## FREE SPEED STUDY Survey Report 2014 <br> Research Department <br> June 2015

## Free-speed Survey - Overview

## Study Objectives:

To determine the incidence of drivers of all vehicle types driving on Irish roads while speeding, and therefore presenting a road safety risk. Speed surveys are designed to monitor changes in the free speeds of vehicles in both urban and rural areas and to measure drivers' choice of speed. Free speeds is defined as the speed at which drivers choose to travel when unconstrained by road geometry (e.g. sharp bends, intersections or hills), weather conditions (e.g. rain) or traffic conditions (e.g. congestion).

## Methodology:

In November 2014, Nationwide Data Collection conducted an observational study of over 16,500 vehicles on behalf of the Road Safety Authority. The surveys took place at the roadside at 91 sites: 39 urban ( $60 \mathrm{~km} / \mathrm{h}$ or less speed limit) and 52 rural ( $80 \mathrm{~km} / \mathrm{h}$ or more speed limit) and cars $(12,241)$, rigid goods vehicles $(2,430)$, semi-articulated vehicles $(1,327)$ and single decker buses (404) were observed. A further 216 vehicles were surveyed at a site with long term road works and a temporary speed limit. Surveys were carried out at the designated locations during working hours (8.30am to 5.30pm), Monday to Friday. Only speeds of vehicles that were unconstrained - speeds derived from vehicles with a headway / gap of at least 200 metres on roads where it was possible to exceed the speed limit - were recorded.
The target sample size for surveys on urban national roads was: 140 cars, 90 rigid vehicles and 30 articulated vehicles; no quotas were allocated for buses surveyed. The target sample size for urban residential and urban arterial roads was 140 cars (no buses, rigid or articulated vehicles were surveyed for these roads).

## Key Findings:

- The percentage of car drivers breaking the speed limit on urban roads was $60 \%$; when residential roads are excluded, this rises to $73 \%$ for all other urban national roads
- The percentage of car drivers breaking the speed limit on rural roads was $24 \%$
- Trucks and buses were more likely to exceed the speed limit on rural roads than cars
- The percentage of cars speeding on motorways increased from $21 \%$ in 2013 to $28 \%$ in 2014
- The percentage of cars speeding on dual carriageways increased from $28 \%$ in 2013 to $36 \%$ in 2014
- The percentage of cars speeding on regional $80 \mathrm{~km} / \mathrm{h}$ roads increased from $36 \%$ in 2013 to $45 \%$ in 2014
- There was a $15 \%$ reduction in the percentage of car drivers speeding on urban national $60 \mathrm{~km} / \mathrm{h}$ roads but a $2 \%$ increase on urban arterial $60 \mathrm{~km} / \mathrm{h}$ roads
- Average car free speed:
- $115 \mathrm{~km} / \mathrm{h}$ on motorways in $2014,110 \mathrm{~km} / \mathrm{h}$ in 2013; posted limit ${ }^{120}$
- $99 \mathrm{~km} / \mathrm{h}$ on dual carriageways in $2014,95 \mathrm{~km} / \mathrm{h}$ in 2013; posted limit
- $66 \mathrm{~km} / \mathrm{h}$ on urban arterial roads in $2014,66 \mathrm{~km} / \mathrm{h}$ in 2013 ; posted limit
- $58 \mathrm{~km} / \mathrm{h}$ on urban national roads in $2014,60 \mathrm{~km} / \mathrm{h}$ in 2013; posted limit 50


## Speeding on urban roads

Speeding here is defined as driving at a speed greater than the ordinary speed limit for the particular vehicle on the particular road, e.g. the speed limit for a truck is $90 \mathrm{~km} / \mathrm{h}$ on motorways with a posted speed limit of $120 \mathrm{~km} / \mathrm{h}$ (see appendix 5 ). Of those vehicles surveyed $45 \%(5,479)$ of cars, $16 \%(397)$ of rigid trucks, $19 \%$ (256) of articulated trucks, and $18 \%$ (72) of buses were on urban roads.

- $60 \%$ of all cars observed on all urban roads were speeding;
- $53 \%$ of all rigid trucks observed on all urban roads were speeding;
- $60 \%$ of all articulated trucks observed on all urban roads were speeding;
- 46\% of all single decker buses observed on all urban roads were speeding


WORST OFFENDERS

231 CARS
WERE SPEEDING IN

RESIDENTI
AL AREAS WITH A SPEED LIMIT OF 50KM/H. OF THESE, SIX WERE DRIVING OVER 70KM/H WITH ONE DRIVING AT 78KM/H

Car drivers on national urban 50 and $60 \mathrm{~km} / \mathrm{h}$ roads exceeded the speed limit by the greatest margin, with one third of motorists exceeding the posted limit by more than $10 \mathrm{~km} / \mathrm{h}$

Only $27 \%$ of cars in national urban 50 and $60 \mathrm{~km} / \mathrm{h}$ areas travelled at or below the speed limit


## Speeding on rural roads

$55 \%(6,762)$ of cars, $84 \%(2,033)$ of rigid trucks, $81 \%(1,071)$ of articulated trucks, and $82 \%(332)$ of buses surveyed were on rural roads.

- $24 \%$ of all cars observed on all rural roads were speeding;
- 35\% of all rigid trucks observed on all rural roads were speeding;
- 46\% of all articulated trucks observed on all rural roads were speeding;
- $43 \%$ of all single decker buses observed on all rural roads were speeding

Historic speeding rates of cars on rural roads


Of all rural routes, car drivers are most likely to exceed the posted speed limit on dual carriageways and non-national $80 \mathrm{~km} / \mathrm{h}$ roads; drivers are also exceeding the speed limit by the greatest margin on these routes


Only 20\% of articulated trucks on Dual Carriageways travelled at or below the speed limit

ONE DRIVER WAS TRAVELLING AT 142KM/H ON AN 80KM/H RURAL ROAD, WHICH IS 1.8 TIMES OVER THE SPEED LIMIT
42 CARS WERE DRIVING OVER 120KM/H ON DUAL CARRIAGEWAYS WITH


Buses on dual carriageways exceeded the speed limit by the greatest margin, with 4 in 10 travelling at $11-20 \mathrm{~km} / \mathrm{h}$ over the limit. Of the 82 cars surveyed in an urban residential $30 \mathrm{~km} / \mathrm{h}$ area only half (51\%) travelled at or below the speed limit


## Who's up and who's down: Speeding by cars

Historic speeding rates for vehicles and road types can be found in the tables in appendix 2 and 3. In particular speeding by cars on urban roads has increased by $2 \%$ on each of urban arterial ( 50 and $60 \mathrm{~km} / \mathrm{h}$ ) and urban residential ( $50 \mathrm{~km} / \mathrm{h}$ ) roads between 2013 and 2014. There was also a $7 \%$ increase on local $50 \mathrm{~km} / \mathrm{h}$ roads and an increase of $15 \%$ on local $60 \mathrm{~km} / \mathrm{h}$ roads. Over the same period speeding has decreased on national urban $50 \mathrm{~km} / \mathrm{h}$ roads by $6 \%$ and on national urban $60 \mathrm{~km} / \mathrm{h}$ roads by $15 \%$, and regional $50 \mathrm{~km} / \mathrm{h}$ roads by $7 \%$.

Rural motorway, dual carriageway, and regional $80 \mathrm{~km} / \mathrm{h}$ roads had an increase in speeding of $7 \%$, $8 \%$, and $9 \%$ respectively, between 2013 and 2014. There was a decrease in rural primary and secondary road speeding by cars of $1 \%$ on each road type.

## ROADWORKS

> ONE SITE SURVEYED WAS IN AN AREA WITH LONG TERM ROAD WORKS AND A TEMPORARY SPEED LIMIT OF 60KM/H. OF THE 216 VEHICLES SURVEYED PASSING THIS SITE, 98\% WERE TRAVELLING ABOVE THE TEMPORARY SPEED LIMIT. THIS SITE WAS NOT INCLUDED IN THE OVERALL ANALYSIS.

## Summary \& Recommendations

The Government Road Safety Strategy 2013 - 2020 sets ambitious targets for speed compliance: 'A target of $100 \%$ compliance has been set and whilst it is acknowledged it may be difficult to achieve, it is a necessary requirement to support the primary targets of fatality and serious injury reduction in this Strategy'.

Based on the results from the 2014 Free-Speed survey, speeding is an issue on all road types, in all speed limit areas, and across all vehicle types.

However, there are certain areas that are a particular cause for concern. That is

- Car drivers in urban $50 \mathrm{~km} / \mathrm{h}$ and $60 \mathrm{~km} / \mathrm{h}$ areas and
- Larger vehicles (trucks and buses) on rural $100 \mathrm{~km} / \mathrm{h}$ roads

In the event of a collision in these situations, it is other road users (pedestrians, cyclists, motorcyclists, and other drivers) who are at greatest risk of injury or death.

There is a need for continued education of drivers and future drivers about the dangers of speeding in general. While education is one aspect of the drive to reduce speeding to appropriate levels, enforcement continues to play a vital role through the use of the safety camera system.


Within the Road Safety Strategy 2013-2020 there are a number of actions that pertain to the improvement of speed compliance in Ireland, and work is underway in these areas:

Actions 1\&4: These relate to the implementation of public education/awareness campaigns which target the main causal factors for collisions, including speeding, and the improvement of road users' understanding of how and why speed limits are set (RSA).

Action 90/ Action 16 of the Speed Limit Review Report: This relates to researching Intelligent Speed Adaption systems, based on trials and pilot studies (DTTAS/RSA)

Action 72: This relates to the continuation of the outsourcing of the operation of safety cameras (An Garda Síochána)

Action 91: Relates to legislating for, subject to legal advice, and implement the use of average speed cameras at appropriate locations (DTTAS)

Action 114: Relates to the conduct of annual surveys of drivers free speed (RSA)

In relation to Actions 1\&4, communications campaign development should take into account the following:

- Speeding in urban areas places vulnerable road users at greater risk of injury or death;
- Speeding in rural areas puts everyone involved in the collision at greater risk of injury or death because of the higher speeds experienced.

The European Transport Safety Council (ETSC) has also made a number of recommendations to Member States about speed management, many of which are integrated into the current Road Safety Strategy. These include:

- Enforcement: safety cameras should be introduced, and time-over-distance cameras should be considered
- Penalty points for speeding should be implemented, and there should be increases in points in line with the degree of speed violation
- Intelligent Speed Adaption: member states are encouraged to roll out ISA nationally, and develop digital maps of speed limits
- $\quad 30 \mathrm{~km} / \mathrm{h}$ limits in residential areas should be introduced, also in areas with a high volume of vulnerable road users
- There should be a maximum $\mathbf{5 0 k m} / \mathbf{h}$ speed limit in urban areas

Note that the Department of Transport, Tourism and Sport, in conjunction with Local Authorities, are pursuing piloting $30 \mathrm{~km} / \mathrm{h}$ speed limits in certain residential areas for 2014/2015.

## Appendix 1

Detailed Tables - Free-speed by Road Type 2014

| Cars | Sample No. | No. Speeding | \% Speeding | Avg. <br> Speed <br> (km/h) | Percentile Free Speed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Road Type - km/h |  |  |  |  | 50th | 85th |
| Urban National - 30 | 280 | 280 | 100.0 | 55 | 55 | 63 |
| Urban National - 50 | 700 | 534 | 76.3 | 58 | 57 | 68 |
| Urban National - 60 | 420 | 191 | 45.5 | 61 | 59 | 69 |
| Urban Arterial - 50 | 980 | 817 | 83.4 | 59 | 58 | 68 |
| Urban Arterial - 60 | 979 | 680 | 69.5 | 66 | 65 | 76 |
| Residential - 30 | 82 | 40 | 48.8 | 30 | 30 | 34 |
| Residential - 50 | 1338 | 231 | 17.3 | 42 | 41 | 51 |
| Motorways - 120 | 1680 | 462 | 27.5 | 115 | 115 | 125 |
| Dual Carriageways - 100 | 980 | 356 | 36.3 | 99 | 97 | 111 |
| National Primary Road - 100 | 1398 | 257 | 18.4 | 92 | 92 | 102 |
| National Secondary Road - 100 | 1400 | 105 | 7.5 | 85 | 84 | 95 |
| Regional Roads - 50 | 280 | 146 | 52.1 | 52 | 51 | 62 |
| Regional Roads - 80 | 616 | 275 | 44.6 | 79 | 79 | 92 |
| Local Roads - 50 | 140 | 128 | 91.4 | 66 | 66 | 77 |
| Local Roads - 60 | 140 | 51 | 36.4 | 59 | 58 | 67 |
| Local Roads - 80 | 688 | 146 | 21.2 | 68 | 69 | 84 |
| Motorway - 60 (road works) | 140 | 137 | 97.9 | 90 | 89 | 105 |


| Articulated Trucks | Sample No. | No. Speeding | \% Speeding | Avg. <br> Speed <br> (km/h) | Percentile Free Speed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Road Type - km/h |  |  |  |  | 50th | 85th |
| Urban National - 30 | 39 | 39 | 100.0 | 54 | 53 | 63 |
| Urban National - 50 | 121 | 76 | 62.8 | 53 | 53 | 60 |
| Urban National - 60 | 78 | 24 | 30.8 | 57 | 58 | 64 |
| Motorways - 120 | 373 | 32 | 8.6 | 86 | 87 | 90 |
| Dual Carriageways - 100 | 214 | 171 | 79.9 | 84 | 85 | 89 |
| National Primary Road - 100 | 292 | 219 | 75.0 | 83 | 84 | 88 |
| National Secondary Road - 100 | 111 | 52 | 46.8 | 78 | 79 | 85 |
| Regional Roads - 50 | 10 | 0 | 0.0 | 39 | 39 | 43 |
| Regional Roads - 80 | 51 | 15 | 29.4 | 74 | 77 | 84 |
| Local Roads - 50 | 3 | 3 | 100.0 | 62 | 63 |  |
| Local Roads - 60 | 5 | 0 | 0.0 | 54 | 55 |  |
| Local Roads - 80 | 30 | 1 | 3.3 | 60 | 64 | 74 |
| Motorway - 60 (road works) | 30 | 30 | 100.0 | 83 | 85 | 89 |


| Rigid Trucks | Sample No. | No. Speeding | \% Speeding | Avg. Speed (km/h) | Percentile Free Speed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Road Type - km/h |  |  |  |  | 50th | 85th |
| Urban National - 30 | 52 | 52 | 100.0 | 50 | 50 | 56 |
| Urban National - 50 | 188 | 106 | 56.4 | 52 | 52 | 60 |
| Urban National - 60 | 101 | 26 | 25.7 | 56 | 56 | 64 |
| Motorways - 120 | 766 | 42 | 5.5 | 85 | 85 | 89 |
| Dual Carriageways - 100 | 503 | 314 | 62.4 | 82 | 83 | 88 |
| National Primary Road - 100 | 414 | 264 | 63.8 | 81 | 83 | 87 |
| National Secondary Road - 100 | 221 | 77 | 34.8 | 76 | 77 | 84 |
| Regional Roads - 50 | 22 | 3 | 13.6 | 46 | 47 | 51 |
| Regional Roads - 80 | 69 | 12 | 17.4 | 71 | 72 | 81 |
| Local Roads - 50 | 6 | 5 | 83.3 | 63 | 65 | 73 |
| Local Roads - 60 | 28 | 4 | 14.3 | 54 | 54 | 61 |
| Local Roads - 80 | 60 | 2 | 3.3 | 58 | 61 | 71 |
| Motorway - 60 (road works) | 34 | 33 | 97.1 | 81 | 82 | 89 |


| Single Decker Buses | Sample No. | No. Speeding | \% Speeding | Avg. <br> Speed <br> (km/h) | Percentile Free Speed |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Road Type - km/h |  |  |  |  | 50th | 85th |
| Urban National - 50 | 28 | 17 | 60.7 | 52 | 52 | 58 |
| Urban National - 60 | 35 | 12 | 34.3 | 58 | 58 | 64 |
| Motorways - 120 | 118 | 4 | 3.4 | 93 | 95 | 98 |
| Dual Carriageways - 100 | 95 | 84 | 88.4 | 89 | 89 | 96 |
| National Primary Road - 100 | 52 | 36 | 69.2 | 85 | 85 | 93 |
| National Secondary Road - 100 | 45 | 13 | 28.9 | 76 | 76 | 85 |
| Regional Roads - 50km/h | 6 | 0 | 0.0 | 40 | 40 | 42 |
| Regional Roads - 80km/h | 11 | 3 | 27.3 | 74 | 74 | 82 |
| Local Roads - 60 | 2 | 0 | 0.0 | 45 | 45 |  |
| Local Roads - 80 | 11 | 3 | 27.3 | 70 | 72 | 82 |
| Motorway - 60 (road works) | 6 | 6 | 100.0 | 87 | 86 | 98 |

## Appendix 2

Percentage speeding (Urban) 1999 to 2014

| Vehicle <br> Class | 1999 | 2002 | 2003 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 | 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Urban Arterial - $50 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Car | 99 | 99 | 86 | 91 | 86 | 40 | 70 | 68 | 77 | 74 | 81 | 83 |
| Articulated | - | - | - | - | - | - | - | - | - | - | - | - |
| Rigid | - | - | - | - | - | - | - | - | - | - | - | - |
| S.D. Buses | - | - | - | - | - | - | - | - | - | - | - | - |
| Motor Cycle | - | - | - | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban Arterial - $60 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle Class | 1999 | 2002 | 2003 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 | 2014 |
| Car | 67 | 82 | 75 | 80 | 89 | 32 | 67 | 67 | 72 | 62 | 68 | 70 |
| Articulated | - | - | - | - | - | - | - | - | - | - | - | - |
| Rigid | - | - | - | - | - | - | - | - | - | - | - | - |
| S.D. Buses | - | - | - | - | - | - | - | - | - | - | - | - |
| Motor Cycle | - | - | - | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban National - $50 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle Class | 1999 | 2002 | 2003 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 | 2014 |
| Car | 94 | 97 | 98 | 89 | 82 | 86 | 78 | 83 | 82 | 85 | 82 | 76 |
| Articulated | 89 | 92 | 92 | 89 | 69 | 74 | 68 | 77 | 64 | 78 | 77 | 63 |
| Rigid | 85 | 85 | 96 | 80 | 77 | 72 | 64 | 73 | 64 | 76 | 73 | 56 |
| S.D. Buses | - | - | - | 79 | 74 | 80 | - | - | - | 89 | 77 | 61* |
| Motor Cycle | - | - | - | - | 88 | - | - | - | - | - | 100 | 75* |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban National - $60 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle Class | 1999 | 2002 | 2003 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 | 2014 |
| Car | - | - | - | - | - | - | - | - | - | - | 61 | 46 |
| Articulated | - | - | - | - | - | - | - | - | - | - | 29 | 31* |
| Rigid | - | - | - | - | - | - | - | - | - | - | 32 | 26 |
| S.D. Buses | - | - | - | - | - | - | - | - | - | - | 22 | 34* |
| Motor Cycle | - | - | - | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban Residential - 30 km/h |  |  |  |  |  |  |  |  |  |  |  |  |


| Vehicle <br> Class | 1999 | 2002 | 2003 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 | 2014 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Car | - | - | - | - | - | - | - | - | - | - | 57 | $49^{*}$ |
| Articulated | - | - | - | - | - | - | - | - | - | - | - | - |
| Rigid | - | - | - | - | - | - | - | - | - | - | - | - |
| S.D. Buses | - | - | - | - | - | - | - | - | - | - | - | - |
| Motor <br> Cycle | - | - | - | - | - | - | - | - | - | - | - | - |
| \begin{tabular}{l\|l|l|l|l|l|l|l|l|l|l|l|l|}
\hline
\end{tabular} |  |  |  |  |  |  |  |  |  |  |  |  |


| Rigid | - | - | - | - | - | - | - | - | - | - | 0 | $14^{*}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| S.D. Buses | - | - | - | - | - | - | - | - | - | - | - | - |
| Motor <br> Cycle | - | - | - | - | - | - | - | - | - | - | - | - |

*Small sample size; S.D. Buses = Single Decker Buses

## Appendix 3

Percentage Speeding (Rural) 1999 to 2014

| Motorway - 120 km/h |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vehicle Class | 1999 | 2002 | $\begin{aligned} & 200 \\ & 3 \end{aligned}$ | $\begin{aligned} & 200 \\ & 5 \end{aligned}$ | $\begin{aligned} & 200 \\ & 6 \end{aligned}$ | $\begin{aligned} & 200 \\ & 7 \end{aligned}$ | $\begin{aligned} & 200 \\ & 8 \end{aligned}$ | $\begin{aligned} & 200 \\ & 9 \end{aligned}$ | 2011 | 2012 | 2013 | 2014 |
| Car | 29 | 24 | 23 | 15 | 20 | 14 | 15 | 18 | 16 | 15 | 21 | 28 |
| Articulate d | 81 | 81 | 85 | 94 | 89 | 86 | 91 | 77 | 86 | 85 | 81 | $9^{\wedge}$ |
| Rigid | 74 | 82 | 83 | 88 | 85 | 70 | 83 | 72 | 84 | 78 | 77 | $6^{\wedge}$ |
| S.D. <br> Buses | - | - | - | 100 | 0 | 70 | 87 | 85 | 95 | 94 | 96 | 3 |
| Motor Cycle | - | - | - | - | - | - | - | - | - | - | 9 | 7* |
| Dual Carriageway - $100 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle Class | 1999 | 2002 | $\begin{aligned} & 200 \\ & 3 \end{aligned}$ | $\begin{aligned} & 200 \\ & 5 \end{aligned}$ | $\begin{aligned} & 200 \\ & 6 \end{aligned}$ | $\begin{aligned} & 200 \\ & 7 \end{aligned}$ | $\begin{aligned} & 200 \\ & 8 \end{aligned}$ | $\begin{aligned} & 200 \\ & 9 \end{aligned}$ | 2011 | 2012 | 2013 | 2014 |
| Car | 52 | 43 | 29 | 28 | 30 | 24 | 40 | 35 | 31 | 40 | 28 | 36 |
| Articulate d | 78 | 70 | 60 | 87 | 69 | 54 | 63 | 69 | 75 | 74 | 76 | 80 |
| Rigid | 65 | 67 | 55 | 78 | 68 | 48 | 59 | 61 | 59 | 69 | 70 | 62 |
| S.D. <br> Buses | - | - | - | 77 | 63 | 77 | 59 | 82 | 76 | 88 | 78 | 88* |
| Motor Cycle | - | - | - | - | - | - | - | - | - | - | 18 | 20* |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| National Primary Road - 100 km/h |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle Class | 1999 | 2002 | $\begin{aligned} & 200 \\ & 3 \end{aligned}$ | $\begin{aligned} & 200 \\ & 5 \end{aligned}$ | $\begin{aligned} & 200 \\ & 6 \end{aligned}$ | $\begin{aligned} & 200 \\ & 7 \end{aligned}$ | $\begin{aligned} & 200 \\ & 8 \end{aligned}$ | $\begin{aligned} & 200 \\ & 9 \end{aligned}$ | 2011 | 2012 | 2013 | 2014 |
| Car | 51 | 44 | 30 | 23 | 27 | 20 | 19 | 23 | 15 | 16 | 19 | 18 |
| Articulate d | 75 | 74 | 73 | 83 | 87 | 64 | 70 | 67 | 65 | 70 | 71 | 75 |
| Rigid | 66 | 61 | 72 | 76 | 76 | 48 | 57 | 57 | 52 | 53 | 60 | 64 |
| S.D. <br> Buses | - | - | - | 76 | 78 | 71 | 60 | 78 | 44 | 49 | 59 | 69* |
| Motor Cycle | - | - | - | - | - | - | - | - | - | - | - | 50* |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| National Secondary Road - $100 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle Class | 1999 | 2002 | $\begin{aligned} & 200 \\ & 3 \end{aligned}$ | $\begin{aligned} & 200 \\ & 5 \end{aligned}$ | $\begin{aligned} & 200 \\ & 6 \end{aligned}$ | $\begin{aligned} & 200 \\ & 7 \end{aligned}$ | $\begin{aligned} & 200 \\ & 8 \end{aligned}$ | $\begin{aligned} & 200 \\ & 9 \end{aligned}$ | 2011 | 2012 | 2013 | 2014 |
| Car | 18 | 16 | 14 | 9 | 13 | 4 | 10 | 8 | 6 | 6 | 9 | 8 |
| Articulate d | 19 | 37 | 34 | 48 | 58 | 25 | 49 | 41 | 31 | 32 | 37 | 47 |
| Rigid | 27 | 29 | 46 | 30 | 41 | 13 | 28 | 33 | 25 | 21 | 27 | 35 |


| S.D. <br> Buses | - | - | - | 38 | 20 | 16 | 19 | 26 | 15 | 10 | 24 | $29^{*}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Motor <br> Cycle | - | - | - | - | - | - | - | - | - | - | - | $67^{*}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Regional Roads - 80 km/h |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle <br> Class | 1999 | 2002 | 200 | 200 | 200 | 200 | 200 | 200 |  |  |  |  |
| ( |  |  |  |  |  |  |  |  |  |  |  |  |

*Small sample size; S.D. Buses = Single Decker Buses; ^ please see page 14 for methodological note

## Appendix 4

Breakdown of sites by road type and speed limit, 2014

| Road Type | Speed Limit <br> $\mathrm{km} / \mathrm{h}$ | Number of <br> Sites | Number of <br> Observations* |
| :--- | :---: | :---: | :---: |
| Urban Sites | 30 | 2 | 372 |
| Urban national | 50 | 5 | 1041 |
| Urban national | 60 | 3 | 645 |
| Urban national | 50 | 7 | 980 |
| Arterial | 60 | 7 | 979 |
| Arterial | 30 | 1 | 82 |
| Residential | 50 | 10 | 1338 |
| Residential | 50 | 2 | 319 |
| Regional | 50 | 1 | 149 |
| Local | 60 | 1 | 175 |
| Local | Total | 39 | 6080 |
| Rural Sites | 120 | 12 | 2972 |
| Motorway | 100 | 7 | 1802 |
| Dual Carriageway | 100 | 10 | 2169 |
| National Primary | 100 | 10 | 1783 |
| National Secondary | 80 | 5 | 747 |
| Regional | 80 | 7 | 790 |
| Local | Total | 51 | 10263 |
|  |  |  |  |

*All vehicles

## Note:

One rural site had a temporary speed limit in place and this site was excluded from the overall analysis.
It should be noted that in 2014, speed limits were reclassified on some of the survey sites.

## Appendix 5

## Survey Details

The same sites were chosen as in previous surveys, where the sites were chosen according to the following criteria:

- Long, straight sections of roadway;
- Carriageway of at least seven metres (except for urban residential);
- Sites where speed is relatively unaffected by geometry, traffic, traffic lights, traffic calming measures, junctions, road works or parking;
- Sites where it is feasible to drive faster than the speed limit.


## Methodology

Nationwide Data Collection (NDC) on behalf of the Road Safety Authority carried out national surveys in relation to traffic speeds in 2014. Survey results are used to monitor trends, determine the effectiveness of safety initiatives and to inform the on-going review of public policy in relation to road safety.

The methodology developed for and used by the Road Safety Authority in all previous surveys is applied to this survey. Speed surveys are conducted annually at randomly selected sites on the Irish road network to provide an estimate of the speed at which drivers choose to travel. The target population is the entire Irish road network. There were 52 rural road sites and 39 urban road sites surveyed.

On urban arterial roads, speeds were measured between 5.30am and 7.30am. However, in some locations in Dublin, few readings of vehicles were taken after 7.00am, as the traffic conditions could not be described as free-flowing. The speed measurements on residential roads were carried out in normal daylight hours (typically between 8.30am and 5.30pm). For national roads, the speeds of cars, rigid and articulated vehicles were recorded separately.

All surveys were carried out in dry conditions. Speed was measured with calibrated radar meters. Surveyors were instructed to choose vehicles in a random manner to avoid bias. Where a cluster of vehicles arrived together, the speed of the first vehicle only was taken. Every effort was made for surveyors to be as inconspicuous as possible. Surveyors had set targets for vehicle classes. They were instructed to continue surveying until either
a. these targets were reached or
b. for a maximum of 2.5 hours, whichever occurred earlier

Due to low sample sizes, no figures are provided for double decker buses and caution should be taken in the interpretation of results provided for single decker buses, as they are based on very limited sample sizes.

Legal speed limits by vehicle type

| Type of Vehicle | Built <br> up <br> Areas | Regional <br> or Local <br> Roads | Ordinary Speed <br> limit on National <br> Roads (Primary or <br> Secondary) | Ordinary <br> Speed limit <br> on a Dual <br> Carriageway | Ordinary <br> Speed limit <br> on a <br> Motorway |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Car or Motorcycle | 50 <br> $\mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{Km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ | $120 \mathrm{~km} / \mathrm{h}$ |
| Bus | 50 <br> $\mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| Bus (designed to <br> carry standing <br> passengers) | 50 <br> $\mathrm{~km} / \mathrm{h}$ | $65 \mathrm{~km} / \mathrm{h}$ | $65 \mathrm{~km} / \mathrm{h}$ | $65 \mathrm{~km} / \mathrm{h}$ | $65 \mathrm{~km} / \mathrm{h}$ |
| Truck | 50 <br> $\mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $80 \mathrm{~km} / \mathrm{h}$ | $90 \mathrm{~km} / \mathrm{h}$ |

Some drivers must obey speed limits for the particular vehicles they drive. If vehicle and road speeds are different, the driver must obey the lower of the two.

Methodological note: There was change in speed limits for vehicles with a design gross weight of more than $3,500 \mathrm{~kg}$ on motorways from $80 \mathrm{~km} / \mathrm{h}$ to $90 \mathrm{~km} / \mathrm{h}$. This change has resulted in a large drop in the numbers of rigid and articulated vehicles recorded as speeding on motorways and should be taken into account when quoting the historic figures.


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