brought in on the 28<sup>th</sup> of October 2011 was investigated with results in section 3.2.6. There was a 6 month period where the limits have been enforceable when the survey was performed. Chat 3.2.6.a shows the percentage of answers given by students in relation to the limit for specified drivers and chart 3.2.6.b for the limit for normal drivers.

The correct limit for specified drivers is 20mg/100ml BAC and for normal drivers 50mg/100ml BAC. From chart 3.2.6.a only 36.6% of students knew the limit for a specified driver and only 25% of students knowing the limit for normal drivers see chart 3.2.6.b. Students underestimated the limit for specified drivers at 40% advising that the limit is 10mg/100ml which shows that they expected the limit to be at a lower level than is currently is.

From the students surveyed only 16.3% of students did not know the limit at all for a specified driver. Overall students did choose the lower limit options for specified drivers thus showing that the student surveyed knowledge in relation to the legal limits is not at a high percentage however the majority of students by underestimating the limits show that they expect the amount of alcohol that they can consume before driving is relatively low amount.

25% of students knew the correct limit for normal drivers at 50 mg/100ml. The next highest option was for 20mg/100ml at 27.5% which is the limit for a specified driver, from discussions with the students those of who answered the same for both specified and normal drivers was not aware of the higher level for the normal driver due to the greater level of experience that they have. Students response to this indicated that they felt all drivers should be tested at the lower limits.

This is reflected with 23.8% of students choosing the option of 10mg/100ml for a normal driver and only 6.3% choosing the old limit of 80mg/100ml. Overall only 17.5% of students surveyed did not know the limit for a normal driver compared to 16.3% of students not knowing the limit for specified drivers.

The link between gender and knowledge in relation to the drink driving limits was investigated to see if there was a relationship between the knowledge base of female and male students in relation to the drink driving limits. See table 3.2.6.a. There is a relationship between gender and the knowledge in relation to the limit for drink driving with a Pearson Chi-Square value of 0.33. Male students at 39.3% knew the correct limit for specified drivers table 3.2.6.b. With 65.2% of the male's surveyed coming under the banner of specified drivers this shows that just over half knew the respective limit. Female

students underestimate the limit for specified drivers with 62.5% of female students advising the limit for a specified driver was 10mg/100ml. 19.6% of males did not know the limit for a specified driver compared to 8.3% of females.

The trend of males having a greater knowledge in relation to the legal limits is clear with the limit for a normal driver with 28.6% of male students knowing the limit of 50mg/100ml with female at 16.7% knowing the correct limit. Again female students underestimated the limit for normal drivers with 41.7% advising that the limit for normal drivers is 10mg/100ml. Male drivers at 28.6% advised the limit for normal drivers was the same as that for specified drivers this may be due to the high level of specified drivers that was surveyed.

The area of driver type and knowledge of the legal limits was looked at to see if the students are aware of the legal limits that will affect them directly depending on the licence type. Full driver licences holders underestimated the limit for specified drivers with 46.7% advising the limits is 10mg/100ml see chart 3.2.6.c. Overall the specified drivers both holding full licences under two year and provisional drivers had the highest percentage of knowledge in relation to the legal limit of their driver category limit of 20mg/100mL. The highest percentage of driver type who did not know that limits was specified drivers with a full licence under two years at 27.3%.

26.7% of full licence holders answered the correct limit of 50mg/100ml this is a lower percentage then specified drivers knowing the legal limit for their category thus showing that the students holding full licences did not have as much knowledge of the limit that affect them to the same level as that of students who are specified drivers. Across the driver types the legal limit was underestimated then over estimated in both categories of limits for specified and normal drivers.

The area of knowledge of the legal limits can also be broken down within the age brackets of the students surveyed see chart 3.2.6.e. for specified drivers limit and chart 3.2.6.f for normal drivers limit. The age bracket of 18 to 21 was the group that had the highest percentage of students who know the limit for specified drivers at 40% followed by the 22 to 25 age bracket at 36.4%. Each age group underestimated the legal limit for specified

drivers rather than overestimating the limit with 75% of 26 to 30 year old age bracket advising that 10mg/100ml was the legal limit for specified drivers see chart 3.2.6.e.

The majority of students surveyed did underestimate the legal limit for both normal and specified drivers. Of the students surveyed 36.3% of students knew the limit for specified drivers of 20mg/100ml and 27.5% of students who knew the limit for normal drivers of 50mg/100ml.

#### **4.2.6 Enforcement**

The area of enforcement was looked at as the enforcement of drinking and driving is a key part in implementing new legislation. Of the students surveyed only 13.8% were breathalysed by An Garda Síochána in the last six months leaving 86.3% of students who hold a driver's licence that have not been breathalysed in the last six months. The highest percentage of age groups that was breathalysed was the 26 to 30 year old age bracket at 25% advising that they have been stopped in the last six months. See Chart 3.2.7.b.

The relationship between driver type and drivers who have been stopped was looked at see table 3.2.7.a. The highest percentage of driver type to be tested was the students who hold a full driver's licence. There is a relationship with the driver type and who has been breathalysed in the last six months with a Pearson Chi-Square value of 0.002 see table 3.2.7.b.

The main deterrent for not committing the offence of drinking and driving was looked at among the students surveyed with the highest percentage at 51.3% of students advising that the main deterrent for not drinking and driving is the fact that it is an illegal act. Corresponding with this the next highest deterrent at 31.3% is the fear of prosecution and penalties. This shows that enforcement is an area working in relation to targeting the reduction in cases of drunk driving.

The main deterrent was also broken into gender to see what the main deterrent is for male and female students surveyed see Table 3.2.7.c. There is a relationship between the



genders and the main deterrent for not drinking and driving with a Pearson Chi-Square value of 0.006 see table 3.2.7.d.

In relation to fear of prosecution and penalties 92.8 % of students who have put this as the main deterrent was male. In relation to the highest deterrent of drink driving being illegal the split between females and males is nearly evenly with 43.9% being female and 56.1% being male who put this as their main deterrent. The remaining two the social stigma of being caught and its dangerous was the two lowest deterrents advised by students of both genders.

#### **4.2.7 Student participation**

The students where asked what area they are currently studying the two highest areas was that of science and engineering evenly at 26.3%.

The student's studying these areas did show a high interested in the area of drunk driving and discussed the area after filling the survey out. Males took a greater interest in the area then females and took the chance to discuss the topic with the member of An Garda Síochána present at the time of the survey. There was only one fail for the breathalyser testing.

### **4.3 Semi- Structured Interviews**

Each semi-structured interview was performed in private with the participants in order to obtain honest answers from the partipants without applying pressure. The semi-structured interviews were performed to obtain an additional point of view in relation to behaviour, attitude and knowledge from a representative group of peers who are all graduates.

The participants were chosen with three selection points these where age and the fact that they are graduates who have recently left third level education and all are currently in full time employment therefore there a certain level of responsibility from going for a student

to a full time employment and the additional dispensable income that the participants now have.

The additional area in the semi-structured interviews in relation to the media campaign from the RSA regarding the change in limits was asked to see if it was recognisable to the participating graduates and if the message of the change in limits was clear and memorable. This was a small aspect to the study however it does give a small indication of the impact of the RSA media campaign as laid out in the actions for drinking and driving in the Road strategy plan 2007-2012 to coincide with the works of An Garda Síochána.

The results from the semi-structured interviews were analysed under the same areas of that of the student survey for a comparative overview of the two with full result of the semi-structured interviews seen in section 3.3.

#### **4.3.1 Age and Gender**

The total 14 semi structured interviews that were performed there were 7 male participants and 7 females participants with this equal number of males and females it will give a better overview of the area of knowledge, behaviour and attitude with the variable of gender.

The age brackets of the participating graduates were split in an even manor across the age brackets. The age bracket of 22-25 and 26-30 both represented 37.5% of participants interviewed The remaining two age brackets again were evenly split with 14.3% of participants being in the age brackets of 18-21 and 30+ see chart 3.3.1.b.

#### **4.3.2 Driver type**

Driver type was analysed against the age and gender of the participating graduates see charts 3.3.2.b and chart 3.3.2.c. The highest percentage of participants interviewed held a full drivers licence at 64.3% followed by 21.4% hold a full licence under a two year period and finally 14.3% hold a provisional licence. Therefore 35.7% of participants would be tested under the limit as a specified driver while 64.3% will be tested at the higher as a normal driver.

71.4% of females interviewed held and full driver licence compared to 57.1% of males this corresponds to the observations made at the MAT checkpoints however this does not correspond to the student survey where males had the higher percentage of full licence holders however there was a high percentage of male students surveyed. The semi-structured interview had an equal amount of females and male's therefore gives a better representation in relation to the gender and driver type.

#### **4.3.3 Alcohol Consumption**

The number of alcoholic drinks consumed on an average night out was left as an open ended question to obtain the drinking behaviour and the amount consumed by each participant, a range of answer given by the percipients see chart 3.3.3.a. The highest number of drinks that was consumed was 15 drinks on a night out. The highest range drinks consumed was between 5 and 9 drinks on an average night out at 21.4% of participants advising that they consume 5 drinks as their average consumption. 14.3% advised that they consume 6 drinks, 21.4% consuming 7 drinks and 7.1% consuming 9 drinks. The range of 5 to 9 drinks consumed on a night out is also the highest range from the results of the student survey showing the average level of consumption across the two group relativity remained the same.

The frequency of consumption gives an indirection of binge drinking among the participating graduates as the amount of alcohol consumed on a single night out is between the range 5 to 9 drink with 15 drinks being the highest consumed therefore this in connection to frequency indicates the drinking trend.

Chart 3.3.3.b shows how often alcohol is consumed by the participants interviewed with 64.3% of participants advising that they consume alcohol on a weekly bases. This frequency of consumption corresponds with that of the consumption of students surveyed with weekly consumption being highest level of consumption among student and the participating graduates interviewed.

To obtain more information in relation to the periods of time that alcohol is consumed this was directly asked in the interviews. From chart 3.3.3.c it's clear at 92.9% of participant consumed alcohol at weekends. Weekends are the highest risk times on Irish roads for traffic collisions and from the result this is period of time that alcohol is most consumed during this high risk period. With the trend of average consumption on a night out, the frequency of alcohol consumed and the period of time that it is consumed the trend of binge drinking is not only among the student body but within the age group as a whole.

The open question in relation to the type of alcohol that was consumed gave an indication of the concentration of alcohol that is consumed on an average night out with the majority of participants advising that they start off by consuming beer such as Coors light (4.2% alcohol by volume equal to 0.98 standard drinks) , Corona (4.5% alcohol by volume equal to 1.21 standard drinks) and Budweiser (4% alcohol by volume equal to 0.97 standard drinks). The participants advised that later on in the night they mixed their drinks moving on to shorts such as vodka and Bacardi at different volume with different mixers. This gives an indication to the different levels concentration of alcohol in that will be entering the blood stream of the participants on a night out therefore leading to a high BAC level.

#### **4.3.4 Drinking and Driving**

There were a higher percentage of participants who admitted to the act of drinking and driving then seen within the student body. The percentage that admitted to the act of drinking and driving at 57.1% is not that much higher than those who haven't driven under the influence of alcohol at 42.9% see chart 3.3.4.a. The higher percentage admitting to the act may be due to the nature of the semi-structured where is put across that social expectation was not an issue and to answer honestly.

The driver type that has the highest percentage of participants that have driven under the influence is specified full licence drivers with 66.7% admitting to drinking and driving see chart 3.3.4.b. Across the other driver types the percentage of participants who has and has not drove under the influence is nearly evenly split this shows that half of the drivers in the remaining categories have driven under the influence of alcohol see chart 3.3.4.b. This is a

contrast with the student survey with full licence holders being the highest percentage of drivers who have driven under the influence of alcohol.

The area of gender and drinking and driving was looked at due to the direct relationship observed between the two in the student survey. This direct relationship continued with the participants in the semi-structured interviews with a Pearson Chi-Square value of 0.031 see table 3.3.4.b.

As with the students survey the direct relationship between gender and drinking and driving shows that males have the highest percentage participants who have drunk and drove. From the participating graduates interviewed 85.7% of males advised that they have driven under the influence of alcohol with only 28.7% of females advising that they have driven under the influence of alcohol. This shows overall with the higher level of alcohol consumption and rate of consumption that males are the greatest risk group on the roads in relation to drinking and driving. The male's behaviour towards drinking and driving is more lax than females as a higher percentage of males putting themselves at risk.

As with the student survey the area of behaviour and attitude was investigated with the question have you been a passenger in a car with a person driving under the influence of alcohol. 85.7% of participants advised that they have been a passenger in a car while the driver was under the influence of alcohol see chart 3.3.4.c. This high percentage shows that a high number has put themselves at personal risk by getting into a car while someone is drinking and driving this shows their attitudes towards the act of drink and driving by putting themselves at risk of being in a traffic collision.

The area of gender and being a passenger in a car was investigated see chart 3.3.4.d. All of the male participants advised that they have been a passenger in a car while the driver was under the influence of alcohol this shows that males put themselves at risk more so than females at 71.4% see table 3.3.4.d. This result is backed by the fact that 85.7% of males have also driven under the influence.

The area of behaviour was looked at again in relation to driving the morning after a night of consuming alcohol as alcohol can affect a person's driving ability while being

excreted from the body. The same question was asked in the interviews as that on the student survey see chart 3.3.4.e. 78.6% of participants advised that they have driven the morning after a night of consuming alcohol with the level of consumption of alcohol the participants BAC levels will be at a high level and will take longer to level the system which will have an effect on the human body will thus effecting the drivers driving ability. This 78.6% is an increase from the 52.5% of students advising that they have driven the morning after a night of consuming alcohol. This increase may be due to the fact that the participants drive to work on a more regular base. The main reason for driving of the participants who have driven the morning after was to get to work see chart 3.3.4.f.

#### **4.3.5 Legal limits**

The area knowledge in relation to the legal limits was asked to obtain the knowledge base of the participants in relation to the legal limits for a driver in relation to drinking and driving. The direct question regarding the limits was asked in the same manor that was asked on the student survey with the additional questions in relation to attitude towards the limits and also personal perception of the amount of alcohol that can be consumed while staying under the legal limit.

The area of personal opinion was broken into gender to see if males or females think that can drink a high or low amount of alcohol while remaining under the legal limit see table 3.3.5.a. Female participants advised that they can only drink 1 to no drinks before to remain under the legal limit with 42.9% off females advised that they can drink no alcohol at all and 57.1% advising that they can have one average drink. In contrast male participants at 57.1% advised that can consume 2 drinks while remaining under the legal limit and a 14.3% split between no drinks, one drink and three drinks.

The options for the limit for specified drivers were the same options given to the students surveyed that were given to the participating graduates in the interviews see chart 3.3.5.b. There was only two option selected for the limit for specified drivers this was 10mg/100ml and 20mg/100ml, 57.1% of participants knew the correct limit for that of a specified driver while 42.9% underestimated the limit. Compared to knowledge base of students 40% of students underestimated the limit for a specified driver choosing 10mg /100ml while

36.3% knew the limit correct limit and 7.5% place it at a higher limit of 50mg/100ml , therefore the participants interviewed had a greater knowledge based in relation to the limit.

The trend continues from the student survey that females underestimated the legal limit with 57.1% of female's advising that the limit for specified drivers is 10mg/100ml see chart 3.3.5.c. 71.4% of the male participant's knew the legal limit for specified drivers of 20mg/100ml which is a higher percentage than male students surveyed at 28.6% male students knowing the legal limit.

Driver types and knowledge of legal limits was investigated to see if the driver type knows the legal limits that applies to them under the law see chart 3.3.5.d .All of the provisional drivers knew the limit that applies to them while 66.7% of specified full licence drivers knew the correct limit of 20mg/100ml. The trend of full licence drivers underestimating the limit for specified driver's continued from the student survey with 55.6% advising the limit for a specified driver is 10mg/100ml.

The analyses of the limit for normal drivers was performed in the same manner as for the limit for a specified drivers with the same options given to the participants as was given to the students surveyed see chart 3.3.5.e. 42.9% of participants know the correct limit for a normal driver of 50mg/100ml with 35.7% of participants advised that the limit for a normal driver is the same for a specified driver and 21.4% underestimated the limit by choosing 10mg/100ml as the limit for normal drivers. There is again a higher knowledge base of the legal limits among the participating graduates interviewed in relation to the legal limits compared to the students surveyed with only 25% of students knowing the legal limit for a normal driver.

The trend of females under estimating the limit for a normal driver continued from the student survey. 42.9% of female participants advised that the legal limit for a normal driver is 10mg/100ml. 42.9% of males and 28.6% of females advised that the legal limit for a normal driver is the same as that of the specified driver. The highest percentage at 57.1% of males knew the correct limit for a normal driver with 28.6% of females knowing the legal limit see chart 3.3.5.f. Full licence drivers had an even split across three options of limits with 33.3% of each advising the limit for a normal driver is 10mg/100ml,

20mg/100ml and 50mg/100ml. Provisional drivers knew the correct limit for full licence drivers see chart 3.3.5.g.

The additional question in relation to personal opinion of how much alcohol should be permitted before driving was asked in the semi-structured interview with 100% of participants advising that there should be no alcohol at all consumed before driving. With this opinion this would lead to a BAC of 0.00mg/100ml which was advised to the participants. Upon discussion on the topic the majority of the participants advised that if the BAC was 0 this would reduce drinking and driving across Ireland and so deaths and accidents caused by drinking and driving.

### **3.3.6 Enforcement and deterrents**

The area of enforcement and the main deterrent was included in the semi-structured interviews with a question in relation to the likelihood of being breathalysed by An Garda Síochána, the main deterrents from not drinking and driving, the experience of enforcement and also the participating graduates opinions of the penalties for drinking and driving

There was four option given in relation to the chance of being breathalysed the highest percentage of 35.7% of participants advised that it is rare that to be stopped by An Garda Síochána at a MAT checkpoint see chart 3.3.6.a. 28.6% advised that there is never a chance of being stopped by An Garda Síochána to be breathalysed while only 21.4% advised that you would be stopped often by An Garda Síochána and breathalysed.

The question of penalties in relation of the offence drunk driving was also broached where the participating graduates who were shown the current penalties as seen in Table 1.7.3.1 a: Fixed Penalties and Table 1.7.3.2.b: Consequential Disqualification discussed in section 1.6 for the offence and explained the process of fixed penalties and further disqualification. The question that was asked 'do you agree with the following statement: *Penalties for drunk-driving should be much more sever*. Five options were given to the participants these where Strongly Agree, Agree, Neither Strongly Agree nor Disagree, Disagree and Strongly Disagree. 50% of participants agreed that penalties should be stronger for the



offence of drinking and driving while 14.3% strongly agreed and 35.7% did not have a strong option either way in the area see chart 3.3.6.b.

The experience of enforcement was also asked of the participants with the question have you been breathalysed in the last six months again this question was the same question on the student survey for the same reason that the new limits had been enforceable for over a five month period at the times of the interviews. 78.6% of participants have not been breathalysed in the last six month with 21.45% have been breathalysed see chart 3.3.6.c. The percentage of participant who has been breathalysed in the last is an increase from the student survey with only 13.7% of the students surveyed being breathalysed. The experience of being breathalysed was analysed against gender with 28.6% female participants being breathalysed compared to 14.3% of males.

The main deterrents in relation to drinking and driving given to the participants in the semi-structured interview was the same given to the students surveyed with only a change in the area of danger with breaking this into the danger to yourself and the danger to others. The highest deterrent is fear of prosecution and penalties with 50% of participants advising this was their main deterrent with the danger to others at 28.6% then the fact that it illegal at 21.4%

The trend continues from the student survey where the fact that the act of drunk driving it illegal and as it is illegal there are penalties and prosecutions in relation to breaking the law. This shows that across the student body and also with graduates the effect on them personally and respect for the law is the greatest deterrents for not drinking and driving. There is a change on the social aspect and in relation to the deterrent with 28.6% of participants advising that the danger to others is a deterrent for not drinking and driving this differs from the student survey when the fact that the act is illegal shows at a higher percentage than the social duty of danger on the roads.

#### **4.3.7 Road Safety Authority Media Campaign**

The Road Safety Authority television advert as illustrated see in section 1.5 was shown to the participants without advising what the advert was in relation to. The question asked

after the participant viewed the advert was firstly did they recognise the advert. 92.9% of participants did not recognise the advert as the RSA advert for the reduction in the limits in relation to drinking and driving see chart 3.3.7.a.

The second section to the question was an opened question to the participants asking if the television advert relayed to them the importance of the reduction of the legal limit from the general limit of 80mg/100ml down to 20mg/100ml for specified driver who are provisional licence holder or a person holding a full licence for less than two years and 50mg/100ml for a normal or experienced driver holding a full drivers licence over a two year period. The same percentage 92.9% that did not recognise the advert also felt that it did not relay the importance of the changes see chart 3.3.7.b.

## **Chapter 5 – Conclusion**

The purpose of this study is to gauge the attitude, behaviour and knowledge of students in the age group of 18 to 30 in relation to drinking and driving. The results from observations made at the Mandatory Alcohol Testing checkpoints gave an overall indication of the Irish roads users attitude towards drinking and driving enforcement. Performing a survey on students gave direct information from the student body and the semi structured interviews performed on selected graduates gave for a comparison with the student body.

The area of attitude was firstly observed at MAT checkpoints ran by An Garda Síochána. The results from the observations made showed that overall there is support from the general road user in Ireland for these checkpoints. Interactions with the drivers stopped and Gardaí showed a high level of cooperation without the expected level of impatience from the drivers by being stopped. There was an acceptance from the drivers for the enforcement in relation to drinking and driving with no observations of aggression towards the Gardaí for being stopped and breathalysed. There was no recorded fails across the two checkpoints with over 100 drivers tested. This pass rate also gives an indication that the level of drinking and driving may be reducing which is consistent with the Gardaí annual report 2011 that reported the drop in the number of recorded PULSE incidents in relation to drunk driving. The perceived general attitude of acceptance from Irish road user established a positive overview of acceptance of enforcement and a positive attitude towards the area. These findings established a basis for the investigation of the attitude of students towards drinking and driving.

The attitude of the students in relation to drinking and driving was obtained through the survey performed with the students and in the semi-structured interviews with the participating graduates. The area of being a passenger in a car with a drunk driver gave an indication of the level of acceptance of the students and of the graduates interviewed towards the act by examining the extent of which students and graduates place themselves in danger by being driven by a drunk driver. There was a high percentage of students advising that they have been a passenger in a car with a drunk driver with an even higher percentage of graduates advising that they had been a passenger. All of the male graduates interviewed and a high percentage of male students surveyed advised that they have been a passenger in a car while the driver was under the influence of alcohol. With the higher percentage of male compared to females placing themselves at risk it is clear that from the

results of the student survey and the semi-structured interviews the male's in this age group attitude is more lax towards drinking and driving by condoning the act by being a passenger in the car and having a high risk being in a traffic collision.

The additional question in relation to personal opinion of how much alcohol such be allow before driving was asked in the semi structured interview with 100% of participants advising that there should be no alcohol at all consumed before driving. With this opinion this would lead to a BAC of 0.00mg/100ml which was advised to the participants. Placing the BAC at 0 would place a strong anti drink driving message in Ireland .However from the literature review especially the white paper reducing the limit to 0 is a safer option but will have a downward effect on economics especially within rural areas in a country. Therefore the limit reduction to 20mg and 50mg/100ml is a prominent reduction which will hopefully reduce the number of alcohol related collisions a reduction to 0.00 is very unlikely due to the high percentage of rural areas in Ireland.

The main deterrent for not committing the offence of drinking and driving was looked at among the students surveyed and the participating graduates interviewed. The deterrent which was selected most by the students was the fact that it is an illegal act this was also prominent among the participating graduates interviewed. The main deterrent for the graduates interviewed was the fear of prosecution and penalties which was the second highest deterrent selected by the student body. This shows that across the student body and also with graduates the effect on them personally and respect for the law is the greatest deterrents for not drinking and driving. This shows that enforcement is an area that is working in relation to targeting the reducing cases of drunk driving. The area of social stigma and a duty of care on the road came at a low percentage with the students participating graduates do show more of a social responsibility to safety on the roads with a quarter of participants choosing the area of social accountability, however this deterrent is still not as prominent are the area of enforcement among the students and graduates.

The overall attitude from students and participating graduates is positive with high percentage advising main deterrents is respect for the law with an underlining concern of personal ramification that being caught drinking and driving will have on them directly. However a low percentage of the 18 to 30 age bracket selected the danger of act as a

deterrent which shows that the attitude towards not drinking and driving is for personal preservation rather than a social and safety responsibility on the roads.

The overall attitude from students and participating graduates is positive with high percentage advising main deterrents is respect for the law with an underlining concern of personal ramification that being caught drinking and driving will have on them directly. However a low percentage of the 18 to 30 age bracket selected the danger of act as a deterrent which shows that the attitude towards not drinking and driving is for personal preservation rather than a social and safety responsibility on the roads.

The behaviour of drinking among the students and the participating graduates shows a trend of binge drinking across the age group as a whole. The highest number of drinks that was consumed was 15 drinks on a night out. With an average range of 5 – 9 drinks consumed on a night out, the average level of consumption across the two group relativity remained the same at 5 to 9 drinks. The trend and perception of males drinking a higher level of alcohol on an average night out is still present among those surveyed and interviewed. Male students and graduates do consume a higher percentage of drinks on a night out however females show a trend of catching up in the area of average alcohol consumption. The age brackets of 22 to 25 years olds are the highest consumers of alcohol across the students and the participating graduates interviewed. The trend of binge drinking is clear within the social aspect of being an average student as it is seen as a part of being in college this trend of binge drinking has clearly remained with the graduates interviewed. Weekends are the highest risk times on Irish roads for traffic collisions and from the results this is the period of time that alcohol is most consumed. With the trend of average consumption on a night out, the frequency of weekly alcohol consumed and the period of time that it is consumed the trend of binge drinking is prominent among females and males in the age group of 18 to 30 this leads to a higher risk on Irish roads.

The topic of drink and driving was directly broached on the survey given to students and asked in the interviews with participating graduates. The question gave an overview of behaviour with students and graduates advising if they have ever driving under the influence of alcohol. The area of driving under the influence of alcohol the driver is in

control and it is personal perception of their own ability to drive under the influence. The danger that the driver is putting themselves and other road users under is at a level of personal perception. The student survey was filled in by the students directly which may have given the students the option to answer in a socially acceptable manner rather than honestly. In the semi-structured interviews this question was directly asked to the participants and it was made clear that the socially acceptable answer is not what was expected but an honest answer this elicited honest answers as a higher percentage of participants admitted to drinking and driving. The student body surveyed showed a high percentage of participants advising that they have never driven under the influence of alcohol this percentage decreased among the participating graduates interviewed with a higher percentage of graduates admitting to drunk driving. Males in the age group of 18 to 30 both graduates and students showed a higher level of drinking and driving than females in the age group. This shows overall with the higher level of alcohol consumption and rate of consumption that males in this representative sample age group are the greatest risk group on the roads in relation to drinking and driving. The male's behaviour towards drinking and driving is more lax than females as a higher percentage of males putting themselves at risk

The results show that across the age brackets there is an increase in the number of students and graduates who have driven under the influence of alcohol increasing from the younger age brackets to the older age brackets. This result indicates the younger age brackets are less likely to commit the offence of drinking and driving and if this age group is targeted correctly then the likelihood of them committing the offence in the future will decrease. The students and graduates main deterrents for not committing the offence of drunk driving is the area of enforcement therefore with strong enforcement accompanied by direct campaigns targeting this demographic will aid in the changing the behaviours and attitudes towards driving under the influence of alcohol.

The knowledge of students towards drinking and driving will have a large effect on their behaviour and attitude. An indication to a basic area is the lasting effects that alcohol can have on the body therefore driving the morning after a night of consumed alcohol gave an indication of the knowledge of the effects of alcohol. More than half of the students surveyed advised that they have driving the morning after a night of consuming alcohol

With the trend of binge drinking among students there is a possibility that they may still have a BAC over the legal limit and the danger of reduction in driving ability is still present. There was a higher percentage of participating graduates interviewed who drivers the morning after consuming increased from the students surveyed. This shows that students and graduates are lacking in knowledge of the danger of binge drinking then driving the morning after where a traffic collision can still occur due to effects of the alcohol.

The area of knowledge of students and participating graduates directly in relation to the new limits introduced by the 2010 Road Traffic Act brought in on the 28<sup>th</sup> of October 2011 directly give a result on the level of knowledge of drinking and driving. Overall the majority of students underestimated the limits showing that they expect the amount of alcohol that they can consume before driving to be a relatively low amount. Across the driver types the legal limit was underestimated in both categories of limits for specified and normal drivers. Just under half of students knew the correct limits for specified and normal drivers. The participating graduate's interviewed had a greater knowledge of the new legal limits compared to the student body. The trend of underestimating the legal limits is a positive outcome as although over half of the students did not know the limits they selected a low limit then a higher limits showing an expectation of a low tolerance of drinking and driving.

The knowledge of the limits for drinking and driving was most likely relayed to the student body and the graduates interviewed on a national level through media campaigns and college awareness days. To see if these areas are working and is reaching the age group of 18-30 a single Road Safety Authority television advert relating the reduction in limits was selected as a representative to show to the participating graduates being interviewed. 92.9% of participants not recognise the advert as the RSA advert for the reduction in the limits the same percentage 92.9% that did not recognise the advert also felt that the advert did not relay the importance of the changes in the drinking and driving limits.

With additional comment advising that the advert is not graphic enough for it to be memorable and *although the advert advises of the number of lives that has been saved you zone out before the voice over advised of the changes in limits*. Participants also advised



that adverts such as speed kills is more memorable also the adverts of victims and their families disusing accidents was more memorable. Thus indicating that the media campaign of the change may not have impacted enough on the 18-30 age groups to educate them in relation to the limit changes. This is also evident with the result of the knowledge base of the participants and student as more than half did not know the new limits for drinking and driving

Enforcement is the main deterrent for the age group of 18-30 for not drinking and driving and enforcement of drinking and driving is a key part in implementing new legislation and changing attitudes according to the RSA model for change. Therefore the area of enforcement investigated among the students and graduates interviewed. Of the students surveyed only 13.8% were breathalysed in the last six months leaving. The highest percentage of age groups that was breathalysed was the 26-30 year old age, The percentage of participant who has been breathalysed in the last is an increase from the student survey to 21.45%. As the area enforcement is the main deterrent for students and graduates therefore the option on the likelihood of being breathalysed by An Garda Síochána was investigated among the graduates interviewed. The highest percentage on the likelihood on being stopped is rare therefore it is the underline fear of being caught that is most prominent then at likelihood of being caught.

The Road Safety Authority model for change aim is to change attitudes and behaviour of road users through education and enforcement. The perceived general attitude of acceptance from road users in Ireland established a positive overview of acceptance of enforcement and a positive attitude towards the area indicating that the implementation of the strategy plan has been effect to a certain extent. In relation to the students in the age group of 18-30 the education in the area of drinking and driving is lacking. In the area of the underlining lasting effects that alcohol can have on the human body that can still affect driving ability even after sleeping after a high concentration of alcohol is consumed is relatively low among the student body. In the area of knowledge of the legal limits the overall the majority of students underestimated the limits showing that they expect the amount of alcohol that they can consume before driving to be a relativity low amount. With just under half of students knowing the correct limits for specified and normal drivers there is clearly a lack of knowledge in relation to the legal limits which have been a focus

of media campaigns. The trend of underestimating the legal limits is a positive outcome as although over half of the students did not know the limits they selected a low limit then a higher limits showing an expectation of a low tolerance of drinking and driving.

The area of enforcement as a key part of changing attitudes and behaviours shows an effect on the student population that was surveyed and also the participating graduates that were interviewed. From the results of this study the main deterrent is the area of drinking and driving is directly regarding the enforcement drinking and driving laws. Therefore more targeted campaigns for the student body in the age group of 18-30 is need to educate this demographic to coincide with the enforcement that is currently working. This will aid in changing the behaviour and attitudes of the student and increase the knowledge base that will have a knock on effect when the students leave third level education and enter into the working world as there will be an imbedded anti drink driving frame of mind among the age group.

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# **Appendix 1**



MAT Checkpoint Observation

Time starting:

Time ending:

| No | Sex |   | Driver age bracket |       |       |       |     | Driver Type |   | Result |      | Comments |
|----|-----|---|--------------------|-------|-------|-------|-----|-------------|---|--------|------|----------|
|    | M   | F | 17-29              | 30-44 | 45-54 | 55-64 | 65+ | N           | S | pass   | fail |          |
|    |     |   |                    |       |       |       |     |             |   |        |      |          |
|    |     |   |                    |       |       |       |     |             |   |        |      |          |
|    |     |   |                    |       |       |       |     |             |   |        |      |          |
|    |     |   |                    |       |       |       |     |             |   |        |      |          |
|    |     |   |                    |       |       |       |     |             |   |        |      |          |

## **Appendix 2**



## Drink Driving Questionnaire

This questionnaire is **anonymous and confidential** please answer the questions truthfully and to the best of your ability

Q 1& Q2) Gender and Age: Male ☐ Female ☐  
18 - 21 ☐ 22 - 25 ☐ 26 -30 ☐ 30+ ☐

Q 3) Do you hold a driver license, if so what type?

Provisional ☐ Full license for less than 2 years ☐ Full licence for more than two years ☐

Q 4) In what area are you most likely to drive? Urban ☐ Rural ☐ Both ☐

Q 5) On average how many drinks containing alcohol would you consume on a night out?

0 ☐ 1-4 ☐ 5-9 ☐ 10 – 14 ☐ 15+ ☐

Q6) How often do you drink?

Daily ☐ Weekly ☐ Monthly ☐ Yearly ☐ Never ☐

Q 7) Have you ever knowingly driven while under the influence of alcohol?

Yes ☐ No ☐

Q 8) Have you ever knowingly been a passenger in a vehicle with a person driving under the influence of alcohol? Yes ☐ No ☐

Q 9) Have you ever driven the morning after a night of consuming alcohol?

Yes ☐ No ☐ If yes what was the reason for this journey? \_\_\_\_\_

Q 10) Do you know the current alcohol limit for drivers for the flowing categories?

(i)Specified persons who have held a licence for less than 2 years or a provisional licence?

10mg /100 mL ☐ 20 mg / 100 mL ☐ 50 mg / 100 mL ☐ 80 mg / 100 mL ☐ 100 mg / 100 mL ☐

(ii) People who have held a licence for over 2 years?

10 mg / 100 mL ☐ 20 mg / 100 mL ☐ 50 mg / 100 mL ☐ 80 mg / 100 mL ☐ 100 mg / 100 mL ☐

Q 11) Have you been breathalysed in the last 6 months?

Yes ☐ No ☐ If so at what time of the day \_\_\_\_\_

Q 12) What in your option is the main deterrent for not drinking and driving?

Social stigma of being caught ☐ Fear of prosecution or penalties ☐ Its Illegal ☐ its dangerous ☐

Result of Breathalyser: \_\_\_\_\_

**THANK YOU FOR YOUR CO-OPERATION AND TIME**

## CONSENT FORM

|   |                  |
|---|------------------|
| <b>Researcher's Name:</b> MARTHA SMITHERS   | <b>Title:</b> MS |
| <b>Faculty:</b> environmental and food science  |                  |
| <b>Title of Study:</b><br>THE SAFETY PERCEPTION OF STUDENT BETWEEN 18-25 REGARDING DRIVING THE MORNING AFTER CONSUMING ALCOHOL USING BREATH SAMPLES TO DETECT ALCOHOL LEVELS  |                  |
| <b>To be completed by the volunteer</b>   |                  |
| Are you over 18 years of age? YES/NO<br><br><b>IF YOU ARE UNDER 18, YOU ARE NOT ELIGIBLE TO BE A SUBJECT OF THIS STUDY. PLEASE INFORM THE RESEARCHER AND DO NOT COMPLETE THE REMAINDER OF THIS FORM.</b><br><br>Have you been fully informed about this study? YES/NO<br><br>Have you had an opportunity to ask questions and discuss this study? YES/NO<br><br>Have you received satisfactory answers to all your questions? YES/NO<br><br>Have you received enough information about this study? YES/NO<br><br>Do you understand that you are free to withdraw from this study?<br>• at any time<br>• without giving a reason for withdrawing<br>• without affecting your future relationship with the Institute YES/NO<br><br>Do you agree to take part in this study the results of which are likely to be published? YES/NO<br><br>Have you been informed that this consent form shall be kept in the confidence of the researcher? YES/NO |                  |
| Signed _____ Date _____<br><br>Name in Block Letters _____<br><br>Signature of Researcher _____ Date _____  |                  |

## **Appendix 3**

Q 1) Gender and Age:      **Male** ☐      **Female** ☐  
                                 **18 - 21** ☐      **22 - 25** ☐      **26 -30** ☐      **30+** ☐

Q 2) Do you hold a driver license, if so what type?

**Provisional** ☐      **Full license for less than 2 years** ☐      **Full licence for more than two years** ☐

Q 3) In what area are you most likely to drive?   **Urban**   ☐   **Rural**   ☐      **Both**   ☐

Q 4) What is you occupation?

Q 5) On average how many drinks containing alcohol would you consume on a night out?

\_\_\_\_\_

Q 6) What types of drinks are you likely to drink on a night out (with brands and measures)

Q7) How often do you drink?

**Daily** ☐      **Weekly** ☐      **Monthly** ☐      **Yearly** ☐      **Never** ☐

Q8) When are you most likely to drink?

**Weekends** ☐      **Mid week** ☐      **Never** ☐

Q 9) Have you ever knowingly driven while under the influence of alcohol?

**Yes** ☐      **No** ☐

Q 10) Have you ever driven the morning after a night of consuming alcohol?

**Yes** ☐      **No** ☐

**If yes what was the reason for this journey?**

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Q 11) Have you ever knowingly been a passenger in a vehicle with a person driving under the influence of alcohol?

Yes ☐

No ☐

Q12) In your option how may drinks can you consume while still remaining under the legal limit? \_\_\_\_\_

Q 13) Do you know the current alcohol limits for drivers in the flowing categories?

(i)Specified persons who have held a licence *for less than 2 years or a provisional licence?*

In excessive of

10mg /100 mL ☐

20 mg / 100 mL ☐

50 mg / 100 mL ☐

80 mg / 100mL ☐

100 mg / 100 mL ☐

(ii) People who have held a licence *for over 2 years?*

10 mg / 100 mL ☐

20 mg / 100 mL ☐

50 mg / 100 mL ☐

80 mg / 100 mL ☐

100 mg / 100 mL ☐

Q14) Which of the following statements best matches your opinion?

**Do you think that drivers should be allowed to drink.....**

No alcohol at all ..... 1

Less alcohol than at present ..... 2

As much alcohol as at present..... 3

More alcohol than at present.....4

As much as they want ..... 5

Q15) In your option, how likely is it you will be checked by An Garda Síochána for alcohol ?

*Never*

*Rarely*

*Sometimes*

*Often*

*Very often*

*Always*

Q16) Do you agree or disagree with the following statements?

*“Penalties for drink-driving should be much more severe*

*Strongly Agree    Agree    Neither Strongly nor Disagree    Disagree  
Strongly Disagree*

Q 17) Have you been breathalysed in the last 6 months?

**Yes** ☐      **No** ☐      **N/A** ☐

Q 18) What in your opinion is the main deterrent for not drinking and driving?

**Social stigma of being caught** ☐

**Fear of prosecution or penalties** ☐

**It is Illegal** ☐

**The danger to yourself** ☐

**The danger to others** ☐

Q19) Do you recognise the following ad campaign? Shown video

**Yes** ☐      **No** ☐

Q20) Do you feel that this advert is relating the importance of the reduction and the alcohol limits?