

Cycling Collisions: Internal Report for the Department of Transport, Tourism and Sport

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Note: The information in this document is for internal purposes only, and cannot be shared publicly without the permission of the Research Department of the RSA. Details on individual collisions cannot be shared externally as in some cases, they are part of an on-going investigation.

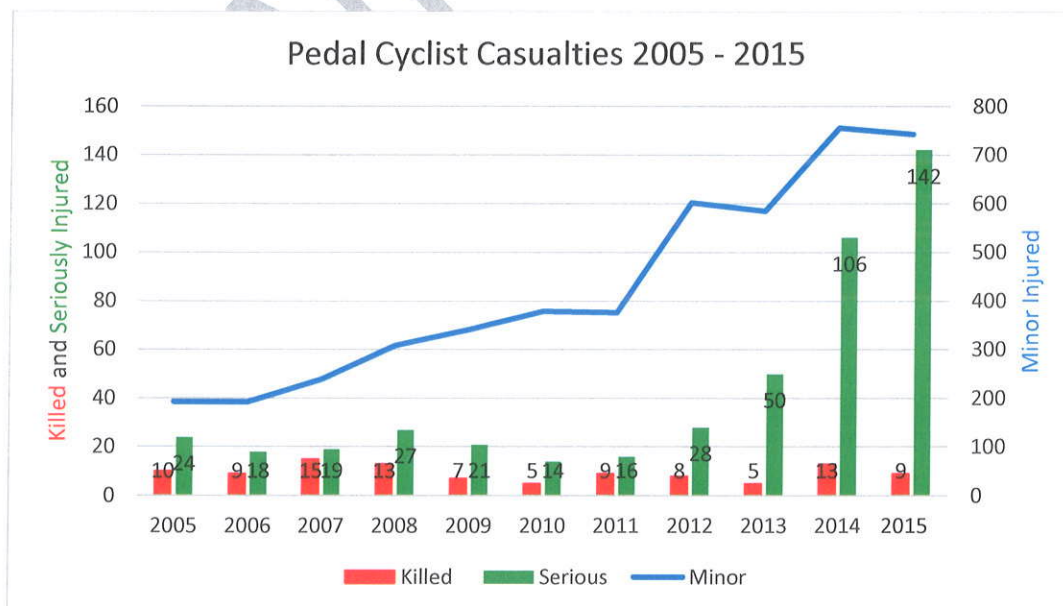
Historic Trend in Cyclist Fatalities & Injuries

Figure 1 below shows the number of cyclists killed and injured on Irish roads over the last 11 years. While the number of fatalities has remained relatively stable (average 9 per year), there have been significant increases in the numbers of cyclists injured (serious and minor) over the last six years. In particular, there was a 60% increase in cyclists injured in 2012, and a further 55% increase in 2014. It should be noted that in 2014 there was a change in method in which collision data is transferred to the RSA from An Garda Síochána and this has resulted in better identification of injuries.

Serious injuries represent a small proportion of all cyclists injured. However, there were significant increases in the numbers of cyclists seriously injured in each year from 2013 to 2015 as illustrated below.

Note: all figures for 2015 and 2016 are provisional and subject to change

FIGURE 1



Increase in popularity of cycling: risk exposure

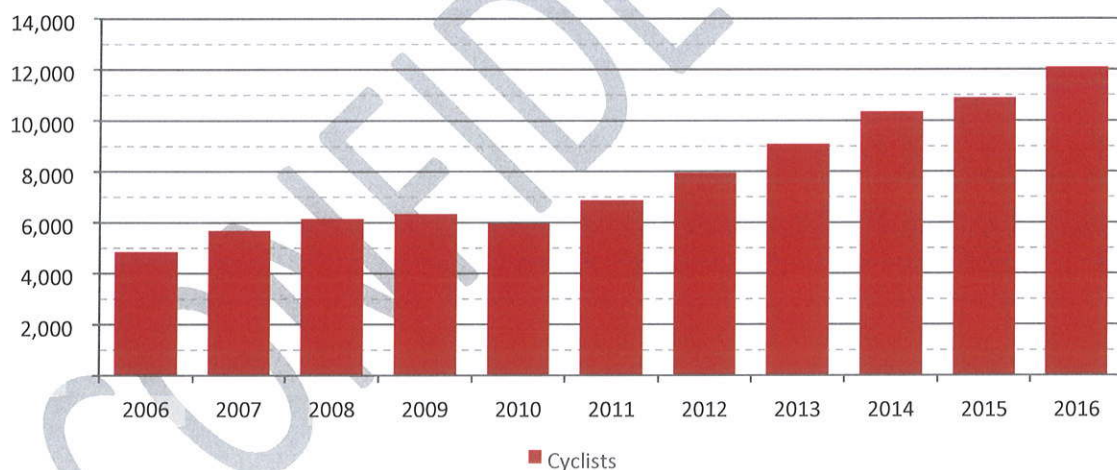
There is considerable anecdotal evidence of the increased popularity of cycling, however there is a lack of comprehensive data on cyclist numbers to give a reliable indication of risk exposure. It is important to have data on risk exposure to help put the increase in cyclist injuries seen since 2012 in context.

The 2011 CSO Census Report has indicated that cycling is most popular among men, also in Dublin rather than in any other county. It noted a 9.6% increase in the number of people cycling to work between 2006 and 2011, up from 36,306 to 39,803. Cycling to work was most popular in Dublin at 5.9 %, followed by Galway at 4.9 %. (The CSO will issue the next update from the 2016 census in July 2017.)

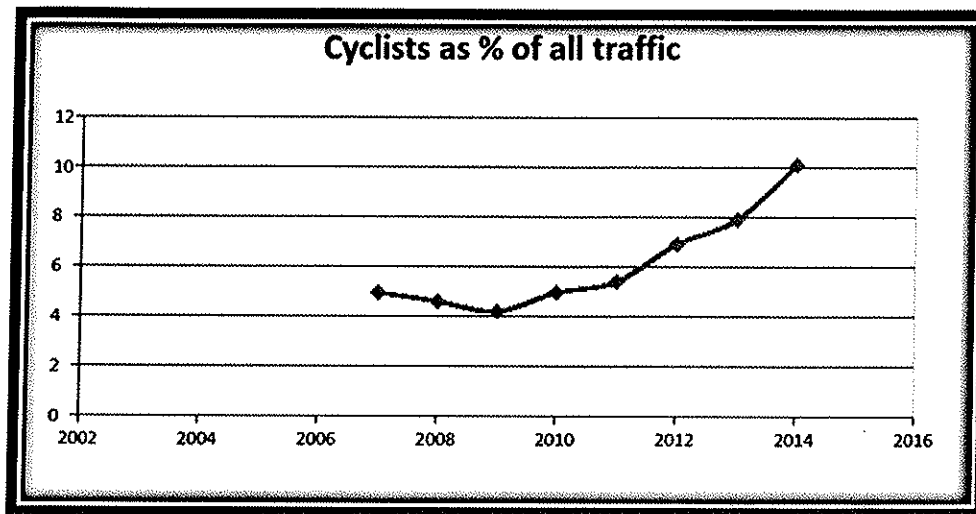
Data from the canal cordon travel counts issued by Dublin City Council shows that there has been a steady year on year growth in the number of cyclists crossing the cordon since 2010.

There was an increase of 11% in the number of cyclists crossing the canal cordon from 2015 to 2016. In 2016 over 12,000 cyclists crossed the cordon in the AM peak period. This represents an increase of 150% when compared with 2006, and represents an increase of over 50% in the last four years.

Number of Cyclists Crossing Cordon in AM Peak Period, 2006-2016



Also, the below chart shows the % of cyclists in traffic relative to other traffic modes crossing Dublin City Centre from 2007-2014. Again, this shows an increase in modal share for cyclists. (Chart issued by Dublin City Council).



Circumstances of Cyclist Fatalities in 2017*:

Important: The circumstances of these collisions are part of an on-going investigation. Details are not to be released externally.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Three of the cyclists were on racing bikes, suggesting they were experienced cyclists. There were two male and two female cyclists killed. Three of the fatalities occurred on a Sunday. Three of the cyclists were in their thirties.

**Provisional data, subject to change*

Profile of Cyclist Fatalities in 2016*:

There were ten cyclist fatalities in 2016.

Gender: Eight cyclist fatalities were male.

Age: Four of the cyclists killed were aged 56 years and older, two of the cyclists were under 15 years old and four cyclists were aged between 16-45.

Speed limits: Four collisions occurred on roads with a 50km/h speed limit or less, six on a road with an 80km/h speed limit or more.

Light conditions: Eight collisions occurred during daylight conditions and two collisions occurred during hours of darkness.

County: Three cyclist fatalities occurred in Louth, two occurred in each of Dublin and Cork, and one cyclist fatality occurred in each of Kerry, Offaly and Westmeath.

Helmets: Three cyclists confirmed as wearing helmets. five not wearing helmets.

Vehicles involved: Six collisions were with a car, one with a truck, one with a pedestrian and in two cases, there was no other vehicle involved.

Circumstances of Cyclist Fatalities in 2016*:

Important: The circumstances of these collisions are part of an on-going investigation. Details are not to be released externally.

[REDACTED]

**Provisional data, subject to change*

Profile of Cyclist Fatalities in 2015*:

There were nine cyclist fatalities in 2015.

Gender: Eight cyclist fatalities were male.

Age: Five of the cyclists killed were aged 56 years and older, the four remaining cyclists were aged between 35-45.

Speed limits: Two collisions occurred on roads with a 50km/h speed limit or less, seven on a road with an 80km/h speed limit or more.

Light conditions: All collisions occurred during daylight conditions and visibility was good in 8 of the collisions.

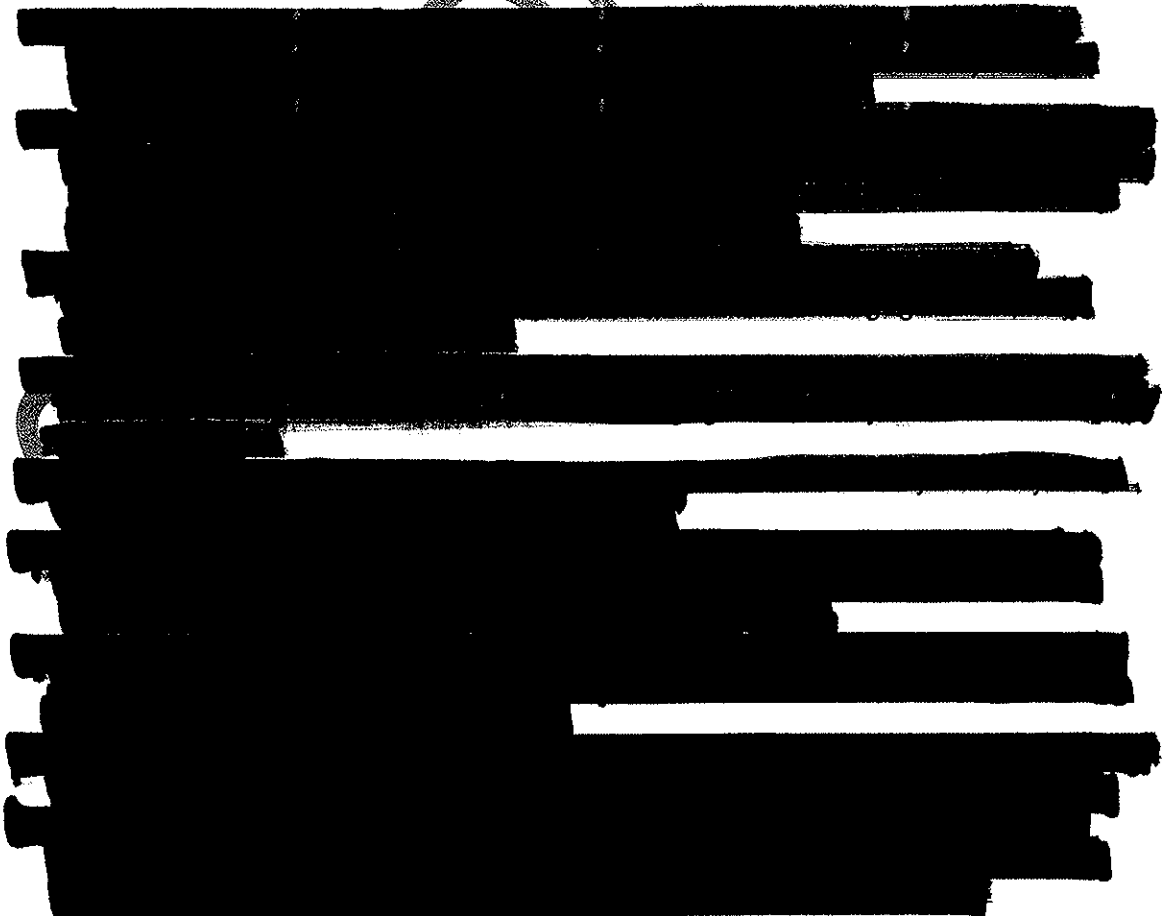
County: Two cyclist fatalities occurred in each of Cork, Donegal and Kerry and one cyclist fatality occurred in each of Dublin, Galway and Mayo.

Helmets: Five cyclists confirmed as wearing helmets, four not wearing helmets.

Vehicles involved: Five collisions were with a car, one with a commercial van and in three cases, there was no other vehicle involved.

Circumstances of Cyclist Fatalities in 2015*:

Important: The circumstances of these collisions are part of an on-going investigation. Details are not to be released externally.



Analysis of 2014 cyclist collisions¹

Vehicles Involved

In collisions involving two vehicles where one was a pedal cycle, 85% involved a car, 10% involved a goods vehicle, and 2% involved a PSV. The remainder involved another cyclist, motorcyclist or other type of vehicle.

Note that a further 170 cyclist collisions (19% of cyclists collisions) resulted from a collision with a pedestrian, more than 2 vehicles, or involved no other vehicle apart from the cyclist.

Gender/Age

The highest risk age groups among cyclist casualties are those aged 25-34 (26% of cyclists killed and injured); those aged 35-44 (22%) and those aged 45-54 (16%). The majority (77%) of cyclist casualties were male.

Location

Cyclists were most likely to be killed or injured in built up areas (87%) with a speed limit of 60km/h or less. Over half (57%) of cyclist casualties occurred in Dublin/the Greater Dublin region.

Further planned research on cyclist casualties:

The RSA Research Department will be undertaking the following in 2017:

- Production of a Pre-Crash Report on Cyclist Fatal Collisions that occurred over the period 2008-2014 based on closed investigation and coroner files (to be prepared in Q3 2017)
- Production of a report on cyclist use of cycle lanes based on observation studies, an attitudinal survey and a literature review of cycle lane infrastructure
- Investigating the feasibility of conducting a study on cyclist serious injuries using Garda investigation files, pending the availability of sufficient files from An Garda Síochána
- Commencement of 4 year PhD, supported by an RSA Bursary Award, to be conducted by DIT/TCD to identify the engineering factors contributing to cyclist collision hotspots in Dublin
- Further analysis of cyclist injuries to be conducted

¹ Note: this is the latest year for which validated data is currently available.

Education and Awareness Campaigns

A key objective of the RSA is the reduction of fatalities and injuries as a result of road collisions. Through a mix of media advertising, publicity, education initiatives and community activities we seek to positively influence attitudes and behaviors in order to improve Ireland's "road safety" culture.

Behaviour change is best achieved through education and awareness campaigns and by road users accepting that they have a significant role to play in ensuring their own and other road users safety. Cyclists are entitled to road space as much as cars, vans, goods vehicles or indeed any other vehicle on the road.

Specifically in relation to Cycling, the RSA has developed many educational programmes for cyclists that place a responsibility on all road users to pay attention and stay safe on the roads. Simple actions such as wearing a helmet and high visibility jacket, obeying the Rules of the Road and anticipating what drivers may do, could save a life.

The RSA's teacher led resources 'Be-Safe', 'Streetwise', 'Road Safety Matter's' and 'Your Road to Safety' for primary and secondary schools educate the students on cycle safety at the various stages as they progress in life. To re-enforce this learning the National Road Safety Education Service also visit schools, colleges, organisations and community groups on a daily basis and educate road users, parents and children on cycle safety.

The Road Safety interactive mobile unit - 'The Shuttle' provides road safety education to all sectors of the community by visiting large events throughout the country. Specific to cycling the Shuttle has a bicycle that educates cyclists on their good and bad behaviour as they cycle through various scenarios such as; parked cars with doors opening, positioning in relation to a truck on city road /urban area, correct positioning at junctions, correct positioning at roundabouts and the presence of pedestrians. The Shuttle visits many events and festivals nationwide as well as attending secondary and third level

The RSA has published a 'Cycle Safety' information booklet which is available free of charge to members of the public through the online ordering website. It is also available in over 800 merchandising stands nationwide and is very popular as it is in the top five booklets distributed. High visibility clothing and accessories are also freely available to the public through the online ordering websites.

Previously, the RSA in conjunction with Local Authorities provided cycle training to children in primary schools. This cycle training has now been replaced by the new standardised cycle safety training programme 'Cycle Right'. Cycling Ireland are now responsible for implementing this training nationwide, the RSA support this training by providing funding of €10 per child to Cycling Ireland. This standardised training ensures that children nationwide develop safe cycling habits and good road user behaviour at a young age. Through this programme, they learn to respect all road users including drivers. An emphasis is placed on the importance of obeying the 'Rules of the Road'.

Cycling Safety Awareness Programmes

The RSA takes the issue of cycle safety very seriously and has prioritised the issue since its inception in 2006 and each year in its calendar of activity.

More recently the RSA produced a 60 second TV advert focusing on cycle safety and in particular the need for drivers to take extra care when sharing the road with cyclists. Cyclists are entitled to road space as much as cars, vans, goods vehicles or indeed any other vehicle on the road. The ad aims to educate drivers on sharing the roads safely with cyclists, and motorists' responsibility to cyclists as vulnerable road users.

Although the ad is primarily aimed at motorists, throughout the commercial the perspective changes between cyclists and motorists, swapping from one to the other as they encounter each other. This is to contrast the perceived safety of a car versus the vulnerability of a bike, and to make motorists aware of this vulnerability.

The general message is the need for drivers to properly observe the road at all times for the presence of cyclists, be they commuters, shoppers, family or racing groups. However, it focuses specifically on a number of key manoeuvres. These include:

- i) Anticipating cyclists at junctions and checking the various driver blind spots.
- ii) Checking mirrors and blind spots when getting out of a parked vehicle to avoid the risk of 'dooring' a cyclist that might be passing by.
- iii) Allowing plenty of space when over-taking a cyclist, particularly when they are cycling in groups or two abreast. Indeed the ad specifically highlights (using a visual graphic) the need to keep at least a 1.5 m distance from the cyclist/s when overtaking. This ad can be viewed on our you tube channel at the following link http://www.youtube.com/watch?v=JB9d-c-M7D0&list=PLi8ngqsVU6ht0pNF4PjtpD4l0w7X_gsPC&index=1

Ultimately, motorists are being asked to be respectful of cyclists and mindful of how they use the road. We all share the road, and if we're considerate of each other, we'll see fewer needless accidents and deaths.

Of course cyclists have a responsibility to obey the rules of the road too, and this is something the RSA has addressed in the series of four information videos which can be viewed on the RSA's Youtube channel <http://www.youtube.com/rsaireland>.

They cover all the main safety aspects of cycling and what simply makes good cycling sense.

1. **Equipment Check:** This covers the correct set-up of a bicycle and the necessary safety equipment. Is the saddle the correct height? Are the tyres nice and firm, and the bell, lights and brakes all working properly? The film also gives advice on the choosing and wearing of a properly approved helmet and the importance of high visibility clothing.
2. **Rules of the Road:** Cyclists need to obey the same rules of the road as every other road user. Stopping at red lights, understanding and heeding road signs and markings is for the good of everyone's safety, including theirs.

3. Sharing the Road: Cyclists need to be aware and mindful of other road users. As well as having to obey the same rules, they also have the same rights. This film covers subjects including how cyclists should pass parked cars, cycling in heavy traffic and the importance of maintaining a safe distance from larger vehicles.
4. Signalling: Here, cyclists can learn the proper signalling procedures for making turns and using roundabouts, as well as the cautionary aspects of dealing with other vehicles when signalling.

Cycle Smart, Cycle Safe is all about following the simple rules that will allow everyone to share the road safely. To date the videos have collectively been viewed over 36,000 times.

In addition to the above the RSA has a section on its website that deals with cycling safety. From here people can also download the RSA's Cycling Safety booklet.

Blind Spot Mirrors on Goods Vehicles

The remit of the RSA also extends to Vehicle Standards and in this respect the RSA has worked with other stakeholders to raise awareness of the blind spot on goods vehicles, which has been identified as a factor in cycling deaths in this country.

Since the 1st October 2012 all HGV's with a DGVW (Design Gross Vehicle Weight) exceeding 7500kg, regardless of age must be fitted with Cyclops (or blind spot) mirrors.

The fitment of a class VI front mirror, often called a Cyclops mirror, has the potential to reduce fatalities and serious injuries from collisions between HGVs, cyclists and pedestrians. In Ireland the number of such incidents is disproportionately high and in particular incidents involving older people. In the twelve year period between 1996 and 2008, 21 deaths and 14 serious injuries can be attributed to the inability of a HGV driver to see the pedestrian / cyclist as they passed in front of the vehicle's blind zone. At present only HGV's registered after 2007 are obliged to have these safety enhancing mirrors, however many older HGV's may already have a mirror fitted.

In addition to this requirement, the annual HGV roadworthiness test has been updated to include a check for conformance with the new regulations

The RSA has reminded all cyclists to understand the dangers that exist when sharing the road with HGVs and to avoid placing themselves in the danger zone around HGVs. Pedestrians are reminded to use pedestrian crossings and to never cross in front of HGVs in stationary traffic.

Blind Spot Awareness Video

Due to their size and design, a truck has significant blind spots that present a danger to vulnerable road-users including cyclists. In June 2015 the RSA published a new video to tackle the problem. The aim of this video is to highlight the 'blind spot' areas around trucks to cyclists and truck drivers and to remind road-users that if you can't see the driver, the driver can't see you. the video can be viewed at the following link
<https://www.youtube.com/watch?v=VXgFnojE--k>

Previously, in February 2010, we developed a 6 minute video which is housed on our website and Youtube channel. This video, among other things, highlights the dangers of the blind spot on large vehicles and places both the cyclist and truck driver featured in each other's shoes to give them a greater appreciation of the situation from each other's perspective. The video was produced by the Road Safety Authority in conjunction with the

Department of Transport, Irish Road Haulage Association, Cyclist.ie and Dublin City Council.
http://www.youtube.com/watch?v=gOZbznisJow&list=PLi8nqrsVU6ht0pNF4PjtpD4I0w7X_gsPC&index=6 .

The RSA will continue to promote the videos and highlight the issue of blind spots on trucks in the media in co-operation with stakeholders.

Safe Overtaking Radio Ad (1.5 Metres)

In 2016 the RSA launched a new 30 second radio ad aimed at raising awareness of the need to give adequate clearance space when overtaking cyclists. Specifically, to give clearance of 1 metre in urban speed limit zones and a clearance of 1.5 metres in speed zones above 80km/h. The ad aired on both local and national radio stations and will continue to air in 2017.

360° Cycle Safety Videos published in June 2016

To mark Bike Week in June 2016 the RSA produced a series of videos that would enable motorists and other road users experience the vulnerability of cyclists. These videos were produced in 360°. They focus on:

- Before opening your door check your mirror and look for cyclists.
- Turning left
- Save overtaking distance (1.5 metres)

The three videos can be viewed at the following link

<https://www.youtube.com/playlist?list=PLi8nqrsVU6hvBVc16zKfAdPEzxBO4YQXF>

Bike Week

Each year the RSA marks National Bike Week which is typically held in the second week of June. Activities include visits by local road safety promotion officers to schools right up to the launch of mass media interventions such as the cycle safety videos, blind spot videos and the safe overtaking videos.

Promotional Giveaways on Social Media

The RSA regularly has 'give away' promotions on its social media platforms aimed at cyclists, this includes high visibility jacket and bicycle light 'give aways'. A recent example was a promotion to give away 3,000 bicycle lights on our Facebook and Twitter pages throughout Irish Road Safety Week in October 2016.

Irish Times Cycling Supplement

In April 2016 the Irish Times published a supplement on cycling in Ireland in association with the Road Safety Authority (RSA), which took a look at the growing popularity of travelling on two wheels.

It covered everything cycling-related, from what equipment and gear you need, being a safe cyclist and the implementation of 30km zones. The supplement was also circulated to secondary schools across the country free of charge.

Anti-Speeding Ad 2016.

In October 2016 the RSA launched a new urban speeding campaign. The aim of the campaign, which is fronted by a 40 second TV public service ad, is to raise awareness of the danger of low level speeding by drivers in urban areas. Speeding drivers in urban areas which are typically 50 km/h zones are typically rich in pedestrians and cyclists and are at most risk of suffering serious outcome if involved in a collision with a car.

'On the Spot' fines system

While the RSA will continue to educate both cyclists and drivers An Garda Síochána also

have a role to play in enforcing the Rules of the Road and a significant development took place in this regard with the introduction of fixed charge notices. This was one of the actions in the Government Road Safety Strategy 2013 to 2020. This should go some way towards improving the errant behaviour of cyclists using the roads and the RSA has and will continue to promote the new fines system through its social media channels.

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