Provisional Review of Road Crashes 2014

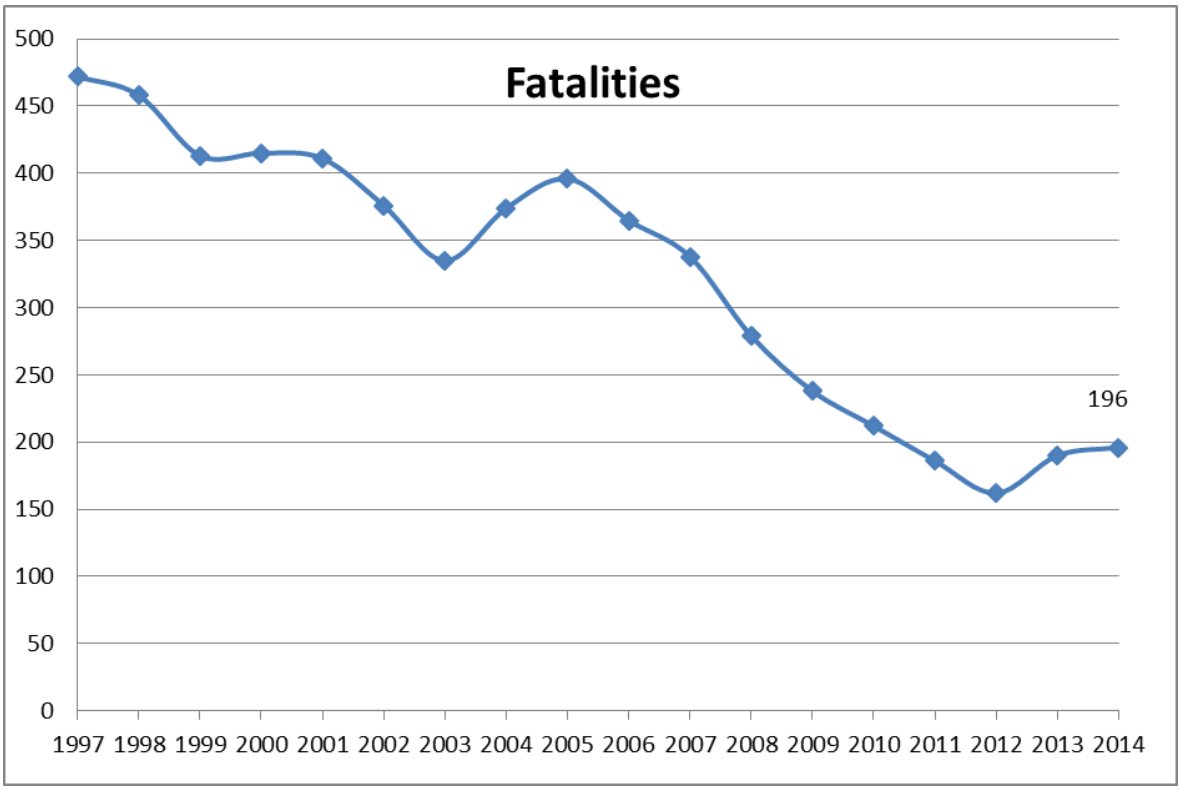
31st December 2014

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority

A review of 2014 fatal collision statistics December 31st 2014

The following report summarises the main trends that have emerged in 2014. This has been prepared by the Road Safety Authority following analysis of the fatality reports provided to the RSA by An Garda Síochána. Note that the information contained in this report is provisional and subject to change until the 2014 Collision Database is formally signed off by the RSA.

As of 31st December 2014, there have been 182 fatal collisions which have resulted in 196 fatalities on Irish roads. This represents 1 more collision, but 6 more deaths compared to the same period in 2013. 2013 saw an increase in year-on-year fatalities for the first time since 2005, exceeding the number of fatalities in 2012 (162), and the number of fatalities in 2011 (186). Ireland's road safety record has now deteriorated further in 2014; 196 deaths in 2014 represents a 3% increase on the number of fatalities in 2013.



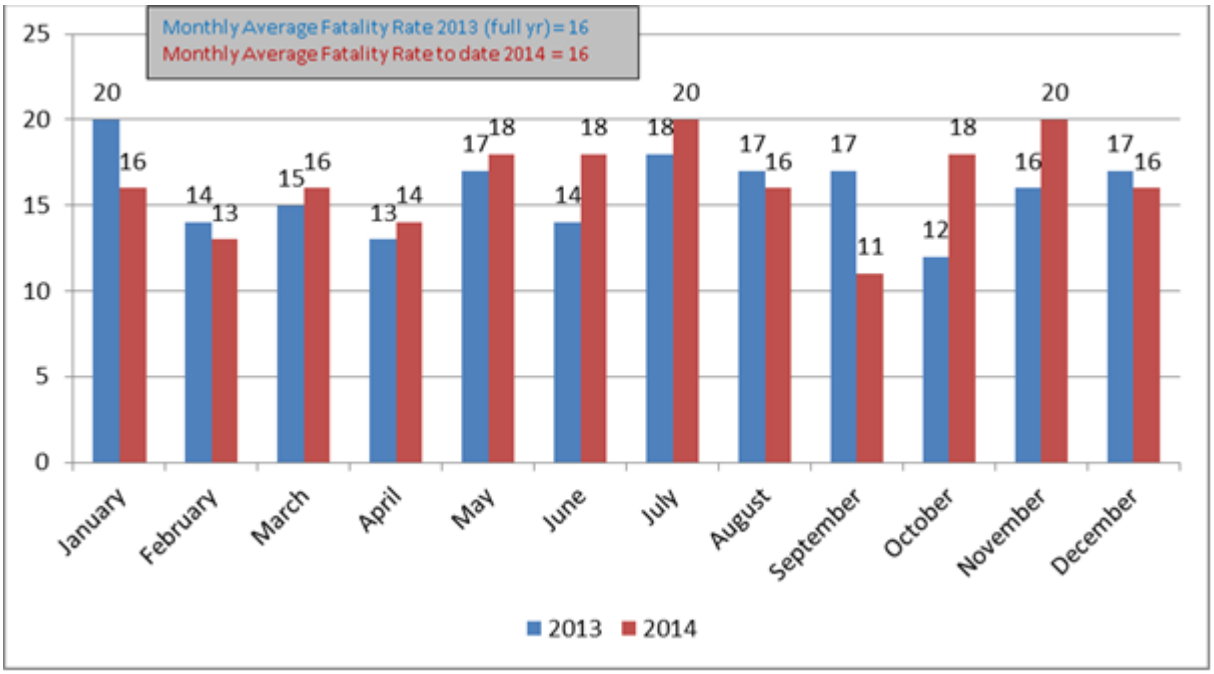
In this report, an analysis has been conducted of the following variables to help understand the increasing trend in fatality rates:

- Month of year
- Road user type
- Time of day
- Age group
- Day of week
- Region
- Seatbelt wearing rates

1. Month of Year

The table below shows the monthly trend in fatalities for 2013 and 2014. Note that these figures are provisional.

January and September 2014 were safer months than January and September 2013, while fatalities for almost all other months in 2014 (with the exceptions of February, August and December) were higher than in 2013. In particular, there were 4 more fatalities in June and November 2014 compared to the corresponding months in 2013, and 6 more fatalities in October 2014 compared to October 2013. Overall, the 2014 average monthly fatality rate is in line with the 2013 full year rate.



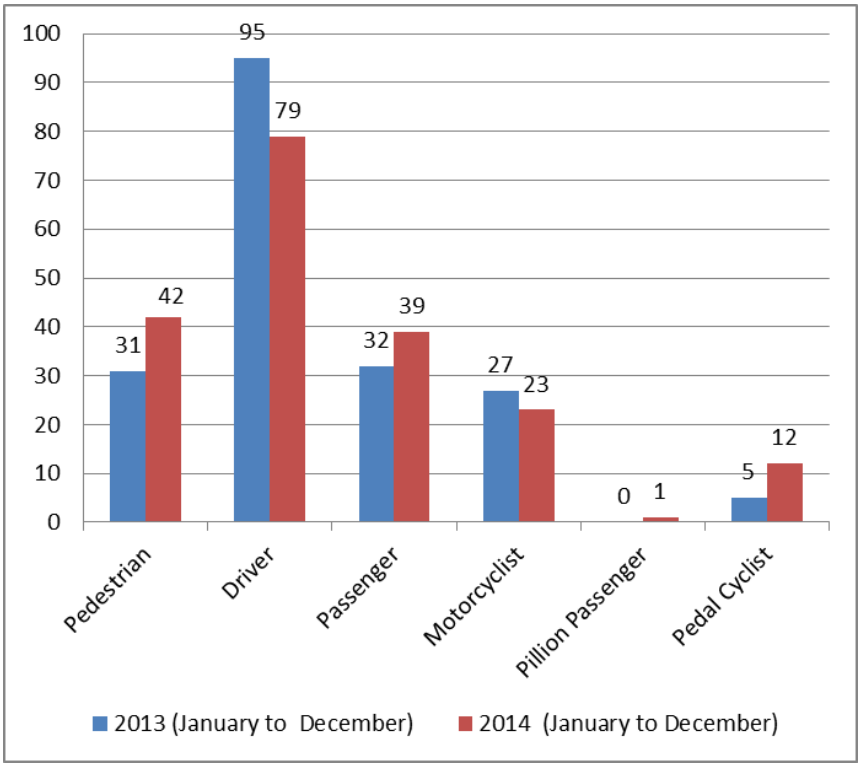
The three month period over the Summer **May, June, July** stands out as the period with the highest number of fatalities, with a total of 56 deaths. This Summer period was particularly dangerous for vulnerable road users, accounting for almost half of fatalities (27 of the 56 deaths). Twelve motorcyclists and 1 pillion passenger were killed in this 3-month period, as well as 9 pedestrians and 5 pedal cyclists. Vehicle occupants (drivers and passengers) accounted for the remaining 29 deaths.

There was also a peak in **October and November**, where 38 deaths were recorded over a two month period. This was a particularly dangerous period for car users (23 deaths) and pedestrians (9 deaths), with lower numbers of fatalities among cyclists (2) and motorcyclists (4).

2. Road User Type

Driver and passenger fatalities represent over half (60%) of fatalities in 2014, while vulnerable road users (pedestrians, motorcyclists and pedal cyclists) represent a growing proportion. One third of fatalities in 2013 were among vulnerable road users, rising to four in ten deaths in 2014. Of the vulnerable road users, the greatest number of deaths was among pedestrians, followed by motorcyclists.

There have been some changes in the profile of road user fatalities in 2014 compared to 2013, as shown in the graph below.



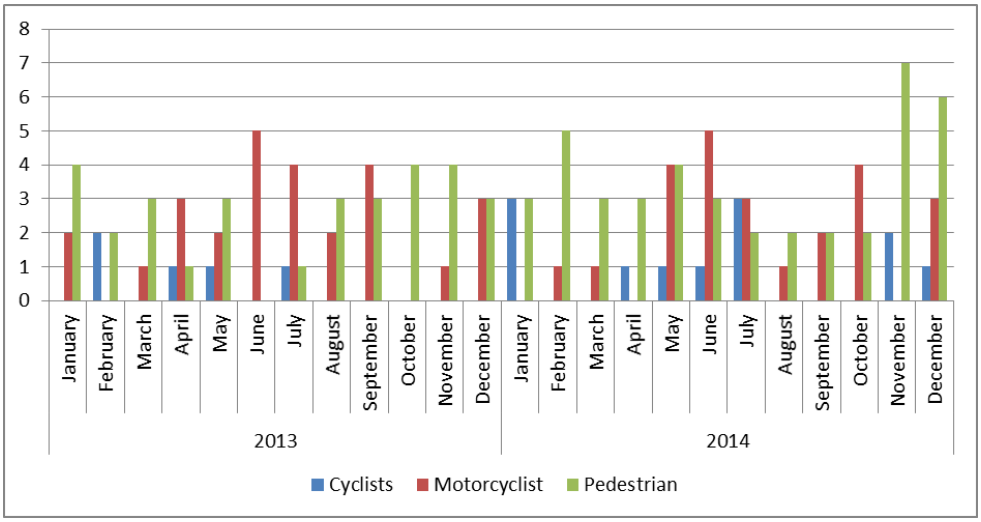
The greatest change in profile observed is a 17% reduction in driver fatalities, down from 95 to 79. However, this decline has been off-set by an increase in passenger deaths and an even greater increase in vulnerable road user deaths. Of most significance is the increase pedestrian fatalities (up from 31 to 42) and an increase in cyclist fatalities (up from 5 to 12). Though still high relative to pre-2013 figures, there has been a decline in the number of motorcyclist fatalities (down from 27 to 23) from 2013 to 2014.

A more detailed review of the contributory factors in these collisions will be conducted by the RSA in 2015.

A review of the monthly trends in fatalities among vulnerable road users is shown below.
Both 2013 and 2014 show peaks in **motorcyclist fatalities** during April/May, June and July, as well as a greater occurrence in the last Quarter of the year. The greater number of fatalities over the summer months coincides with a period of good weather in both years.

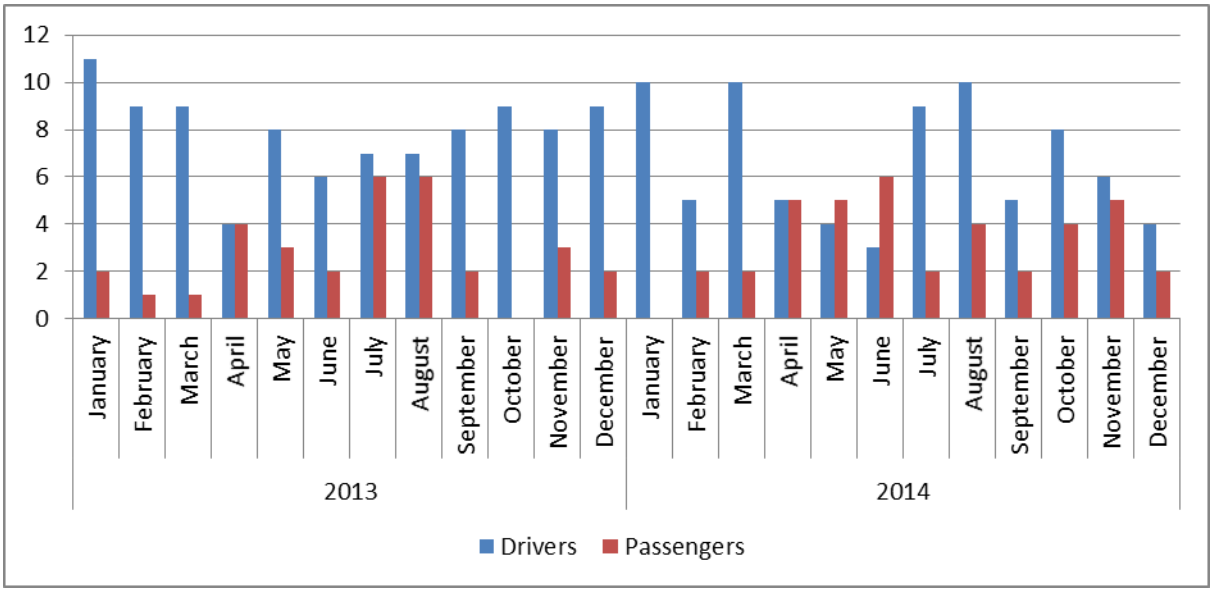
Pedestrians have been most vulnerable during the first and last quarter of each year, coinciding with the darker months of the year. November and December 2014 have been particularly dangerous for pedestrians, with 13 fatalities occurring in this two month period.

January, July and November were the most dangerous months for **cyclists** in 2014.



The chart below shows the distribution of driver and passenger fatalities over 2013 and 2014. The peaks in driver deaths observed consistently throughout 2013 were not recorded to the same extent in 2014. In 2014 driver fatalities peaked in the first Quarter of the year, over the Summer (July/August) and in the last Quarter of the year.

Passenger deaths did not decline to the same extent, however, and peaks were noted from April 2014 onwards.



Profile of pedestrian fatalities

Given the high number of pedestrian fatalities noted in 2014 (42), a review of the Garda collision reports was conducted. This review has revealed the following trends:

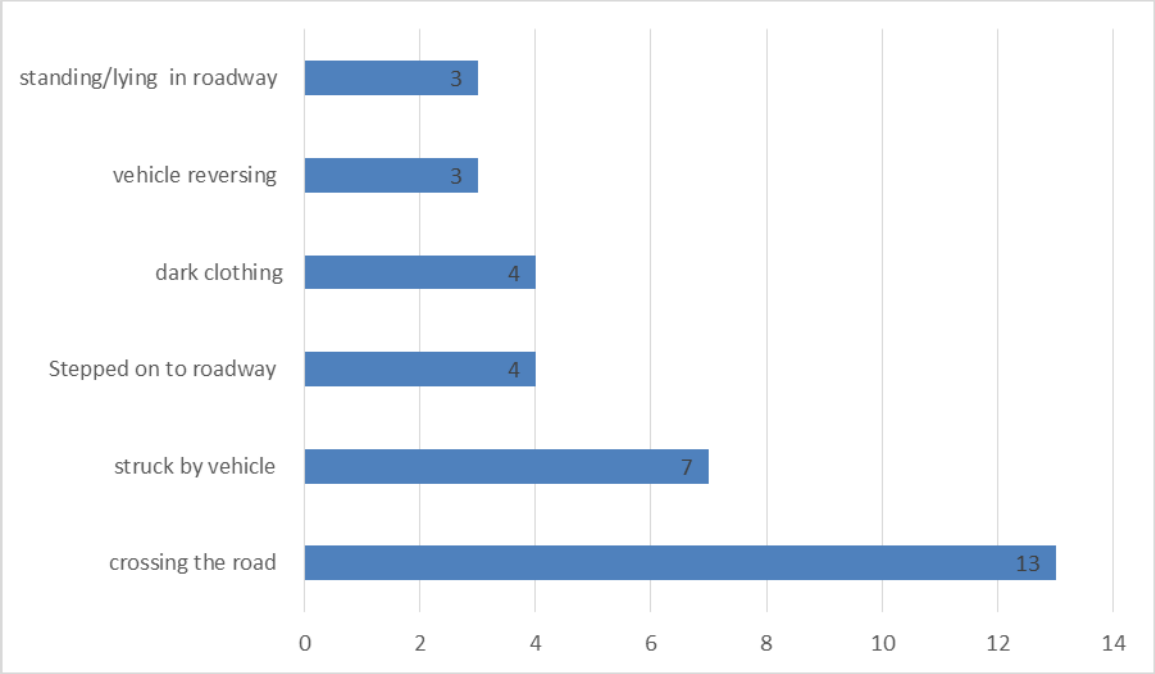
Age Profile: Where the age of pedestrian was known, it is evident that there is a higher rate of fatalities among younger and older people, as shown below. Those aged 60+ are particularly vulnerable, with 17 deaths in this age category, representing 40% of all pedestrian deaths. There were seven pedestrian deaths among children aged under 14:

Age	No. of pedestrians killed (2014)
<10	5
10-20	4
21-30	4
31-40	5
41-50	3
51-60	4
61-70	3
71-80	7
81-90	7

Gender: There were 21 male pedestrians killed, and 21 female pedestrians killed.
County: The greatest number of pedestrian fatalities occurred in Dublin (12).

Situation: A review of situational factors (where available) of the fatal collisions was also conducted.

These can be summarised as below. Note that more than one factor can apply to a given incident.



In 13 cases, a pedestrian was killed while crossing the road. In four further cases, the Garda report stated that the pedestrian 'stepped out into the road'. These could indicate an attempt to cross the road.

Lighting: in 16 cases, the conditions were described by the Garda at the scene as 'daylight with good visibility', in 13 cases, the conditions were described as dark with poor/no lighting, and in 9 cases it was dark, but the lighting was good.

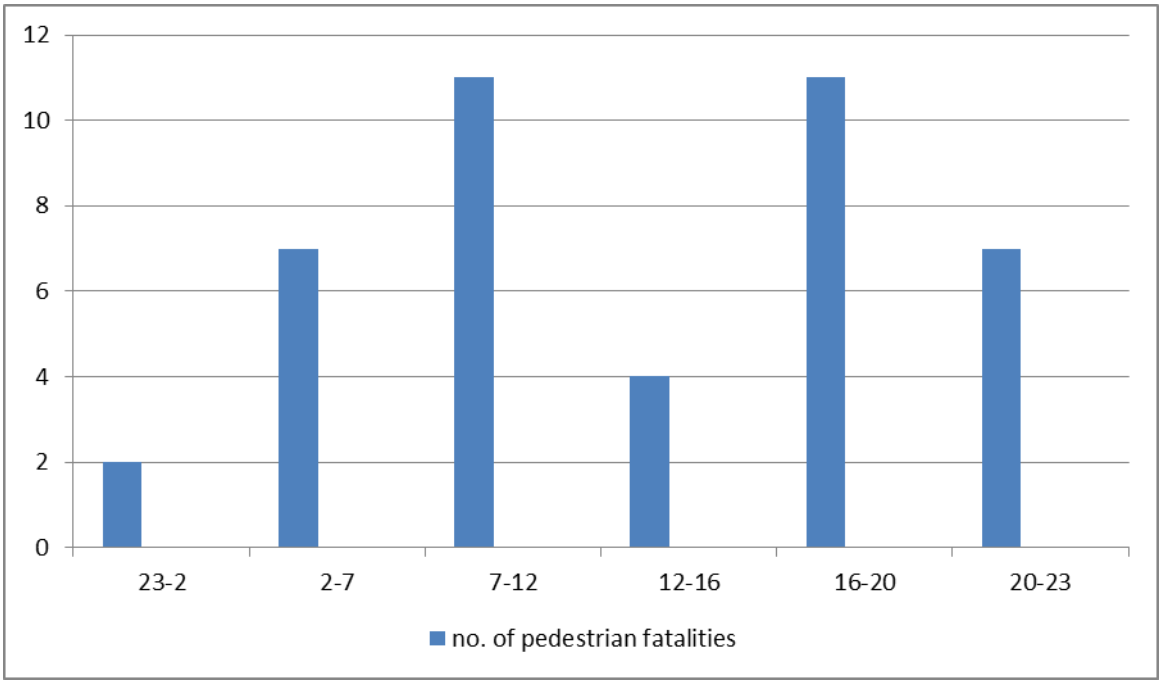
Vehicle involved: In the majority of cases, a car was involved in the pedestrian fatality (27 fatalities). Vans were involved in 6 fatal collisions, articulated trucks in 3 collisions, 2 jeeps, 2 taxis, 1 rigid truck and there was one collision involving a LUAS and a car.

Road Type: The greater majority (7 in 10) of pedestrian fatalities occurred on urban roads with a speed limit of 50km/h or less.

Speed limit (km/h)	No. of pedestrians killed (2014)
<=30	8
50	21
60	3
80	7
100	3

Time of day: Just over half of the fatal collisions (22) occurred during hours of darkness.

The chart below shows that pedestrian fatalities are most likely to occur in the morning and late afternoon/evening, i.e. from 2-7am (7 fatalities), from 7-12hours (11 fatalities), and from 16-20 hours (11 fatalities).



In summary, a review of pedestrian fatalities in 2014 shows that:

- Older and younger pedestrians are most vulnerable
- Crossing the road emerges as the most dangerous situational factor
- Urban roads are most dangerous
- High incidence of fatalities in the hours of darkness

What this means for the RSA:

- Communications on pedestrian safety are particularly relevant for younger and older age groups
- Increasing the use of high-visibility vests remains critical
- There is a need for re-enforcement of key road safety messages such as: how to cross the road safely as a pedestrian.

Profile of Driver Fatalities
There was a **17% decline in driver fatalities in 2014** (down from 95 to 79).

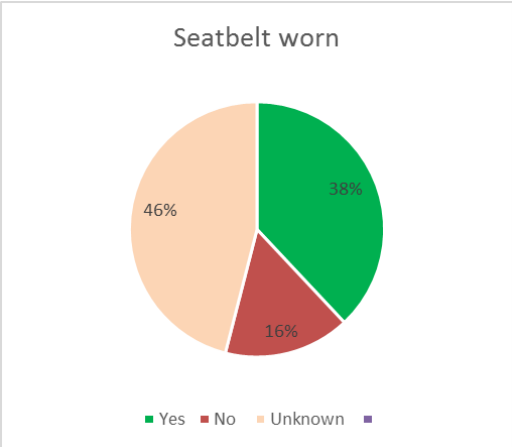
A review of the Garda collision information shows that the greater majority of these fatalities were among men (70%). The age profile of the drivers killed is shown below and indicates that younger drivers are the most vulnerable, followed by those aged 65+ and those in the 46-55 age group.

Age Group	No. of Fatalities	% of all Driver Fatalities
16-25	20	25%
26-35	14	18%
36-45	10	13%
46-55	12	15%
56-65	6	8%
66-75	10	13%
76+	7	9%

Of the driver fatalities, the vast majority involved car users, with a minority of fatal collisions involving other vehicle types, such as tractors (1), quad bikes (1), HGV's (2) or Vans (1).

Half of the driver fatalities (51%) were single vehicle collisions, with the remaining involving at least one other vehicle.

13 of the 79 drivers (16%) were not wearing a seatbelt.



Where information was available, it is evident that the greater majority of driver fatalities occurred on roads with a speed limit of 80km/h or 100 km/h as shown below.

Speed limit (km/h)	No. of drivers killed (2014)
30	1
50	5
60	9
80	27
100	30
120	5

A more detailed review of the collision database will be required to gain an understanding as to the causation factors of these fatalities, and this will be conducted in 2015.

Profile of Passenger Fatalities

The number of passenger fatalities increased from 32 to 39 in 2014.
A review of the Garda collision information shows that the greater majority of these fatalities were among men (64%). The age profile of the passengers killed is shown below and indicates that younger passengers are the most vulnerable, followed by those aged 26-45.

Age Group	**No. of Fatalities**	**% of all Passenger Fatalities**
<15	7	18%
15-25	10	26%
26-35	5	13%
36-45	5	13%
46-55	1	3%
56-65	4	10%
66-75	3	8%
76+	3	8%

Of these fatal collisions, 95% of the passengers killed were passengers in a car.
10 of the 39 passengers (26%) were not wearing a seatbelt.

Profile of motorcyclist fatalities in 2014

Given the high number of motorcyclist fatalities noted in 2014 (23 motorcyclists and one pillion passenger), a review of the collision information provided by An Garda Síochána was conducted. This review has revealed the following trends:

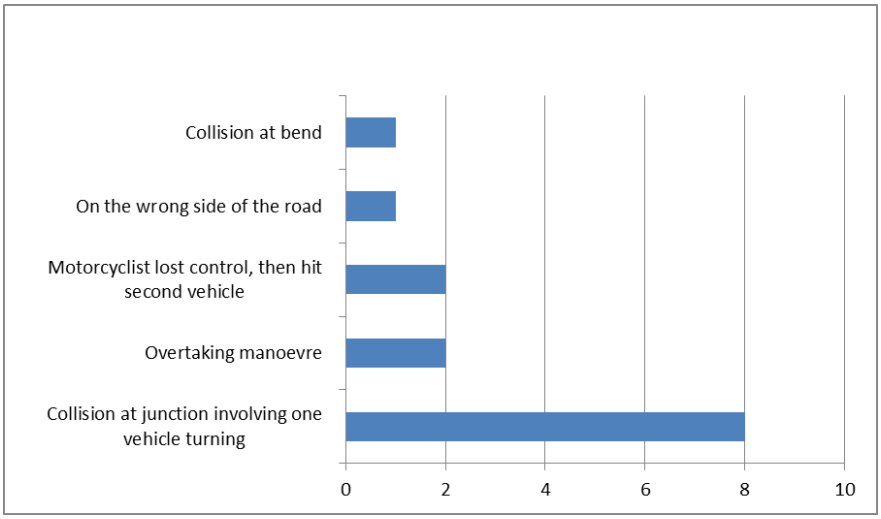
Age Profile: Motorcyclist fatalities are highest among those aged 20-30 and 31-40:

Age	No. of motorcyclists killed (2014)
<20	0
20-30	8
31-40	7
41-50	2
51-60	5
61-75	2

Gender: Where gender has been confirmed, there were 22 male motorcyclists killed, and one female killed.

Situation: A review of situational factors in the fatality was also conducted.

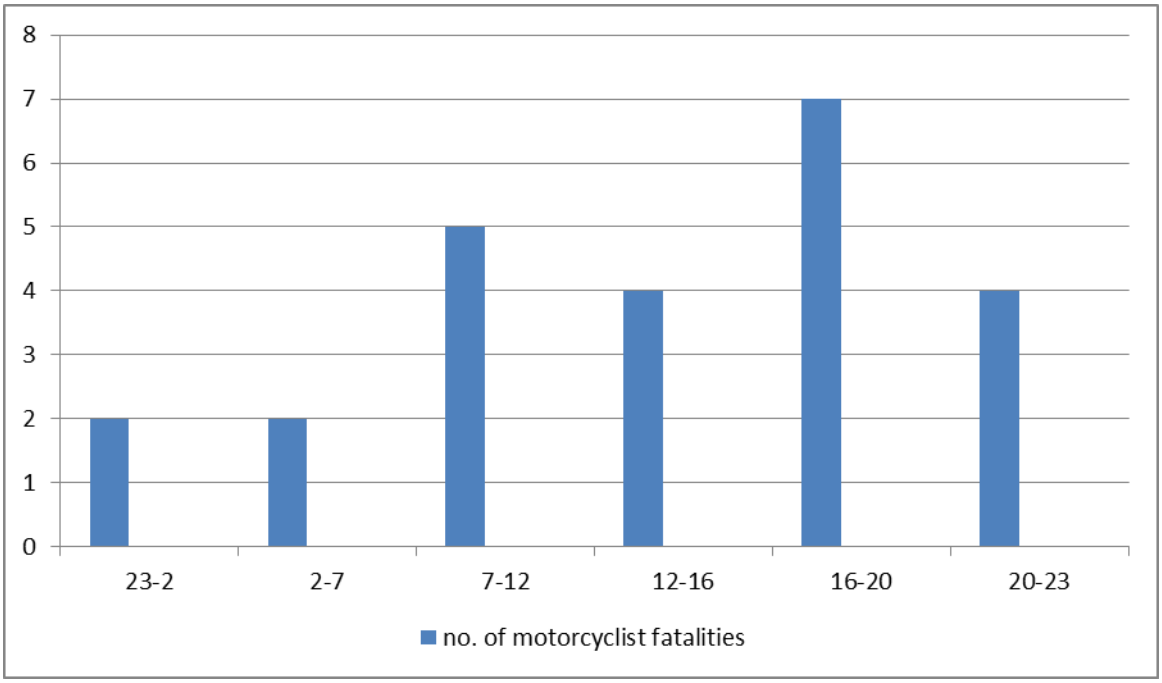
These can be summarised as below. Note that more than one factor can apply to a given incident.



Fatal collisions were most likely to occur at junctions, with either the motorcyclist or the other vehicle exiting on or off a main road; this type of manoeuvre has led to 8 fatalities in 2014. Overtaking manoeuvres and losing control of the motorcycle also emerged as noteworthy contributory factors.

Time of day: A minority of collisions (5) occurred during hours of darkness.

The chart below shows that motorcyclist fatalities are most likely to occur in the afternoon and early evening from 16-20 hours (7 fatalities)



Vehicle involved: 2 of the 22 collisions were single vehicle collisions, and 2 involved another motorcyclist. Of the multi-vehicle collisions, the motorcyclist was most likely to collide with a car (11). In a minority of cases, another vehicle type was involved: HGV (1), JCB (1), Jeep (1) van (1), bus (1) or tractor (2).

Road Type: The greater majority of motorcyclist fatalities occurred either on roads with an 80km/h speed limit (7) or a 100km/h speed limit (13).

Speed limit (km/h)	No. of motorcyclists killed (2014)
30	1
50	3
60	0
80	7
100	13
120	0

What this means for the RSA:

Motorcyclist awareness and education campaigns are critical to highlight the importance of:

- Good observation by motorists and motorcyclists, in particular at junctions
- Vigilance among motorists for motorcyclists at all times
- Public awareness that motorcyclists are vulnerable and collisions may be more severe
- Extreme caution by motorcyclists when overtaking

Profile of pedal cyclist fatalities in 2014
Twelve pedal cyclists were killed on Irish roads in 2014, more than double the number killed in 2013 (5).

A review of the collision information provided by An Garda Síochána was conducted, and this has revealed the following trends:

Age Profile: Cyclist fatalities are highest among those aged 30-49, but there is also a relatively high number of deaths among those aged 50+:

Age	No. of cyclists killed (2014)
<30	0
30-39	3
40-49	4
50-59	2
60-69	1
70-75	2

Gender: There were 9 male cyclists killed, and 3 females killed.

Situation: A review of situational factors (where available) was also conducted. Two fatalities occurred at a roundabout, one occurred at junction, and one occurred as a car moved out on to the main road; there was one fatality at a pedestrian crossing and one which resulted from a car taking avoidance action

Time of day: A third of collisions (4) occurred during hours of darkness. Cyclist fatalities were most likely to occur in the late afternoon and evening. There were four fatalities between the hours of 5pm and 7pm, and three fatalities between 8pm and 10pm.
There were two fatalities before 10am, and three around lunchtime between 11.30am and 2pm.

Month of Year: January and July were the most dangerous months for pedal cyclist fatalities, with three deaths occurring in each of these months. There were also two fatalities in November, and one each in the months April, May, June and December.

County: The greatest number of cyclist fatalities occurred in Dublin (3) followed by Limerick (2).

Vehicle involved: Half of the 12 fatal collisions involved a collision with a car (6); there were two collisions with a HGV, one with a van and one with a bus. In two cases, no other vehicle was involved.

Road Type: The greatest number of cyclist fatalities occurred on roads with a 50km/h speed limit, but higher speed roads (80km/h+) accounted for just as many fatalities (5) as illustrated below:

Speed limit (km/h)	No. of cyclists killed (2014)
30	1
50	5
60	1
80	3
100	1
120	1

What this means for the RSA:
Cyclist awareness and education campaigns are critical to highlight the importance of:

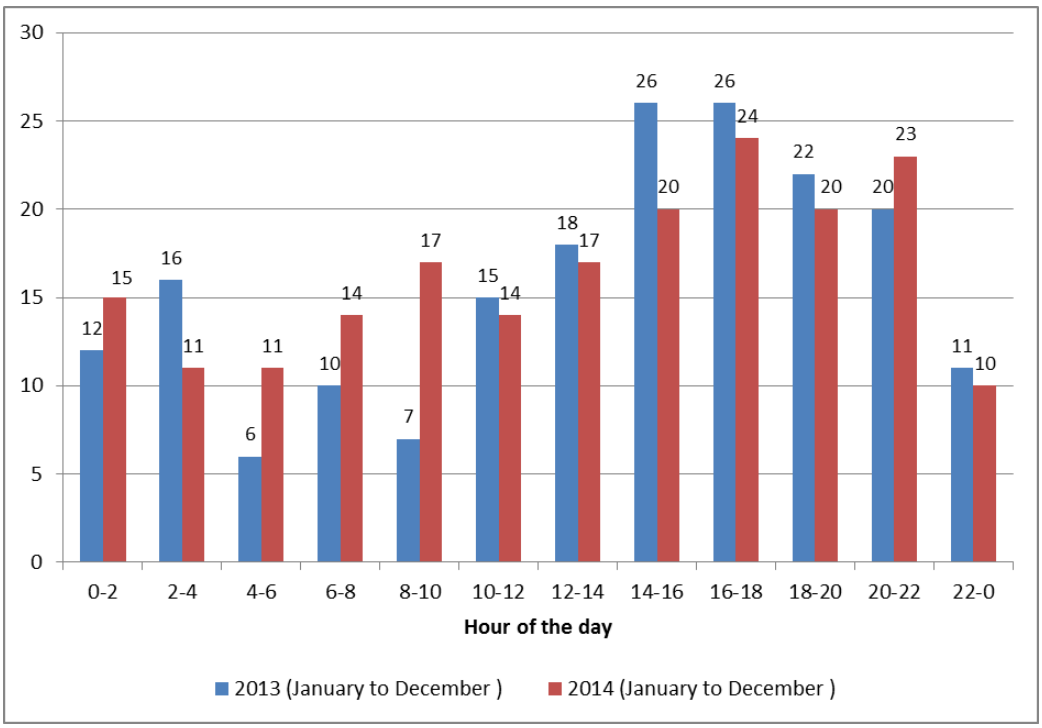
- Good observation by motorists and cyclists, in particular at junctions
- Vigilance among motorists for cyclists at all times
- Public awareness that cyclists are vulnerable and collisions may be more severe
- High visibility clothing remains critical for cyclists, particularly during winter months and during hours of darkness

Time of day

The afternoon and early evening between the hours 2pm and 6pm (44 deaths); and between the hours of 6pm and 10pm (43 deaths) were the most dangerous time on Irish roads in 2014. The below chart shows the distribution of fatalities by hour of day for January – December 2013 and January – December 2014.

The key differences of note are:

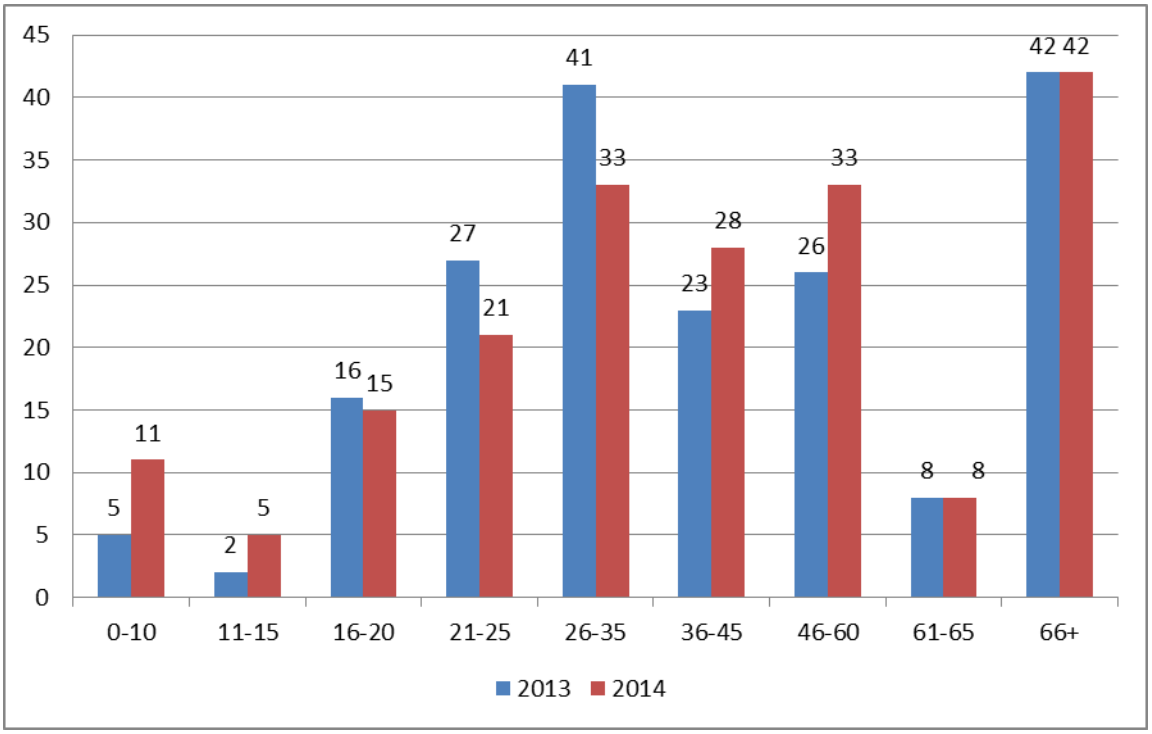
- Over two and a half times as many fatalities occurred between 8am and 10am in 2014 compared to the same period last year
- A further increase between 6am and 8am in 2014 compared to the same period in 2013.
- A notable decrease in the number of fatalities occurring between 2pm – 4pm



3. Age Profile (All Fatalities)

In 2014, the greatest number of fatalities on our roads were among those aged 66+ (42 deaths), followed by those in the 46-60 age group (33), those aged 26-35 (33), and those aged 36-45 (28).

There was a notable increase in the number of fatalities among children aged up to 10 years (+6), while there was a decline in fatalities among those aged 26-35 (-8) and 21-25 (-6).



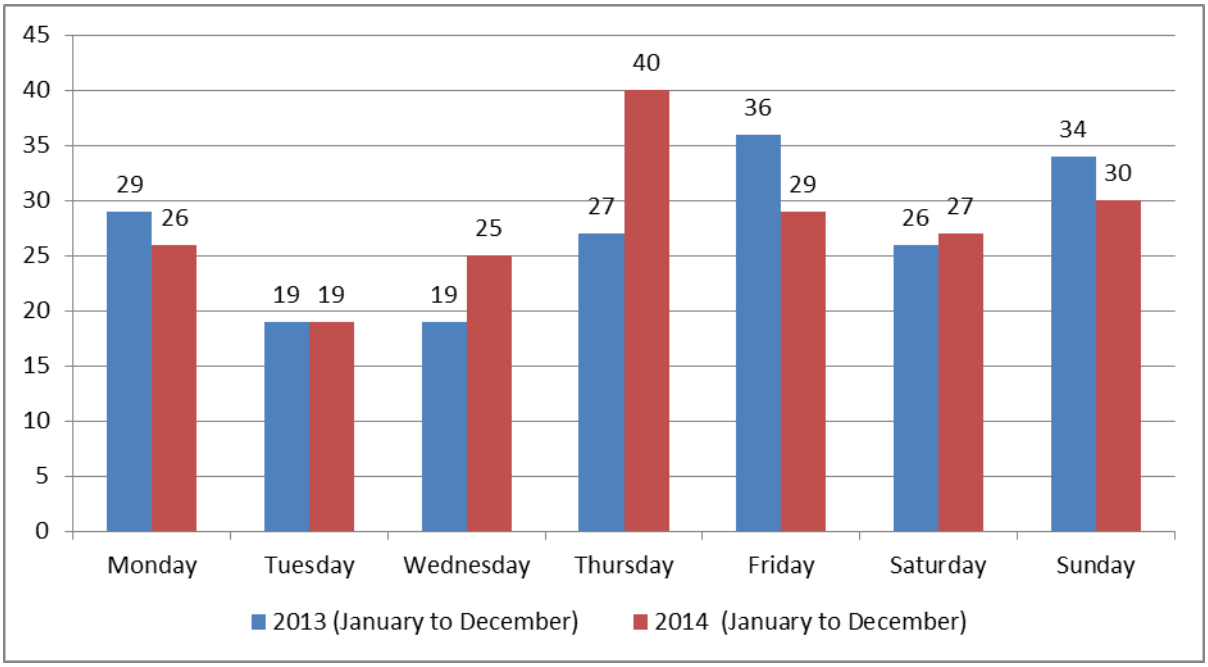
4. Day of week

Thursday was the most dangerous day on Irish roads in 2014, with a total of 40 lives lost over the full year. Friday through to Sunday show a slightly higher rate of fatalities compared to the early part of the week.

The below chart shows the distribution of fatalities by day of week for January – December 2014 and the same period in 2013.

The key differences of note are:

- A notable decrease in the number of fatalities occurring on Fridays and Sundays compared to 2013.
- Thursday now replaces Friday as the day on which fatal collisions are most likely to occur.



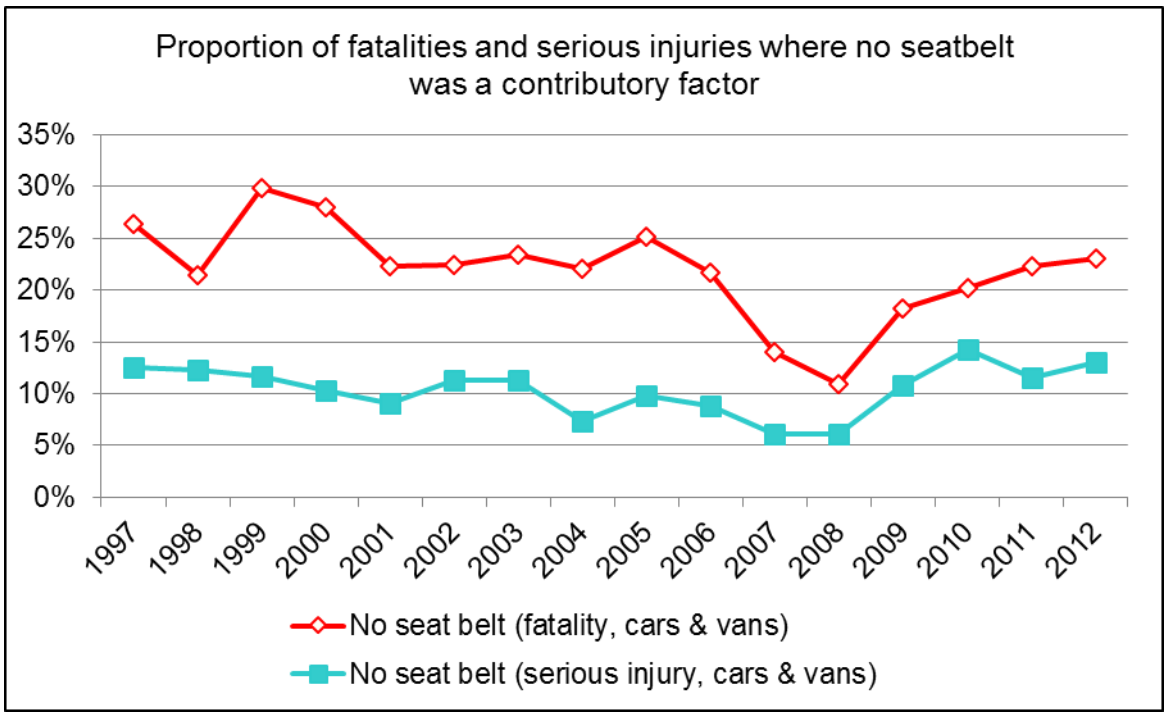
5. Regional Differences

The greatest increase in fatalities since 2013 is evident in the Dublin Region (+9), and increases are evident throughout the South Eastern, Southern, and Western regions. The exceptions are the Eastern Region, where a significant decline has occurred (-12), and the Northern region (-5). The increase in fatalities in Dublin may be influenced by the increase in pedestrian fatalities; Dublin had the highest number of pedestrian fatalities of any county (12).

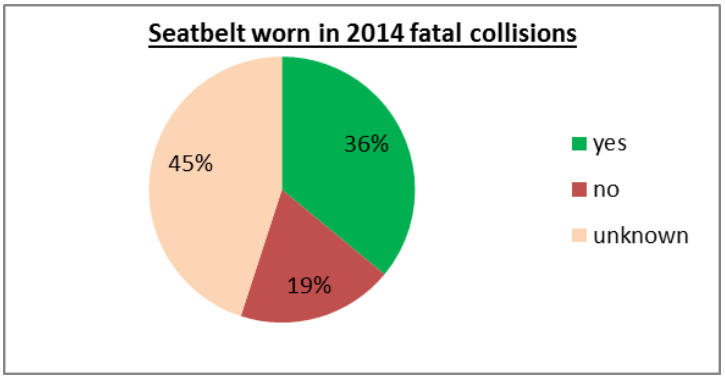
Regions to date 2013 & 2014			
Region	**2013**	**2014**	
Dublin	19	28	
Eastern	43	31	
South Eastern	27	33	
Southern	40	44	
Western	27	31	
Northern	34	29	
TOTAL	190	196	

6. Seatbelt wearing rates

Recent seatbelt observational studies conducted by the RSA show improved seatbelt compliance. While this points to improved public behaviour, 'no seatbelt' as a factor in fatal and serious injury collisions is on the increase (see chart below). This highlights the devastating impact of non-compliance if a collision occurs, and suggests that more emphasis on seatbelt wearing is required.



A review of the **2014 fatal collisions** among all drivers and passengers indicates that in the case of 19% of these fatalities, a seatbelt was not worn. This suggests that 23 fatalities may have been prevented had a seatbelt been worn. Note that in a significant proportion of collisions, it was not possible for the Garda at the scene to record whether or not a seatbelt was worn, as indicated below:



Conclusions

In summary, this report indicates that there have been changes in trends in fatal collisions for Jan-December 2014 compared to Jan-December 2013. The main points for consideration are:

- Greater number of pedestrian fatalities, particularly among younger and older people
- More than double the number of cyclist fatalities
- Significant number of motorcyclist fatalities, although a decline on 2013 figures
- Increased incidence of fatal collisions on Thursday, but fewer fatalities observed at the weekend
- Afternoon and evening is the most dangerous time on our roads
- Greatest increases in fatal collisions in Dublin and the South Eastern region
- High incidence of 'no seatbelt' as a factor in fatal collisions

Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority

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