

RSA

Fatal Collisions 2008-2012

Excessive speed as a factor

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Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority



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Executive Summary

Background to Report

Over the time period 2008 to 2012, 983 fatal collisions occurred on Irish roads claiming the lives of 1,077 people. This report examines 867 of the fatal collisions which occurred during this time period specifically focusing on the vehicle and associated behavioural factors which may have contributed to the collision.

The road collision database in Ireland is created using a form called a C(T)68 forwarded to the Road Safety Authority (RSA) from An Garda Síochána. The information provided in this form is based on preliminary information collected at the scene of a collision and does not constitute the findings of the final investigation. The RSA issues reports regularly using the data contained in this database as the best available representation of fatal and injury collisions.

However, this report is based on an analysis of the completed Garda investigation file where the full circumstances of the collisions are available. Access was granted by An Garda Síochána to the completed Investigation File produced for each collision. The file contains two main reports:

1. An Garda Síochána Investigation Report
2. Forensic Collision Investigation Report (FCI)

The RSA collected the data in the Garda National Traffic Bureau. This report provides an analysis of the data by collision, by vehicle and by contributory factor. Therefore, the figures and totals will change depending on the category.

Excessive Speed as Contributory Factor in Collisions Analysed

Of the 867 collisions analysed, 274 (**32%**) were cited as having *excessive speed* for the road and conditions as a contributory factor to the collision. This may not have been the sole cause of the collision but contributed in either full or part to the final outcome. Of this number **19%** cited excessive speed as the sole contributory factor. Therefore, for the purpose of gaining a better insight into the use of excessive speed on our roads, 274 collisions were analysed where there was clear identification of excessive speed on its own or in

- Overall, 12% of the collisions where excessive speed was cited as the contributory factor occurred in a 50 km zone.
- The weather was recorded as dry at the time of the majority (86%) of excessive speed related collisions.
- Over half of the collisions occurred when it was dark (56%).

Profile of Culpable Driver

- The majority (91%) of the 274 drivers were male.
- Half of the drivers (both male and female) were aged between 16 to 24 years.
- Over half (58%) of the drivers involved in a single vehicle collision were aged between 16 and 24 years and a further quarter (26%) were aged between 25 and 34 years.

Pre-Crash Behaviour

- The primary purpose for the trip or journey when the speed related collision occurred was social (84%) occurring between the hours of 10pm and 4 am.
- A third (32%) had no record of insurance at the time of the collision.
- Two thirds (68%) of the drivers had a record of a license at the time of the collision
- One hundred and forty (75%) held a full licence, 31 (17%) were on a Learner Permit and 12 (7%) were driving while disqualified.
- Of the 31 on a Learner Permit, it was recorded that 19 were on a first permit (six unaccompanied), four were on a second permit (one unaccompanied) and one was recorded as being expired. Eleven held their license permit for less than six months at the time of the collision.
- Five of the drivers with a full licence had a previous record of endorsements or penalty points for speeding or had been previously

disqualified. Four of those driving while disqualified had a known history of disqualification.

- Over a third of the vehicles driven by the culpable driver in the 274 collisions where excessive speed was a factor were aged between 10-14 years.
- Twenty nine (11%) of the 274 vehicles ranged from being defective to poor/fair un-roadworthy condition. Specifically, 11 (4%) were driving a dangerously defective vehicle. A further 21 (8%) were rated as mechanically serviceable apart from the condition of the tyres.
- The primary manoeuvre being performed at the time of collision is coded as driving forward (82%).
- The main action indicated for the culpable driver was loss of control of the vehicle (70%), 6% had failed to observe, 6% were performing an improper overtaking manoeuvre, and 6% went to the wrong side of the road.
- The main other factors cited in the fatal speed related collisions involved alcohol over the prevailing legal limit, a combination of illicit or prescription drugs, dangerous behaviour, driving defective vehicles, being distracted and inexperience where the driver was at the very early stages of their driving career.

Section 1.

Introduction

Section 1.1 Background to Report

Over the time period 2008 to 2012, 983 fatal collisions occurred on Irish roads claiming the lives of 1,077 people. The current report is an examination of the circumstances and factors contributing to these collisions. By better understanding how and why these collisions have occurred, the RSA can focus their interventions on the main contributing factors to fatal collisions in Ireland and reduce the number of people being killed on the roads.

A remit of the RSA is to report on road collisions occurring on Irish roads; as part of this work data is collated and analysed using the road collision database. This database is created using a form called a C(T)68 forwarded to the RSA from An Garda Síochána. The information provided in this form is based on preliminary information collected at the scene of a collision and thus does not constitute the findings of the final investigation. The RSA issues reports regularly using the data contained in this database as the best available representation of fatal and injury collisions.

This report is based on an analysis of the completed investigation file where the full circumstances of the collisions are available.

Access was granted by An Garda Síochána to the completed Investigation File produced for each collision. The file contains two main reports:

1. An Garda Síochána Investigation Report
2. Forensic Collision Investigation Report (FCI)

The RSA collected data in the Garda National Traffic Bureau. Of the 983 fatal collisions which occurred in the time period under investigation, approximately 12% (116) were unavailable for analysis for reasons which included a continuing or ongoing investigation and the file held by An Garda Síochána Ombudsman Commission (GSOC). The final number of collisions analysed was 867.

An Garda Síochána Investigation Report:

This report is completed by the main investigating officer who attended the collision and provides a detailed breakdown of the collision scene, vehicles involved, details of each driver, passengers, testing for alcohol, the number and type of casualty and all relevant circumstances to the collision. Included in this report are all witness statements provided to An Garda Síochána around the factors observed prior to and post collision by those involved in the collision and those who may have witnessed the collision. Autopsy reports, results of alcohol tests, the Forensic Collision Investigation Report and the decision by the Coroner are also included. This file allows the investigating officer to determine the circumstances prior to the collision, the party whose actions were primarily responsible for causing the collision and the direction or request to the Director of Public Prosecutions for a prosecution of those involved.

Forensic Collision Investigation Report (FCI):

All fatal collisions are investigated by the regional Forensic Collision Investigation unit of An Garda Síochána. As part of this investigation a complete service check is performed on all vehicles involved to determine what or if any specific vehicle factors were present (e.g. faulty tyres, brakes, lights) which may have contributed either in full or part to the crash (PSV report). The PSV report is completed by Public Service Vehicle Inspector (a member of An Garda Síochána). This information is used in conjunction with a detailed forensic examination of the scene taking into account weather, lighting and road conditions or layout and the assessment of speed where possible. The result is an FCI Report containing information on each of the vehicles involved and a detailed description of how the crash occurred. This enables the decision to be made as to whether a specific party or vehicle is either culpable or part culpable for the collision.

Section 1.2 Number of Fatal Collisions and People Killed Under Review

This report will examine 867 of the fatal collisions which occurred from 2008 to 2012 (Table 1.1). These include:

Table 1.1 No of Collision Files Examined

	N
1 Vehicle	333
2 + Vehicle	319
Cyclist	37
Pedestrian	178
TOTAL	867

858 of the 867 collisions involved at least one driver. Of the other nine, seven were cyclist only and two 'pony and trap' only collisions. Details of 1,177 drivers (1,081 four wheeled motor vehicle and 96 motorcycle drivers) were available for analysis.

The number of people killed or injured for which details were available for analysis are as follows in Table 1.2:

Table 1.2 Killed and Injured Figures in Collisions Analysed

	Killed	Serious Injury	Minor Injury
Driver Motor Vehicle	450	69	154
Driver Motorcycle	84	2	6
Passenger	196	94	143
Pedestrian	180	-	-
Cyclist	37	-	-
TOTAL	947	165	303

Section 1.3 Person Deemed Culpable for the Collision

For each collision where possible or appropriate, the Investigation report produced by An Garda Síochána determines the party whose actions were primarily responsible for causing the collision. This results from a detailed analysis of all factors such as witness statements on the behaviours and actions of the driver, pedestrian or cyclist, and alcohol toxicology results. It also includes conclusions drawn from the FCI report on precisely how the collision occurred and which vehicle was being driven by the person deemed to be responsible or part responsible for causing the collision. In some instances no responsibility by the driver, cyclist or pedestrian is determined due to the specific circumstances of the collision. This may be the case in hit and run collisions or those with unforeseen circumstances, such as an animal or unexpected object on the road. However, for the most part one party is deemed by their actions to have caused the fatal collision.

It is important that the details of those parties whose actions or behaviour caused the collision be highlighted as these are the behaviours that will need to be addressed through road safety interventions to modify such behaviour. Throughout the report there will be a section detailing the profile and actions of those who were deemed to be responsible or part responsible for the collision. For the remainder of the report they will be referred to as the culpable party. Of the 1,177 drivers of motorised vehicles where details are available, 705 were deemed to be culpable or part culpable for the collision. Three drivers were deemed not culpable due to unforeseen circumstances such as the presence of unexpected animals or objects on the road. A further three collisions were hit and run so no culpability could be determined.

Section 1.4 Collisions Analysed

Overall, in the 867 collisions, 298 collisions were classified as per the investigation report as having speed as a contributory factor. This represents 34% of all collisions analysed for the time period. However, for the purpose of this report 24 collisions were excluded from the final analysis. These collisions may have had inappropriate speed for the conditions indicated, however, no evidence of excessive speed was detected.

In the majority of cases these were single vehicle collisions. Other factors were also present such as lack of familiarity with the road, driver inexperience, inadequate signage, ice, sharp unexpected bends or the presence of gravel. These factors coupled with inappropriate speed resulted in an inability to control the vehicle, but the calculated speeds were not deemed excessive.

Therefore, for the purpose of gaining a better insight into the use of excessive speed on our roads, 274 collisions were analysed where there was clear identification of excessive speed on its own or in combination with other poor road use behaviours.

Of the 867 collisions analysed, 274 (**32%**) were cited as having *excessive speed* for the road and conditions as a contributory factor to the collision. This may not have been the sole cause of the collision but contributed in either full or part to the final outcome. Of this number **19%** cited excessive speed as the sole contributory factor. For the remainder of this report, when discussing the 274 collisions, the term **speed always refers to Excessive Speed**.

Section 2.

Collision Type, When and Where

The following section examines the profile of the 274 collisions such as when and where it occurred and the type of vehicle driven by the culpable party.

Section 2.1 Type of Collision

Over half (55.8%) of the collisions where speed was cited as a contributory factor involved a single vehicle only (Table 1).

Table 1. Type of Collision

	N	%
Single Vehicle	153	55.8
Two Vehicle	107	39.1
Pedestrian	12	4.4
Cyclist	2	0.7
TOTAL	274	100.0

Of the 274 collisions where speed was a contributory factor, two thirds (76%) of the culpable drivers were driving a private car, almost a fifth (17%) were driving a motorcycle and the remaining 7% were driving a van or HGV (Table 2).

Table 2. Type of Vehicle Driven by Culpable Party in Collision Where Speed was a Factor

	N	%
Private Car	207	75.5
Motorcycle	46	16.8
HGV	4	1.5
Van	16	5.8
PSV Bus	1	0.4
TOTAL	274	100.0

Table 3 sets out the type of collision by vehicle type. The majority of single vehicle collisions involved private car (82%).

Table 3. Type of Collision by Vehicle Type

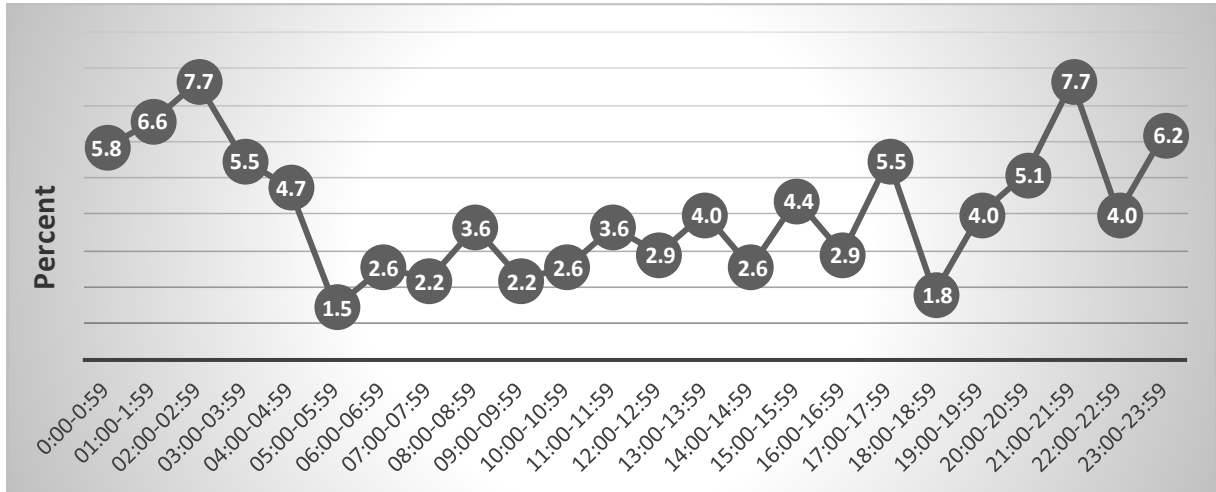
	Single Vehicle		Two Vehicle		Cyclist		Pedestrian	
	N	%	N	%	N	%	N	%
Private Car	126	82.4	68	63.6	1	50.0	12	100.0
Motorcycle	17	11.1	28	26.2	1	50.0	0	0.0
HGV	2	1.3	2	1.9	0	0.0	0	0.0
Van	8	5.2	8	7.5	0	0.0	0	0.0
PSV Bus	0	0.0	1	0.9	0	0.0	0	0.0
TOTAL	153	100.0	107	100.0	2	100.0	12	100.0

Section 2.2. Time, Day, Week and Month of Collision

Forty three percent of the collisions where speed was a factor occurred between 9pm and 4 am with a small dip between 10pm and 11 pm. The two

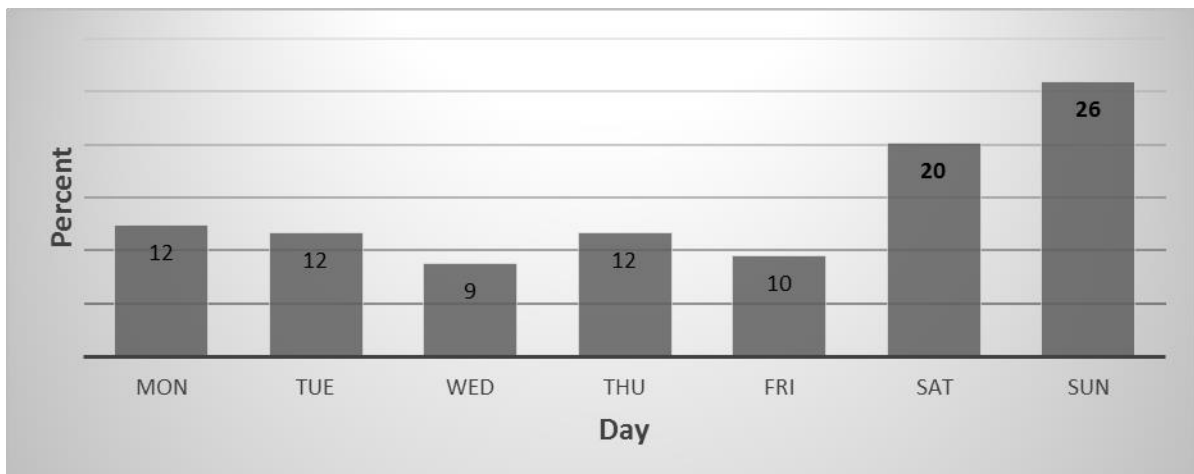
main peaks occurred between 9 and 10 pm and 2 to 3 am (Figure 1). It should be noted there was a peak of 5.5% at rush hour (5-6pm).

Figure 1. Time of Collisions where Speed was a Factor



The majority of collisions (46%) where speed was a factor occurred on a Saturday and Sunday (Figure 2).

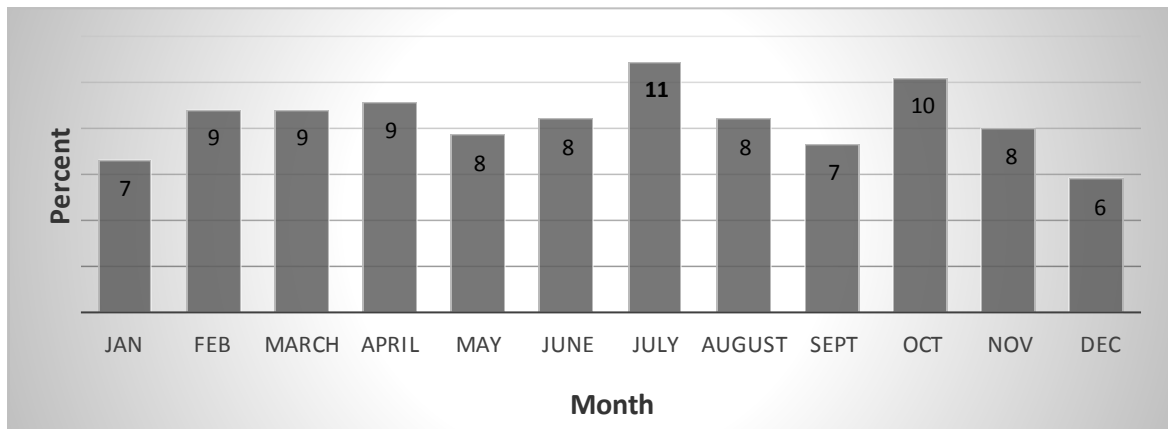
Figure 2. Day of Week of Collisions where Speed was a Factor



The majority of collisions on Saturdays and Sundays occurred in the early hours of the morning. This pattern extends from 10pm on the Friday night to the early hours of Monday morning and would correspond with weekend socialising hours. The time of day by day of week can be found in Appendix 1.

Figure 3 sets out the month of collisions analysed where speed was indicated as a factor. There was a slight peak in July (11%) followed by October (10%).

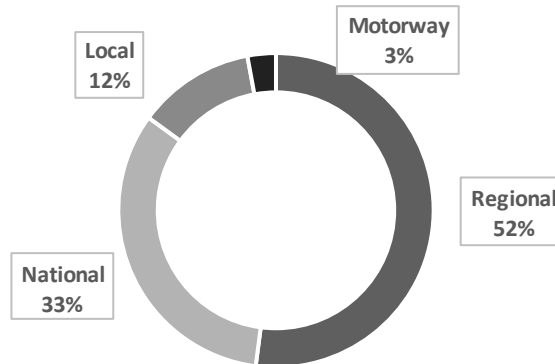
Figure 3. Month of Collision where Speed was a Factor



Section 2.3 County of Collision

The top three counties where most collisions had speed cited as a factor were Donegal (8.4%), Cork (8%) and Wexford (8%). However, counties Cavan and Galway has similar levels. Of the 274 collisions which were speed related 107 were recorded in these five counties. A table of the county breakdown can be found in Appendix 1.

Figure 5. Collision by Road Type



Over half of the collisions occurred in a zone with an 80 km speed limit which reflects the Regional road location. Table 4 sets out the road type by speed limit. Eleven percent of the collisions on a National route and 8% of the collisions on a Regional route occurred within a 60 km or less speed zone. This indicates the collision occurred in an urban setting where the driver was either leaving or entering a town village or reduced speed location. Overall, 12% of the collisions where speed was cited as the contributory factor occurred in a 50 km zone.

Table 4. Road Type by Speed Limit at Collision Site.

Speed Limit	Local		Motorway		National		Regional		Total	
	N	%	N	%	N	%	N	%	N	%
100	0	0.0	0	0	80	87.9	0	0.0	80	29.2
120	0	0.0	7	87.5	0	0.0	0	0.0	7	2.6
80	17	51.5	0	0	1	1.1	131	92.3	149	54.4
60	2	6.1	0	0	0	0.0	2	1.4	4	1.5
50	13	39.4	1	12.5	10	11.0	8	5.6	32	11.7
30	1	3.0	0	0	0	0.0	1	0.7	2	0.7
TOTAL	33	100.0	8	100	91	100.0	142	100.0	274	100.

Route Type by County

Regional: The counties where most of the 142 speed related collisions which occurred on a regional route were Wexford (14), Galway (14), Donegal (12), Tipperary (11) and Cork (10).

National: The counties where most of the 91 speed related collisions which occurred on a national route were Donegal (11), Cork (11), Cavan (7) and Kerry (7).

Local: The majority of the 33 speed related collisions on a local route occurred in Dublin (12). Table 4 in Appendix 1 sets out the Route Type by County.

Over half of the single vehicle collisions (57%) occurred in an 80 km speed zone compared to a quarter (25%) in a 100 km zone (Table 5). However, 13% occurred in a 50km speed zone. Both of the cyclist collisions occurred in

an 80 km zone, while half of the pedestrians were on an 80 km stretch of road and a third were on a 100km road.

Table 5. Type of Collision by Speed Limit

	Single Vehicle		Two Vehicle		Cyclist		Pedestrian	
	N	%	N	%	N	%	N	%
100	38	24.8	38	35.5	0	0.0	4	33.3
120	5	3.3	2	1.9	0	0.0	0	0.0
80	87	56.9	54	50.5	2	100.0	6	50.0
60	2	1.3	2	1.9	0	0.0	0	0.0
50	20	13.1	10	9.3	0	0.0	2	16.7
30	1	0.7	1	0.9	0	0.0	0	0.0
TOTAL	153	100.0	107	100.0	2	100.0	12	100.0

Section 2.5 Weather and Light Conditions

The weather was recorded as dry at the time of the majority (86%) of speed related collisions (Figure.6). However, while the weather was dry at the time of these 194 collisions, the road surface was recorded as being wet at the time of 38 (20%) indicating a recent rainfall. Overall, a quarter of collisions (27%) occurred on a wet surface (Table 6).

Table 6. Road Surface at Time of Collision

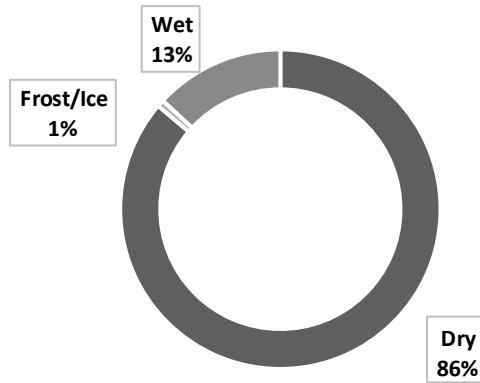
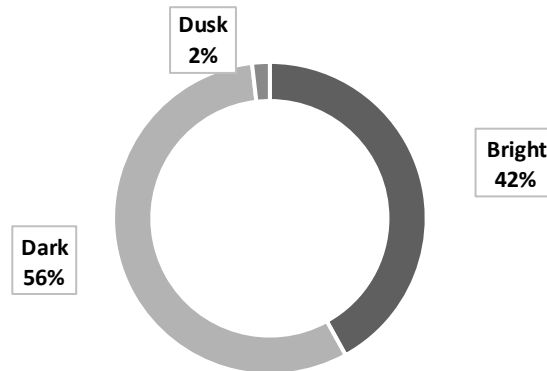


Table 6. Road Surface at Time of Collision

	N	%
Dry	195	71.2
Wet	74	27.0
Frost/Ice	4	1.5
NR	1	0.4
TOTAL	274	100.0

Figure 7 illustrates over half of the collisions occurred when it was dark (56%). This relates the fact that 43% of speed related collisions occurred between 9 pm and 4 am.

Figure 7. Light Conditions at Time of Collision



The presence of street lights was indicated at 15% of the 153 collisions which occurred in the dark.

Section 2.6 Road Conditions

Of the 274 speed related collisions, the condition of the road was noted at 14 sites (no road conditions were indicated at 260 (95%) of the collision sites). In five collisions the issues related to bad bends, in another five the issue related to the road or junction layout. In three cases there was a reference to road works (cones and gravel) and at one site the surface condition was mentioned.

Section 3.

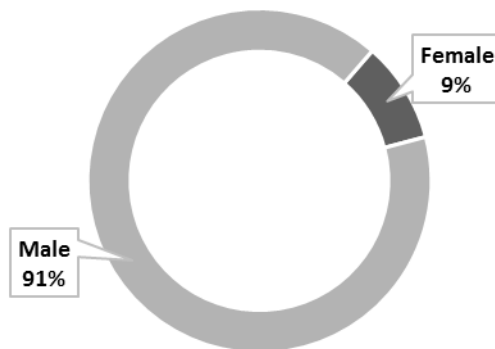
Profile of Culpable Driver

This section outlines the profile of the driver deemed culpable for the collision. It was their actions prior to and during the collision which was deemed to have been most at fault. Therefore there will be 1 driver per each of the 274 fatal collisions analysed discussed.

Section 3.1 Gender and Age of Driver

The majority (91%) of the 274 drivers were male (Figure 8). Half of the drivers (both male and female) were aged between 16 to 24 years (Table 7).

Figure 8. Gender of Culpable Driver



The median age of all drivers was 25 years ranging from 16 to 85 years. The median age of females was 25 ranging from 16 to 67 years while the median age of males was 25 ranging from 16 to 85 years.

Table 7. Driver Age by Gender

	Female		Male		Total	
	N	%	N	%	N	%
16- 24	13	50.0	123	49.6	136	49.6
25- 34	5	19.2	79	31.9	84	30.7
35- 49	5	19.2	36	14.5	41	15.0
50- 64	0	0.0	7	2.8	7	2.6
65+	3	11.5	1	0.4	4	1.5
NR	0	0.0	2	0.8	2	0.7
TOTAL	26	100	248	100.0	274	100.0

Over half of those driving a private car (57%) and 44% of those driving vans were aged 16 to 24 years while half of the motorcyclists were 25 to 34 years (Table 8).

Table 8. Driver Age by Vehicle Type

	Private Car		Motorcycle		Van		HGV	
	N	%	N	%	N	%	N	%
16-24	118	57.0	11	23.9	7	43.8	0	0
25-34	54	26.1	23	50.0	5	31.3	2	50
35-49	24	11.6	11	23.9	3	18.8	2	50
50-64	5	2.4	1	2.2	1	6.3	0	0
65+	4	1.9	0	0.0	0	0.0	0	0
NR	2	1.0	0	0.0	0	0.0	0	0
TOTAL	207	100.0	46	100.0	16	100.0	4	100

Over half (58%) of the drivers involved in a single vehicle collision were aged between 16 and 24 years and a further quarter (26%) were aged between 25 and 34 years. There was a fairly even distribution of drivers aged between 16 - 24 years and 25 - 34 years (36% each) involved in two or more vehicle collisions (Table 9).

Table 9. Driver Age by Type of Collision

	SINGLE VEHICLE		TWO VEHICLE		CYCLIST		PEDESTRIAN	
	N	%	N	%	N	%	N	%
16-24	90	58.8	39	36.4	1	50	6	50
25-34	39	25.5	38	35.5	1	50	6	50
35-49	22	14.4	19	17.8	0	0	0	0
50-64	1	0.7	6	5.6	0	0	0	0
65+	1	0.7	3	2.8	0	0	0	0
NR	0	0.0	2	1.9	0	0	0	0
TOTAL	153	100.0	107	100.0	2	100	12	100

Section 4.

Pre-Crash Behaviour

This section will examine the behaviours of the culpable party prior to the fatal impact, where known. This will provide a deeper understanding of why these collisions may have occurred.

Section 4.1 Purpose of Trip for Culpable Driver

The primary purpose for the trip or journey when the speed related collision occurred was social (84%). This would reflect the majority of these collisions occurring between the hours of 10pm and 4 am (Table 10).

Table 10. Driver Purpose of Trip

	N	%
Social	231	84.3
Commuting To/From Work	13	4.7
For Work	10	3.6
To/From School	2	0.7
Unknown	18	6.6
TOTAL	274	100.0

Section 4.2 Culpable Driver Insurance

Where recorded, half (51%) of the drivers had insurance at the time of the collision (Table 11). However, a third (32%) had no record of insurance at the time of the collision.

Table 11. Driver Insurance

	N	%
Yes	139	50.7
No	87	31.8
NR	48	17.5
TOTAL	274	100.0

Section 4.3 Driver Licence Details Culpable Driver

Two thirds (68%) of the drivers had a record of a licence at the time of the collision (Table 12).

Table 12. Driver Licence Record

	N	%
Yes	186	67.9
No	39	14.2
NR	49	17.9
TOTAL	274	100.0

Table 13. Licence Held by Vehicle

	Yes	No	Nr	Total
Private Car	140	33	34	207
Motorcycle	28	5	13	46
Van	13	1	2	16
HGV	4	0	0	4
PSV Bus	1	0	0	1
TOTAL	186	39	49	274

Table 14. Licence Status by Vehicle

	Full		Learner Permit		Disqualified	
	N	%	N	%	N	%
Private Car	101	72.1	28	90.3	8	66.7
Motorcycle	24	17.1	1	3.2	3	25.0
Van	10	7.1	2	6.5	1	8.3
HGV	4	2.9	0	0.0	0	0.0
PSV Bus	1	0.7	0	0.0	0	0.0
TOTAL	140	100.0	31	100.0	12	100.0

*Type of Licence not recorded for 3 private car drivers

Of the 186 with a record of a licence, 140 (75%) held a full licence, 31 (17%) were on a Learner Permit and 12 (7%) were driving while disqualified.

Disqualified: Of the 12 drivers who were disqualified, 8 were driving a private car, 3 were driving a motorcycle and 1 was driving a van at the time of the collision (Table 15).

Of the 137 private car drivers with a record of a licence, 8 (6%) were driving while disqualified. However, 3 of the 28 (11%) motorcyclists with a record of a licence, travelling at excessive speed for the road and conditions were disqualified at the time of the collision (Table 14).

A record of the length of time a Learner Permit was held was available for 13 private cars, 1 van and 1 motorcyclist. Eleven of these Learner drivers held their licence for less than 6 months (Table15).

Table 15. Time Learner Permit Held

Time	N
<1 Month	1
1-2 Months	5
5-6 Months	5
6-12 Months	2
13-15 Months	2
TOTAL	15

In some of the files there was additional information available on specific details of the licence such as previous history etc. Of the 31 on a Learner Permit, it was recorded that 19 were on a first permit (6 unaccompanied), 4 were on a second permit (1 unaccompanied) and 1 was recorded as being expired (Appendix - Table 5).

Five of the 140 drivers recorded as having a full licence had a previous history of endorsements or penalty points for speeding or had been previously disqualified. One of the motorcyclists had a full driving licence, however, it did not cover the category of vehicle being driven. Of the 12 who were driving while disqualified, it was known that 4 also had a previous history of disqualification.

Section 4.4 Age and Condition of the Vehicle Driven by Culpable Driver

Over a third of the vehicles driven by the culpable driver in the 274 collisions where speed was a factor were aged between 10-14 years. Almost a quarter (24%) were aged between 5 and 9 years. When combined, 59% of the vehicles were aged between 5 and 14 years (Table 16).

Table 16. Age of Vehicle

	N	%
<1	3	1.1
1-4	33	12.0
5-9	65	23.7
10-14	97	35.4
15-19	35	12.8
20-24	7	2.6
NR	34	12.4
TOTAL	274	100.0

PSV reports were analysed for the condition or roadworthiness of the vehicle. Overall, two thirds (76%) were deemed to be in a good roadworthy condition. However, 29 (11%) ranged from being defective to poor/fair condition (Table 17). Specifically, 11 (4%) were driving a dangerously defective vehicle. A further 21 (8%) were rated as mechanically serviceable apart from the condition of the tyres. These 21 vehicles had their tyres cited as a possible contributory factor to the collision. Therefore, while these vehicles were rated as *mechanically serviceable*, the condition of the tyres were defective due to excessive wear or over inflation.

Table 17. Condition of Vehicle as per PSV Report

	N	%
Serviceable/Roadworthy Condition	209	76.3
Serviceable/Mechanically Serviceable Apart From Tyres	21	7.7
Dangerously Defective	11	4.0
Not Road Worthy	9	3.3
Defective	4	1.5
Poor /Fair Pre-Crash Condition	3	1.1
Poor Pre-Crash Condition	2	0.7
Too Damaged	2	0.7
NR	13	4.7
TOTAL	274	100.0

Vehicle Factors as Contributory to Collision

Thirty nine (14%) of the 274 collisions where speed was cited as a factor also had defective or worn tyres as an additional underlying contributory factor (Table 18).

Table 18. Vehicle Factors Present

	N	%
Tyres	39	14.2
Brakes	11	4.0
Other	7	2.6
Suspension	2	0.7
None	215	78.5
TOTAL	274	100.0

Table 20. Culpable Driver Main Action Taken

	N	%
Lost Control	193	70.4
Failed To Observe	17	6.2
Improper Overtaking	15	5.5
Went To Wrong Side Of Road	15	5.5
Exceeded Safe Speed	10	3.6
Failed To Stop Or Yield	7	2.6
Other	7	2.6
Taking Avoidance Action	5	1.8
Drove Through Traffic Signal	1	0.4
NR	4	1.5
TOTAL	274	100.0

Three of the drivers who were known to have lost control were known to have aquaplaned, a further 40 lost control on a right bend and 29 on a left bend.

Of the 193 collisions where loss of control was cited, the majority (136) occurred in single vehicle collisions. This represents 89% of all single vehicle collisions.

Section 4.6 All Contributory Factors

Speed Only Collisions:

Fifty two (19%) of the 274 collisions had only excessive speed cited as the main cause of the collision. A further 11 had speed and a vehicle factor cited (6 of which were worn tyres).

Of these 52 collisions, 18 involved a single vehicle, 33 involved two vehicles and 1 involved a pedestrian. The largest proportion (60%) occurred on a

regional road and a quarter (25%) on a national road (Table 21). It is interesting to note 8% occurred in a 50 km speed limit zone.

Table 21. Speed Limit in Collision Where Speed Only cited

	N	%
120	2	3.8
100	13	25.0
80	31	59.6
60	2	3.8
50	4	7.7
TOTAL	52	100.0

Loss of control was the main action cited (60%). The majority occurred when it was bright (69%) and dry (77%) on a dry road surface (64%). However, the road was wet at 35% of the collision sites.

Collisions with Speed and Other Behavioural Contributory Factors:

In the majority of collisions more than one contributory factor was cited which goes to underline the complex nature of these incidents. Of the 274 excessive speed collisions 222 (81%) made reference to more than one factor. The additional factors may or may not have been attributed to the driver who was found to be speeding (Table 22).

Table 22. Combination of Pre Crash Behaviours in Fatal Collision

	N	%
One Only	52	19.0
Two	89	32.5
Three	82	29.9
Four	39	14.2
Five	12	4.4
TOTAL	274	100.0

Other main behavioural factors cited as contributory to the final outcome of the fatal collision include alcohol, drugs, dangerous behaviour, fatigue, distraction.

Section 4.7

Summary of Culpable Driver Pre Crash Behaviour Prior to Fatal Collision

Thirty two percent of all 867 fatal collisions which were analysed for the period 2008 to 2012 cited speed as a contributory factor to the collision.

Overall, 274 drivers (including motorcyclists) were deemed to have caused the fatal collision in full or part by their actions including speed for the road and conditions were cited. The main collision type involved a single vehicle (56%). The largest group deemed responsible were males aged 16 -24 years in private cars, vans, and motorcycles.

The counties with the most speed related collisions included Donegal, Cork and Wexford. They occurred for the majority on Regional roads in an 80 km speed zone.

These 274 drivers were on the road primarily for social purposes (84%) between 10pm and 4 am at the weekend after weekend socialising. A third of these drivers had no record of insurance and 14% had no record of a licence. Where a licence was identified, 17% were on a Learners Permit and 7% were disqualified.

These drivers were driving vehicles which were, for the most part, aged between 10-14 years (35%). The condition of these vehicles were classed as unroadworthy or defective for 11% of the collisions and importantly 4% were rated as dangerously defective. An additional 8% percent were driving vehicles deemed serviceable apart from defective tyres.

Fourteen percent of the 274 speed related collisions had defective tyres as an underlying contributory factor. Many of these drivers have been shown to have been driving at excessive speeds in combination with performing dangerous road tricks and road racing. All of which will affect the wear on tyres.

The primary manoeuvre and subsequent action taken were travelling forward (82%) and loss of control (70%). The majority of collisions where loss of control was cited involved a single vehicle (89%).

A closer examination reveals that 19% of the 274 fatal collisions indicated speed as the *sole* contributory factor. These collisions again occurred

primarily on regional (60%) and National roads (25%). However, 10% were travelling in a 50km speed zone (one driver was estimated to have been travelling at speeds of 118 km in a 50 km speed zone at point of impact). These collisions occurred in dry weather for the most part, although the road surface was wet at 35% of the collision sites. This may indicate the driver did not modify the excessive speed appropriate to the conditions.

The main other factors cited in the fatal speed related collisions involved alcohol over the prevailing legal limit, a combination of illicit or prescription drugs, dangerous behaviour, driving defective vehicles, being distracted and inexperience where the driver was at the very early stages of their driving career.

Section 5.

Number of People Killed or Injured in Speed Related Collision

In total, 322 people died as a result of a collision where excessive speed was cited as a main contributory factor. Of these, 207 were drivers (including motorcyclists), 100 passengers, 2 cyclists and 13 pedestrians were also killed (Table 23).

In total 74 people were seriously injured and 120 suffered minor injury. While excessive speed was a contributory factor, this may not have been the sole cause of the collision but it did contribute in full or part in combination with other factors such as alcohol, fatigue, vehicle factors etc.

However, in the 52 collisions where excessive speed was the sole factor indicated, 54 people were killed (48 drivers, 5 passengers and 1 pedestrian). A further nine people were seriously injured (4 drivers, 5 passengers).

Table 23. Number of People Killed or Injured in Collision where Speed was a Factor

	Fatal	Serious	Minor
Driver	158	25	61
Motorcyclist	49	4	
Passenger	100	45	59
Cyclist	2	-	-
Pedestrian*	13	-	-
TOTAL	322	74	120

*There were two pedestrians killed in one collision

In total there were 381 drivers (including motorcyclists) involved in the 274 collisions. Of these 207 (54%) were killed, of which 181 were deemed the culpable party in full or part.

One hundred and nine of the drivers killed were in a single vehicle collision. More passengers were killed in a single vehicle collision than a two vehicle collision (63 of 100 passengers killed).

Four of the 13 pedestrians killed were deemed to have contributed to the final outcome through their own actions in combination with the speed of the driver. Only 1 of the 13 pedestrians was wearing high visibility clothing at the time of the collision even though 9 occurred during the hours of darkness.

Appendix 1

Table 1. Time of Day by Day of Week

	SUN	MON	TUE	WED	THU	FRI	SAT	TOTAL
	N	N	N	N	N	N	N	N
0:00-0:59	5	2	1	3	2	1	2	16
01:00-1:59	6	2	1	2	1	5	1	18
02:00-02:59	8	1	3	2	2	1	4	21
03:00-03:59	6	2	0	0	2	1	4	15
04:00-04:59	3	1	3	0	1	0	5	13
05:00-05:59	1	1	1	0	0	0	1	4
06:00-06:59	2	1	0	1	1	0	2	7
07:00-07:59	0	1	2	2	1	0	0	6
08:00-08:59	1	2	2	0	2	2	1	10
09:00-09:59	1	2	0	0	0	0	3	6
10:00-10:59	5	0	0	0	0	0	2	7
11:00-11:59	1	1	0	1	2	2	3	10
12:00-12:59	3	0	1	0	1	2	1	8
13:00-13:59	4	2	0	0	2	1	2	11
14:00-14:59	0	1	2	0	1	1	2	7
15:00-15:59	4	1	2	0	3	0	2	12
16:00-16:59	1	1	1	0	4	0	1	8
17:00-17:59	5	3	3	1	2	1	0	15
18:00-18:59	1	1	0	0	0	0	3	5
19:00-19:59	1	6	0	2	1	0	1	11
20:00-20:59	3	1	1	2	1	1	5	14

21:00-21:59	1	1	4	4	3	2	6	21
22:00-22:59	4	0	2	2	0	3	0	11
23:00-23:59	4	1	3	2	0	3	4	17
NR	1	0	0	0	0	0	0	1
TOTAL	71	34	32	24	32	26	55	274

Table 2. County Breakdown

	N	%
Donegal	23	8.4
Cork	22	8.0
Wexford	22	8.0
Cavan	20	7.3
Galway	20	7.3
Dublin	18	6.6
Tipperary	17	6.2
Mayo	16	5.8
Kildare	15	5.5
Kerry	14	5.1
Meath	11	4.0
Laois	10	3.6
Limerick	9	3.3
Westmeath	7	2.6
Carlow	6	2.2
Monaghan	6	2.2
Louth	5	1.8
Offaly	5	1.8
Sligo	5	1.8
Waterford	5	1.8
Kilkenny	4	1.5
Leitrim	4	1.5
Wicklow	4	1.5
Clare	2	0.7

Longford	2	0.7
Roscommon	2	0.7
TOTAL	274	100.0

Table 3. County by Type of Collision

	SINGLE VEHICLE	TWO VEHICLE	CYCLIST	PEDESTRIAN	TOTAL
	N	N	N	N	N
Donegal	9	12	0	2	23
Cork*	0	0	11	10	21
Wexford	13	6	0	3	22
Cavan	13	5	0	2	20
Galway	15	4	0	1	20
Dublin	11	6	0	1	18
Tipperary	8	8	1	0	17
Mayo	12	4	0	0	16
Kildare	5	9	1	0	15
Kerry	7	6	0	1	14
Meath	8	3	0	0	11
Laois	5	4	0	1	10
Limerick	5	4	0	0	9
Westmeath	5	2	0	0	7
Carlow	0	6	0	0	6
Monaghan	3	2	0	1	6
Louth	3	2	0	0	5
Offaly	3	2	0	0	5
Sligo	1	4	0	0	5
Waterford	3	2	0	0	5

Kilkenny	2	2	0	0	4
Leitrim	2	2	0	0	4
Wicklow	3	1	0	0	4
Clare	1	1	0	0	2
Longford	1	1	0	0	2
Roscommon	2	0	0	0	2
TOTAL	153	107	2	12	273

*1 road in Cork not classified

Table 4. County by Road Type

	Local	Motorway	National	Regional	Total
Donegal	0	0	11	12	23
Cork*	0	0	11	10	21
Wexford	3	1	4	14	22
Cavan	4	0	7	9	20
Galway	2	0	4	14	20
Dublin	12	2	0	4	18
Tipperary	0	0	6	11	17
Mayo	3	0	6	7	16
Kildare	3	2	2	8	15
Kerry	1	0	7	6	14
Meath	0	1	5	5	11
Laois	1	1	5	3	10
Limerick	0	0	5	4	9
Westmeath	1	0	3	3	7
Carlow	0	0	1	5	6
Monaghan	1	0	2	3	6
Louth	0	1	0	4	5
Offaly	1	0	0	4	5
Sligo	0	0	3	2	5
Waterford	0	0	1	4	5
Kilkenny	0	0	3	1	4
Leitrim	1	0	0	3	4
Wicklow	0	0	2	2	4

Clare	0	0	1	1	2
Longford	0	0	0	2	2
Roscommon	0	0	1	1	2
Total	33	8	90	142	273

*1 road in Cork not classified

Table 5. Licence Details where available

Type	Detail Available	Time Held Months
Learner Permit	1st	<1
Learner Permit	1st	1-2
Learner Permit	1st	1-2
Learner Permit	1st	1-2
Learner Permit	1st	1-2
Learner Permit	1st	5-6
Learner Permit	1st	5-6
Learner Permit	1st	5-6
Learner Permit	1st	5-6
Learner Permit	1st	5-6
Learner Permit	1st	5-6
Learner Permit	1st	6-12
Learner Permit	1st	6-12
Learner Permit	1st	
Learner Permit	1st Unaccompanied	1-2
Learner Permit	1st Unaccompanied	13-15
Learner Permit	1st Unaccompanied	13-15
Learner Permit	1st Unaccompanied	
Learner Permit	1st Unaccompanied	
Learner Permit	1st Unaccompanied	
Learner Permit	2nd	
Learner Permit	2nd	
Learner Permit	2nd	

Learner Permit	2 nd Unaccompanied	
Learner Permit	Expired	
Full	Previous endorsements speeding and disqualified	
Full	Penalty points for Speeding	
Full	Previous disqualification	
Full	Previously disqualified	
Full	Did not have licence for motorcycle	
Full	2 live points / 2 expired points speeding	
Disqualified	Disqualified 3 times	
Disqualified	Disqualified for 2 years for drink driving	
Disqualified	Two periods of disqualification	
Disqualified	1 st Provisional	
Disqualified	Licence endorsed on 3 separate occasions	

Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre Road Safety Authority

Páirc Ghnó Ghleann na Muaidhe, Cnoc an tSabhaircín, Bóthar Bhaile Átha Cliath, Béal an Átha, Co. Mhaigh Eo
Moy Valley Business Park, Primrose Hill, Dublin Road, Ballina, Co. Mayo
local: 1890 50 60 80 fax: (096) 25 252 email: info@rsa.ie website: www.rsa.ie