

# Free Speed Survey 2008 (Urban and Rural)



Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre  
Road Safety Authority

## Free Speed Survey 2008 (Urban and Rural)

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## Executive Summary

A nationwide observational free speed survey on Irish roads was conducted in 2008 by the Road Safety Authority (RSA).

Although speed is a demonstrated road collision causal factor, in 2008, the percentage of drivers exceeding speed limit ranged from 16% to 86% depending on the road type and posted speed limit. Furthermore, the percentage of drivers found breaking the speed limit by 10 km/h or more ranged between 3% and 47%, depending on the road type.

The survey found a significant improvement in the percentage of vehicles complying with speed limits on urban national and urban residential roads. However, overall driver compliance with speed limits on urban roads is still poor. On average, 3 out of 5 motorists exceeded the posted speed limit in urban areas.

There was no significant change in the percentage of cars complying with speed limits on motorways, national primary and regional roads in 2008, with the percentage of free-speeding cars breaking the posted limit on motorways rising marginally from 14% in 2007 to 15% in 2008, decreasing from 20% to 19% on national primary roads, and remaining at 34% on regional roads in 2008 (same as 2007).

Average car free speed was 107km/h on motorways, 96km/h on dual carriageways, 91km/h on two-lane national primaries, 81km/h on two-lane national secondary roads, 76km/h on regional roads and 69km/h on local roads.

The proportion of cars exceeding the speed limit on urban national roads (in 50km/h zones) fell from 86% in 2007 to 78% in 2008. There was a significant decrease in the percentage of cars exceeding the 50km/h speed limit in urban residential areas, dropping from 23% in 2007 to 4% in 2008.

The proportion of articulated vehicles and rigid trucks violating vehicle specific speed limits has increased on motorways, dual carriageway, national primary and national secondary roads but has decreased on regional and local roads in 2008.

***A significant improvement in the percentage of vehicles complying with speed limits on urban national and urban residential***

***65% of articulated drivers surveyed on Irish roads in 2008 were speeding***

***Significant improvement in speed compliance for rigid trucks on regional and local roads***

## **A. Key Findings of the Free Speed Survey 2008**

Rural Roads are the following:

- Motorways;
- Dual carriageways;
- National primary roads;
- National secondary roads;
- Regional roads;
- Local roads.

Urban Roads are the following:

- Urban national at the 50 km/h speed limit;
- Arterial in 50 km/h speed zones;
- Arterial in 60 km/h zones;
- Residential in 50 km/h zones.

### **1) CARS**

#### **Overview**

- In 2008, a total of 11,935 cars were surveyed on the road network in Ireland. 37% (4,428) of cars surveyed were travelling on urban roads. 63% of cars observed were travelling on rural roads;
- 22.6% of all cars observed on rural roads were speeding (i.e. driving at a speed greater than the posted speed limit);
- 61% of all cars observed on urban roads were speeding.

#### **Rural Roads**

- On rural roads, the average free speed of cars was below the speed limit on all road types;
- 22.6% of the cars observed on rural roads were travelling at a speed more than the posted speed limit.
- On rural roads the modal (more frequent) car speed range is between 110-120km/h on motorways, 90-100 km on dual carriageways and national primary, 80-90km/h on national secondary roads, 70-80 km/h on regional and local roads (see Figure 6 to 11).
- On dual carriageways and national secondary roads, the proportion of cars complying with speed limits has reduced compared with 2007 survey results;

- However, the proportion of cars complying with speed limits on motorways, dual carriageways, national primary and national secondary roads has increased since 1999;
- On motorways, 83% of cars travelled at less than the speed limit;
- On dual carriageways, 57.8% of cars travelled at less than the speed limit;
- Compliance was higher on national primary roads where 78% of cars travelled at less than the 100km/h speed limit and on national secondary roads where 89% of cars drove at less than the speed limit;
- On regional roads, just over 3 out of 5 cars travelled at less than the speed limit. However, 5% of car drivers exceeded the limit of 80km/h by more than 20km/h;
- Compliance was also high on local roads with 4 out of 5 car drivers travelling at less than the speed limit.

### **Urban Roads**

- 77.8% of car drivers surveyed exceeded the 50km/h limit on urban national roads, a decrease of 8% on 2007 figures;
- However, 53% of these drivers exceeded the speed limit by 10km/h or more;
- The average speed of cars on urban national roads was about 10 km/h above the 50 km/h posted speed limit. Furthermore, only 19.9% of drivers were observed travelling below the speed limit and 6.3% were travelling between 80 and 100 km/h.
- On urban arterial roads with a 50km/h speed limit, the number of cars exceeding the speed limit increased from 40% in 2007 to 70% in 2008;
- In urban residential areas with a 50km/h speed limit, the number of cars exceeding the speed limit fell from 23% to 4%;
- Most cars observed on urban residential roads, within a 50km/h speed limit were travelling at 50km/h or under. The average car travel speed on urban residential roads was 35 km/h with a standard deviation of 8.4 km/h;
- 29% of car drivers surveyed on urban arterial roads travelled under the speed limit when in 60 km/h zones.

## **2) ARTICULATED VEHICLES**

### **Rural Roads**

- In 2008, a total of 1,296 articulated vehicles were observed on the road network in Ireland. 82% of articulated trucks observed were on rural roads (i.e. motorways, dual carriageways national primary and national secondary roads, regional and local roads);
- The average free speed for articulated trucks was above the vehicle specific speed limits on all road types except national secondary and regional roads. It should be remembered that speed limits of 80 km/h apply to such vehicles rather than the speed limit applicable to the road;
- 65% of all articulated trucks observed on rural roads were speeding (i.e. driving at a speed greater than 80km/h). Articulated vehicles are subject to an 80 km/h speed limit on rural roads;
- The most frequent articulated vehicle speed range on rural roads is between 80-90km/h on motorways, dual carriageways, national primary and secondary roads, 60-80km/h on regional and local roads;
- There was an increase from 25% in 2007 to 49% in 2008 in the number of articulated vehicles exceeding the speed limit on two lane secondary roads;
- However, on regional roads, speeds for articulated vehicles decreased;
- On motorways, 91% of articulated vehicles were travelling between 80 and 100km/h, 2% travelled between 100-120km/h, while 32% travelled under the speed limit of 80km/h on dual carriageways;
- 68% of articulated drivers on dual carriageways were driving between 80 and 100 km/h.

### **Urban Roads**

- On urban national roads, within a 50km/h speed limit, 68% of articulated vehicles exceeded 50km/h, 37% of the articulated vehicles were travelling between 60 and 80km/h, and 2% were travelling between 80 and 100 km/h;

## **3) RIGID VEHICLES**

- In 2008, a total of 3,108 rigid vehicles were observed on the road network in Ireland. 83% of rigid trucks observed were on rural roads

(i.e. motorways, dual carriageways national primary and national secondary roads, regional and local roads);

### **Rural Roads**

- 54% of all rigid trucks observed on rural roads were speeding (i.e. driving at a speed greater than 80km/h). Rigid vehicles are subject to an 80 km/h speed limit on rural roads;
- The 2008 survey saw an increase in speed violations for rigid trucks on all roads except regional and local roads where there was a significant improvement in speed compliance;
- For rigid trucks, the average free speed was above the vehicle specific speed limit for all roads except that on national secondary, regional and local roads;
- On motorways, 83% of rigid vehicles were travelling between 80 and 100km/h, 4% travelled between 100-120km/h, while 37% travelled under 80km/h on dual carriageways;
- The most frequent rigid vehicle speed range seen on rural roads was between 80-100km/h on motorways and 80-90km/h on dual carriageways, national primary and 70-90km/h on national secondary roads and regional roads;

### **Urban Roads**

- On urban national roads, within a 50km/h speed limit, 64% of rigid vehicles exceeded 50km/h and 38% of the rigid vehicles were travelling between 60 and 80km/h;

## **4) BUSES**

- In 2008, a total of 360 single deck buses were surveyed on the road network in Ireland. All the buses observed were on rural roads (i.e. motorways, dual carriageways national primary and national secondary roads, regional and local roads);
- 57% of all single deck buses observed on rural roads were speeding (i.e. driving at a speed greater than 80km/h);
- The average free speed of single deck buses on national roads in rural areas differed in relation to the quality of the road;
- On the better primary roads the average free speed was higher than the 80 km/h permitted for such a vehicle while on national secondary roads the speeds were lower than the speed limit.



## **B. Definitions**

### **Free Speed**

Free speed is the speed at which drivers choose to travel when unconstrained by road geometry (e.g. sharp bends), weather conditions (e.g. rain) or traffic conditions (e.g. congestion).

Free speeds only are measured in this survey and therefore the average speed computed from these surveys would considerably overestimate the speed on the road network, as constrained vehicles tend to travel at lower speeds.

### **85<sup>th</sup> Percentile**

The 85th percentile speed is the speed at or below which 85% of the motorists drive on a given road unaffected by slower traffic or poor weather. This speed indicates the speed that most motorists on the road consider safe and reasonable under ideal conditions. It is a good guideline for the appropriate speed limit for that road.

### **Road Classifications in the Republic of Ireland**

Roads are the dominant mode of transport in Ireland accounting for 96% of passenger traffic and 89% of freight transport.

National roads consist of National Primary and National Secondary roads and while they account for only 6% of the total road network, they carry over 45% of traffic. A national road (including a motorway) is denoted by the letter N or M (e.g. N7, M50).

- National Primary roads are major long distance through-roads linking the principal ports/airports, cities and large towns;
- National Secondary roads are medium distance through-roads connecting important towns and linking up to the national primary roads.

Non-national roads consist of regional roads and local roads which are important as our low density of population creates a high dependence on the local roads system. A non-national road is denoted by the letter L or R (e.g. L3421, R416).









- Regional roads provide the main links between national roads;
- Local roads include all other urban and rural roads. Regional and local roads account for 94% of the total road network and they carry over 55% of traffic;

- Arterial roads are high-capacity roadways controlled by traffic signals, with access via cross-streets and often adjoining driveways. For this study, they can be regarded as the stretch of roads before entering towns and villages. They are generally identified by either a 50 km/h or a 60 km/h speed limit.
- Residential roads are roads which go through business, shopping and residential areas of cities and towns. A default speed limit of 50 km/h applies to such roads and is sometimes referred to as a “build up speed limit”. As these are default speed limits on these roads, there are not always indicated by a speed limit sign.

## C. Speed Limits

### Speed Limits for Road Types

All public roads have speed limits. In most cases, a 'default' speed limit applies. This automatically applies to a particular type of road if there is no speed limit sign to show otherwise. The table below sets out the default speed limits for different roads under the Road Traffic Act 2004.

	Type of road		Speed limit
	Motorway, (Blue Signs - M numbers)		120km/h
	National roads (primary and secondary) (Green Signs - N numbers)		100km/h
	Non-national roads (regional and local) (White Signs - R or L numbers)		80km/h
	Roads in built-up areas, such as cities, towns and boroughs		50km/h

Local authorities can apply special speed limits to any of these roads, for example, at particular times such as:

- When children are entering or leaving schools;
- On different sides of a dual carriageway;
- At selected locations such as a tunnel, where the limit may be lowered if one lane is closed;
- Where there is a series of bends;
- At roadworks.

If the local authority sets a special speed limit, you will see one of the following signs.



### Speed limits for vehicles

Some drivers must obey speed limits for their vehicles as well as speed limits for the roads on which they are travelling. The table below outlines the speed limits that apply to different vehicles.

Vehicle speed limit	Type of vehicle to which it applies	
80 kilometres an hour (80km/h)	<ul style="list-style-type: none"> <li>A vehicle that can carry more than 8 passengers, apart from the driver, but does not carry any standing passengers</li> </ul>	
80 kilometres an hour (80km/h)	<ul style="list-style-type: none"> <li>A goods vehicle with a design gross vehicle weight of more than 3,500 kilograms</li> </ul>	
80 kilometres an hour (80km/h)	<ul style="list-style-type: none"> <li>Any vehicle towing a trailer, caravan, horsebox or other attachment</li> </ul>	
65 kilometres an hour (65km/h)	<ul style="list-style-type: none"> <li>Any double-deck bus or double-deck coach</li> </ul>	
65 kilometres an hour (65km/h)	<ul style="list-style-type: none"> <li>A single deck bus carrying standing passengers</li> </ul>	

## **D. Background to the Annual Speed Survey**

### **Moving From Imperial to Metric**

The conversion to a metric speed system (km/h) in January 2005 from the old imperial system (mph) resulted in a major change in speed limits in the state. As well as the change to kilometres, the specific speed limits and vehicle-specific speed limits were amended to reflect the changing road transport system.

The speed limit on motorways changed from 70mph to 120km/h (equivalent to 75 mph); on dual carriageways and national roads from 60 mph to 100 km/h (62 mph); on inter-urban regional and local roads from 60 mph to 80 km/h (50 mph). In terms of urban areas, the 30 mph speed limit was changed to 50 km/h (equivalent to 31 mph), and the 40 mph speed limit to 60 km/h (37 mph).

In addition to these road type specific speed limit changes, vehicle-specific speed limits were also changed to km/h. The speed limits applying to single-deck buses, towing vehicles and trucks (over 3,500 kg gross weights) were changed from 50 mph to 80 km/h, while the speed limit applicable to double deck buses went from 40 mph to 65 km/h.

### **Why Monitor Free Speed?**

The speed surveys are designed to monitor changes in the free speeds of vehicles in both urban and rural areas. Free speeds are speeds 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). This survey measures drivers' choice of speed and provides us with information on the effectiveness of speed enforcement measures. The survey provides valuable information for benchmarking the targets set for speeding in the Road Safety Strategy 2007-2012 (outlined on P.15).

This survey was taken a full 42 months after the date of the metric introduction and drivers would be expected to more familiar and more used to the new limits in 2008 than they were in 2005, 2006 and 2007.

The Road Safety Authority carried out national surveys in relation to seat belt wearing and traffic speeds in 2006, 2007 and 2008. The methodology developed for and used by the National Roads Authority in all previous surveys is applied to this survey. 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 findings of this survey have an added value in that it is the basis for benchmarking the targets set for speeding in the Road Safety Strategy 2007-2012.

## SPECIFIC TARGET

### **Cars and Motorcycles**

- *To increase compliance with speed limits on urban national roads (at 50 km/h sign) from 18% to 60% or better by 2012.*
- *To increase speed limit compliance on urban arterial roads from 14% to 60% or better in 50 km/h zones and from 11% to 60% or better in 60 km/h zones by 2012.*
- *To increase speed limit compliance on regional roads from 84% to 90% or better by 2012.*
- *To increase compliance on 2-lane national primary roads from 74% to 90% or better by 2012.*

### **Heavy Goods Vehicles and Buses**

- *To increase articulated vehicles' compliance with speed limits on urban national roads (at 50 km/h sign) from 33% to 70% or better by 2012 and to increase rigid vehicles' compliance on the same roads from 23% to 70% or better.*
- *To increase speed limit compliance by articulated vehicles on 2-lane national roads from 13% to 60% or better by 2012 and to increase compliance of rigid vehicles from 24% to 60% or better over the same time period.*
- *To increase both rigid and articulated vehicles' compliance with speed limits on regional roads to 95% or better by 2012.*
- *To increase the percentage of single deck buses complying with speed limits on 2-lane national roads to 85% or better by 2012.*

## **E. Free Speed Survey - Methodology**

Speed surveys are conducted annually at randomly selected sites on the Irish road network to provide an estimate of the speed that drivers choose to travel at. There are about 60 rural road sites and 36 urban road sites surveyed each year. The current sites have been surveyed since 1999. The target population is the entire Irish road network. It is divided into two subpopulations of special interest:

- Urban:
  - Urban national at the 50 km/h speed limit;
  - Arterial in 50 km/h speed zones;
  - Arterial in 60 km/h zones;
  - Residential in 50 km/h zones.
- Rural:
  - Motorways;
  - Dual carriageways;
  - National primary roads;
  - National secondary roads;
  - Regional roads;
  - Local roads.

The survey sites comprise of:

- Urban:
  - Urban Arterial Roads in 50/60 km/h zones (15 locations);
  - Urban National Roads at 50 km/h speed sign (10 locations: 5 Primary, 5 Secondary);
  - Urban Residential Roads in 50 km/h (11 locations).
- Rural:
  - Motorways (10 locations);
  - Dual Carriageway (10 locations);
  - National Primary (10 locations);
  - National Secondary (10 locations);
  - Regional Roads (10 locations);
  - Local Roads (10 locations).

The location details are given in the appendix.

The free speeds surveys were carried out in November 2008. The locations chosen and methodology used were similar to those used in the equivalent 1999, 2002, 2003, 2005, 2006 and 2007 surveys. The speeds measured for this survey reflect free speeds.

The surveys were carried out at the designated locations during working hours (9.30am 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.

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 9.30am and 5.30pm).

The road classes surveyed were:

- Urban national roads at the 50 km/h speed limit;
- Arterial roads in 50 km/h speed zones;
- Arterial roads in 60 km/h zones;
- Residential roads in 50 km/h zones;
- Motorways;
- Dual carriageways;
- National single lane roads (primary and secondary);
- Regional roads;
- Local roads.

Free speeds were only measured for cars on arterial and residential roads (due to a relative shortage of single / double deck buses, rigid or articulated vehicles on these roads during surveying hours).

For urban national roads, the speeds of cars, single deck buses, double deck buses, rigid and articulated vehicles were recorded separately with measurements taken at the 50 km/h sign on inbound traffic only.

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

All surveys were carried out in dry conditions and surveyors were instructed to choose vehicles in a random manner to avoid bias. Where a cluster of vehicles arrived together, only the speed of the first vehicle was taken.

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.

Speed was measured with radar metres. Effort was made for surveyors to be as inconspicuous as possible. For national roads, the speeds of cars, rigid and articulated vehicles were recorded separately.



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 either type of bus 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). Surveyors were instructed to continue until the target for each vehicle class was reached or for a maximum of 2.5 hours, whichever occurred earlier.

# 1. Free Speed Survey 2008 - Cars

## 1.1 Overview

A total of 11,935 cars were surveyed on the road network in Ireland in 2008. 37% (4,428) of cars surveyed were on urban roads (i.e. urban national at the 50 km/h speed limit, arterial in 50 km/h speed zones, arterial in 60 km/h zones and residential in 50 km/h zones). 61% of all cars observed on urban roads were speeding (i.e. driving at a speed greater than posted speed limit).

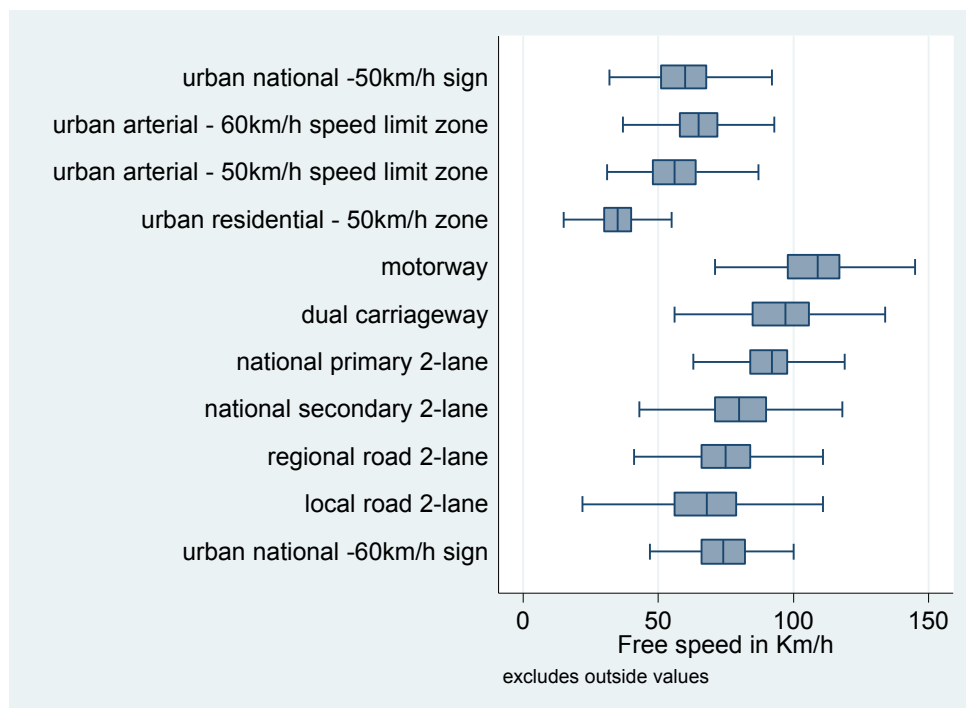
63% of cars surveyed were on rural roads (i.e. motorway, dual carriageways national primary and national secondary roads, regional and local roads). 22.6% of all cars observed on rural roads were speeding.

Table 1.1 gives a breakdown of the relative level of car driver violations by speed limit for all road types in 2008.

**Table 1.1: Relative level of car driver violations by speed limit in 2008**

Road	Speed limit (Km/h)	Mean violation (Km/h)	Ratio violation/speed limit
Urban Residential (50km/h)	50	5.8	0.12
Urban National (50km/h)	50	14.6	0.29
Urban Arterial (60km/h)	60	11.4	0.19
Urban Arterial (50km/h)	50	13.2	0.26
Regional Road (80km/h)	80	10.8	0.14
National Secondary (100km/h)	100	7.9	0.08
National Primary (100km/h)	100	7.9	0.08
Motorway (120km/h)	120	6.6	0.06
Local Road (80km/h)	80	11.1	0.14
Dual Carriageway (100km/h)	100	9.9	0.10

**Figure 1.1: Box plot of cars free speed by road types in 2008**



## 1.2 Overview of Free Speed by Road Type

The overall free speed distribution of cars on different road types is shown in Sections 1.3 and 1.4.

On urban roads, the proportion of cars exceeding the speed limit on arterial roads with a 50 km/h limit increased from 40% in 2007 to 70% in 2008. However, in residential areas with a 50km/h speed limit, the proportion of cars speeding fell to 4% from 23% in 2007.

The number of cars exceeding the 50km/h speed limit in urban national areas also decreased from 86% in 2007 to 78% in 2008 (Figure 1.3a).

On rural roads the modal (more frequent) car speed range is between 110-120km/h on motorways, 90-100 km on dual carriageways and national primary, 80-90km/h on national secondary roads, 70-80 km/h on regional and local roads (see Section 1.4).

The survey also found that car drivers are more likely to exceed a low speed limit by a wider margin than a high speed limit (see Table 1.1).

## 1.3 Free Speed on Urban Roads

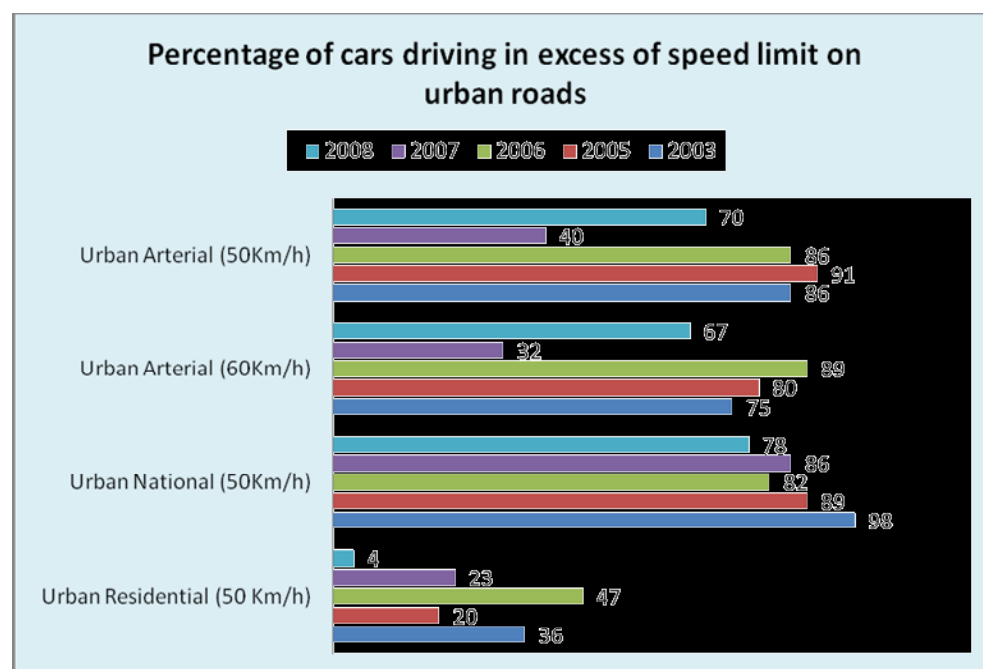
On urban national roads with a 50km/h speed limit, 77.8% of car drivers exceeded the speed limit; 53% of cars exceeded the speed limit on these roads by 10km/h or more. The average speed of cars on urban national roads was about 10km/h above the 50 km/h posted speed limit. Moreover, only

19.9% of drivers were observed travelling below the speed limit and 6.3% were travelling between 80 and 100 km/h.

Most cars observed on urban residential roads with a 50km/h speed limit were travelling at 50km/h or under. The average car travel speed on urban residential roads was 35km/h with a standard deviation of 8.4 km/h.

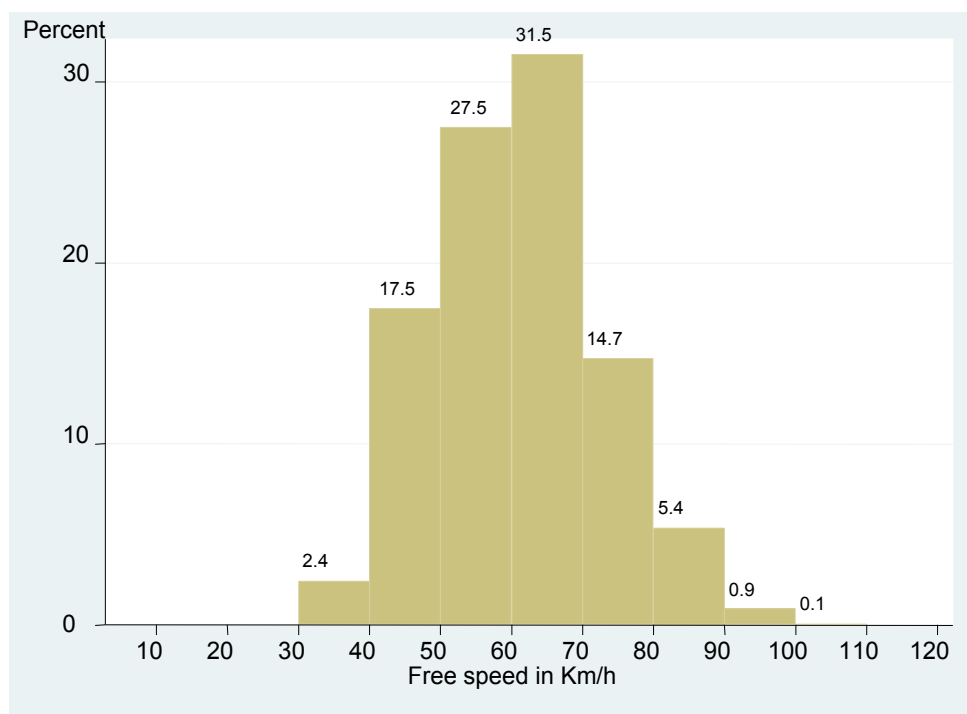
On arterial roads in urban areas, 28% of cars were travelling under the speed limit in 50km/h zones, 32% travelled between 50-60km/h, while 29% travelled under the speed limit when in 60 km/h zones.

**Figure 1.3a: Percentage of cars exceeding speed limit, 2003-2008**



*A significant proportion of vehicles travel at high speed on urban national roads*

**Figure 1.3b: Distribution of cars free speed on urban national roads in 2008**

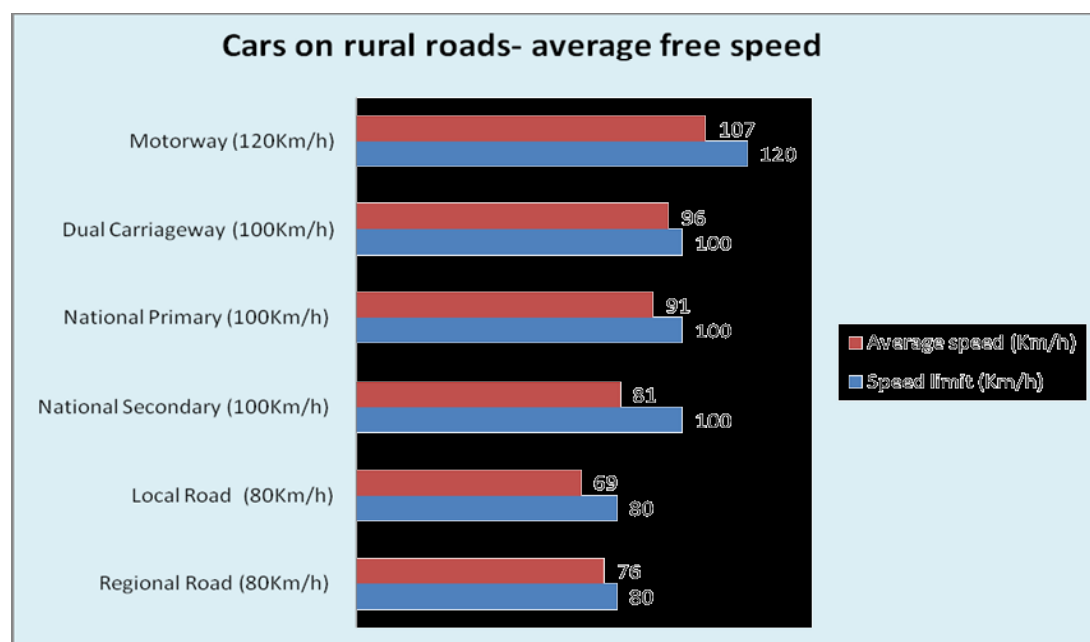


**23% of cars  
observed on  
roads in rural  
areas were  
speeding**

## 1.4 Free Speed on Rural Roads

On rural roads, the average free speed of cars was below the speed limit on all road types. The average car speed on rural roads was 88.4km/h with a standard deviation of 18.7km/h (see Figure 1.4a).

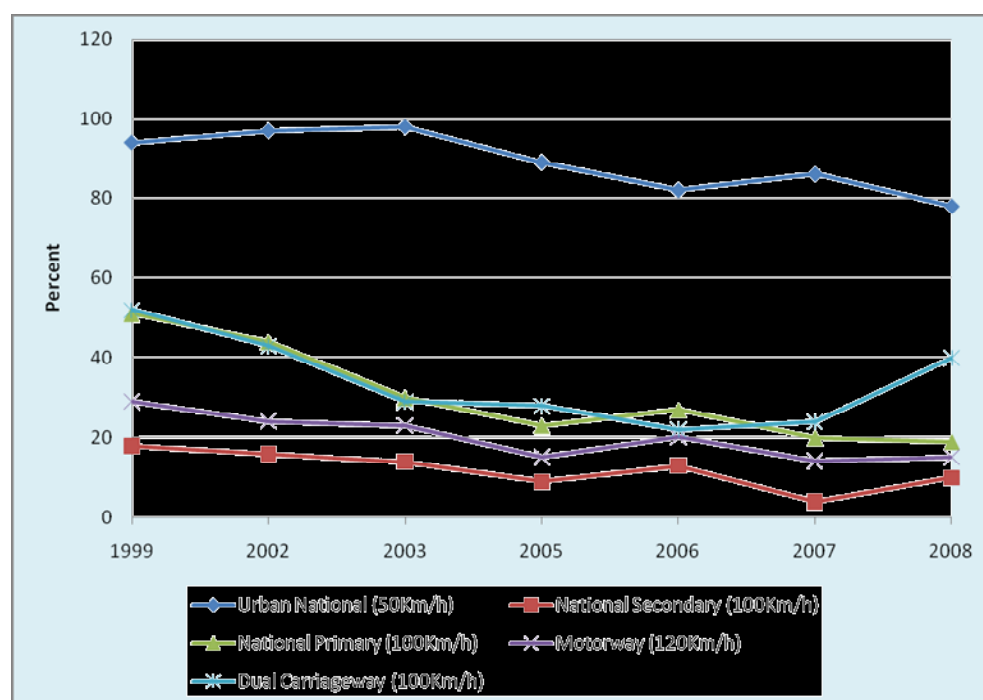
**Figure 1.4a: Cars average free speed on rural roads in 2008**



The 85th percentile value of car speed on rural roads was 109km/h. 23% of cars were observed travelling at speeds more than the posted speed limit on roads in these areas.

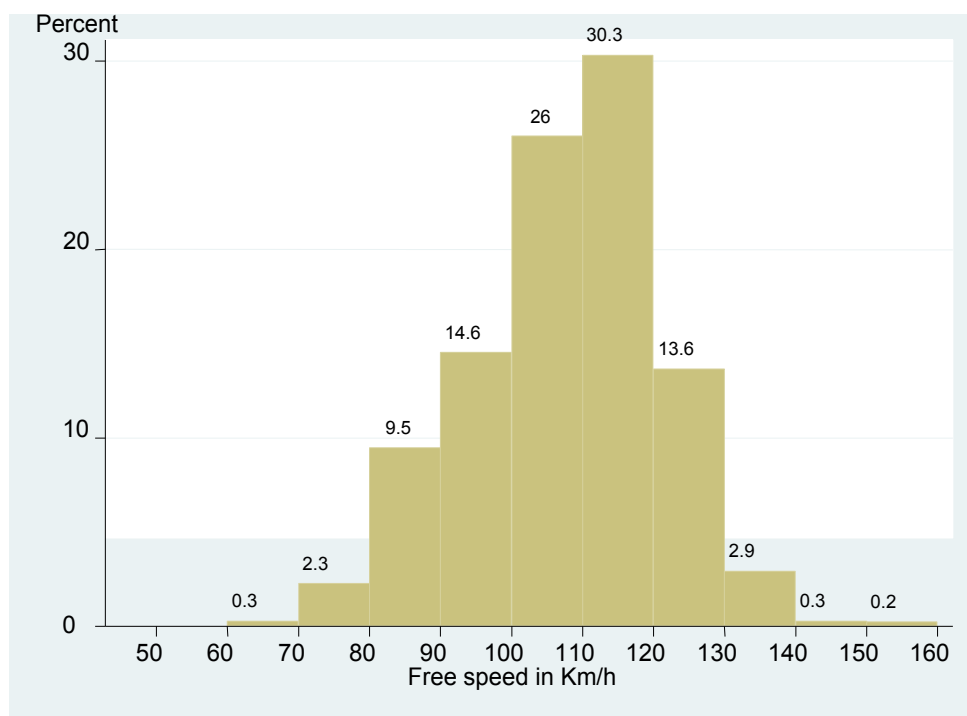
On motorways, dual carriageways, national primary and national secondary roads, the proportion of cars complying with speed limits has increased since 1999. However, on dual carriageway and national secondary roads, the proportion of cars complying with speed limits has reduced compared with 2007 survey results (Figure 1.4b).

**Figure 1.4b: Percentage of cars exceeding speed limit on rural roads, 1999-2008**



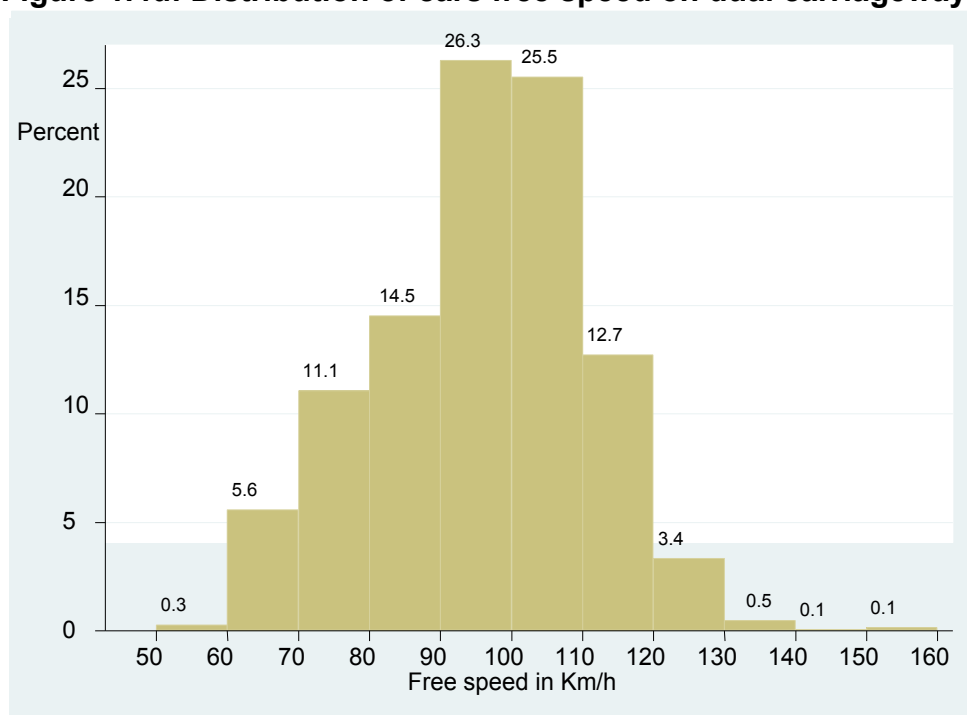
On motorways, 83% of cars travelled at speeds less than the posted limit for that type of road (120km/h). However, over 3% of cars travelled at speeds above 130km/h (see Figure 1.4c).

**Figure 1.4c: Distribution of cars free speed on motorways in 2008**



On dual carriageways where a speed limit of 100km/h applies, 57.8% of cars travelled below the speed limit. However, over 4% of cars travelled at speeds of between 120km/h and 160km/h (see Figure 1.4d).

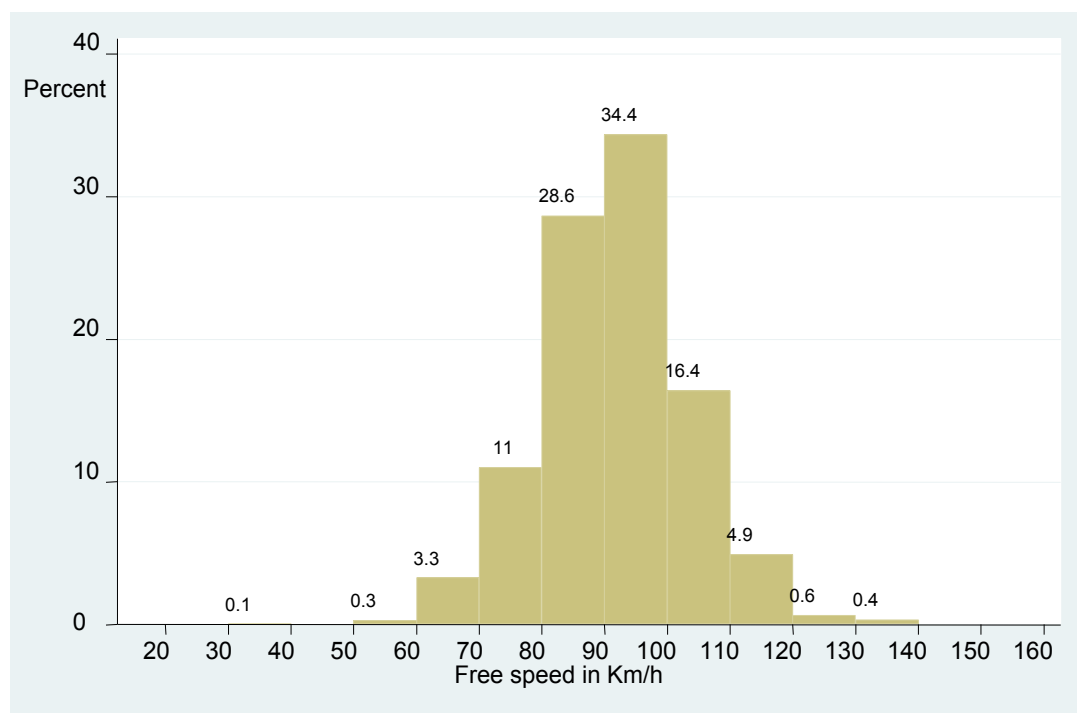
**Figure 1.4d: Distribution of cars free speed on dual carriageways in 2008**





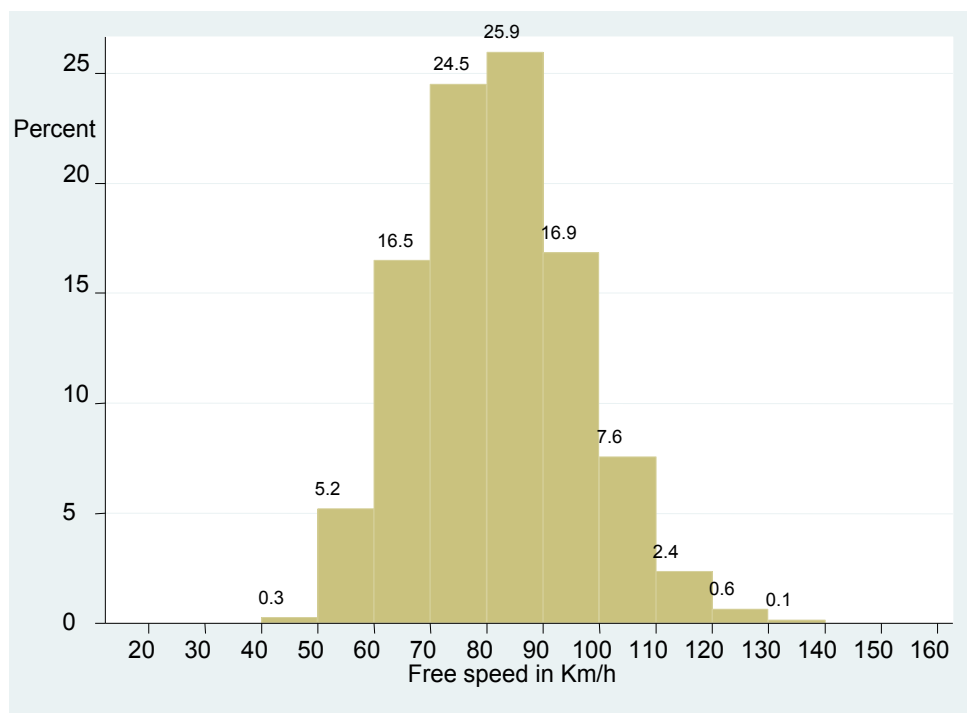
Compliance with the speed limit was higher on national primary roads where 77.7% of cars travelled below the speed limit (100 km/h).

**Figure 1.4e: Distribution of cars free speed on national primary roads in 2008**



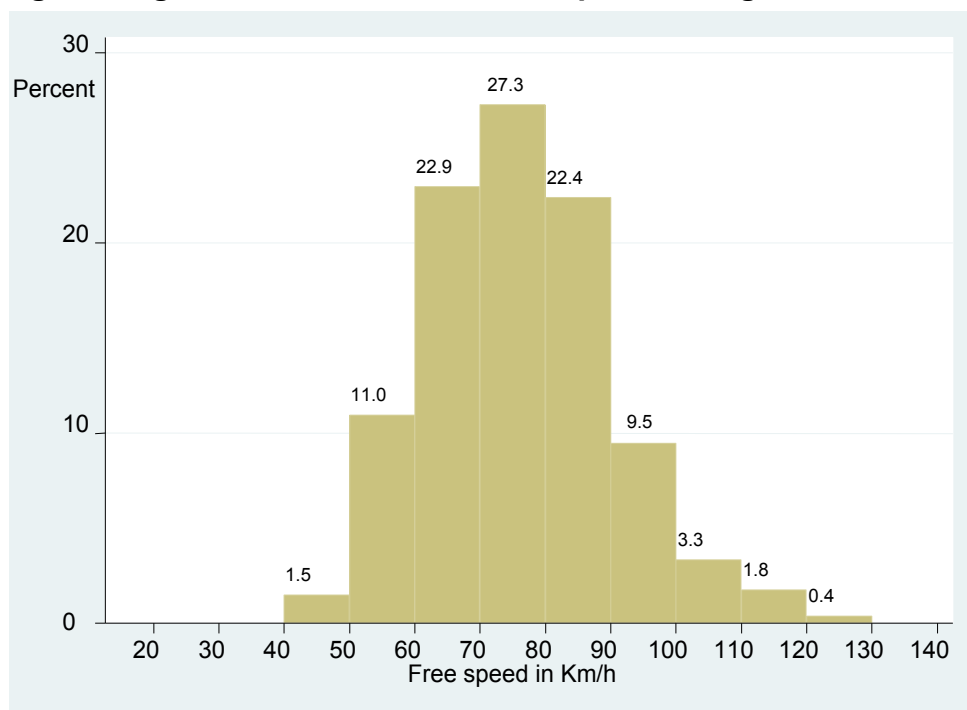
Compliance with the speed limit on national secondary roads where the same speed limit applies was even greater at 89.3% of cars travelling below the speed limit.

**Figure 1.4f: Distribution of cars free speed on national secondary roads in 2008**



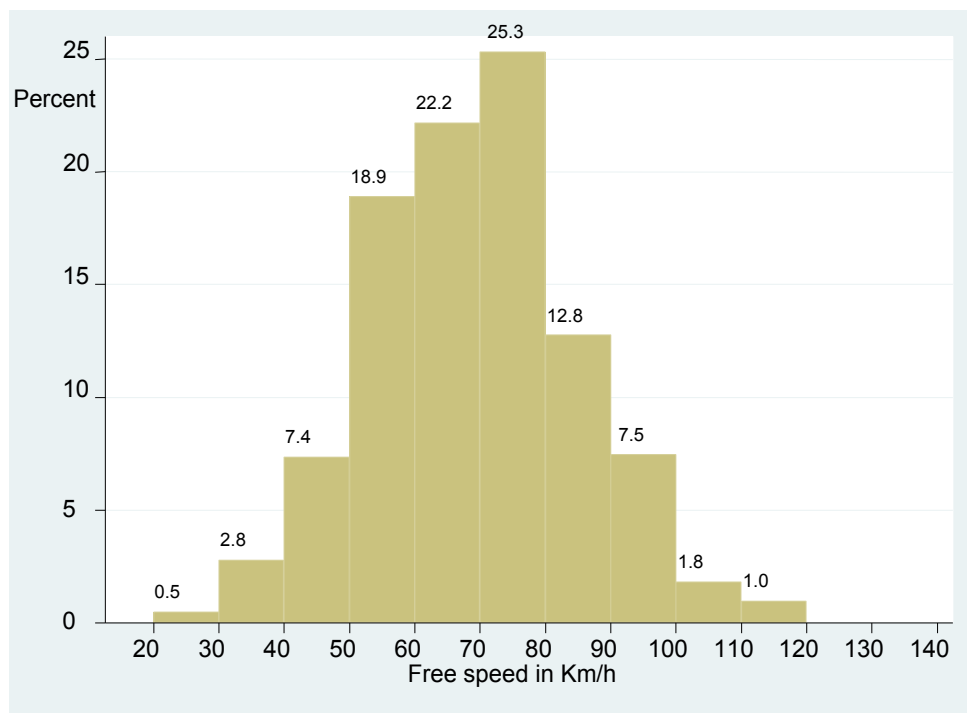
On regional roads, just over 3 out of 5 (62.7%) cars travelled at less than the speed limit of 80km/h with over 5% of cars breaking the speed limit by more than 20km/h.

**Figure 1.4g: Distribution of cars free speed on regional roads in 2008**



On local roads where a speed limit of 80km/h also applies, almost 8 out of 10 (77.1%) cars travelled at less than the speed limit.

**Figure 1.4h: Distribution of cars free speed on local roads in 2008**



The distribution of cars free speed on regional roads was nearly identical to that found on local roads (see Figures 1.4g and 1.4h).

## 2 Free Speed Survey 2008 – Articulated Vehicles

### 2.1 Overview

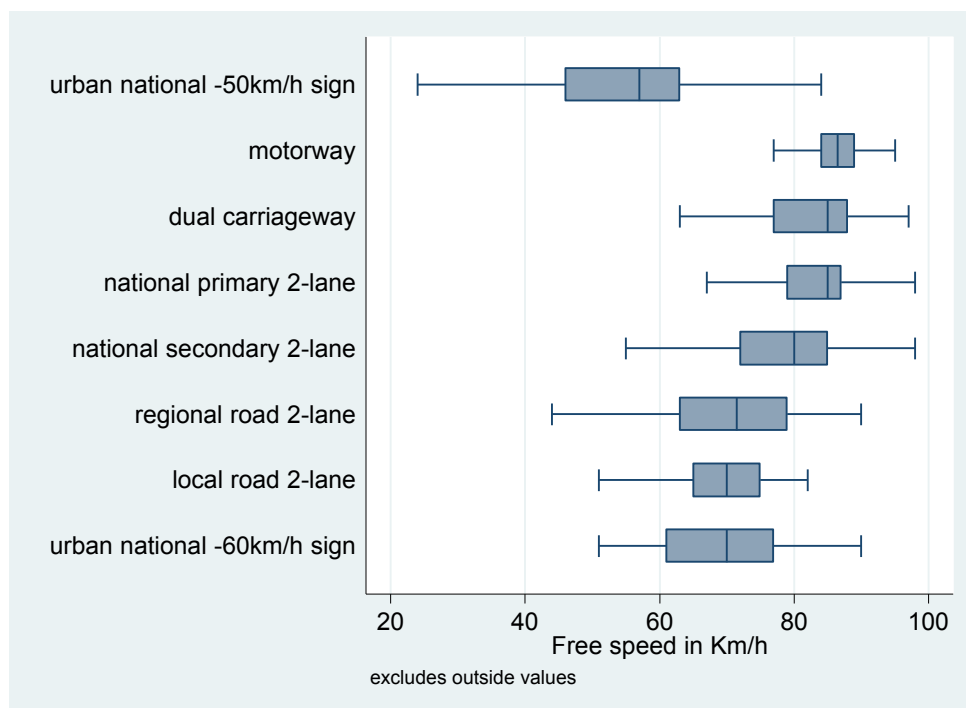
In 2008, a total of 1,296 articulated vehicles were observed on the road network in Ireland. Surveys were spread over about 60 rural sites and 10 urban sites. 82% of articulated trucks observed were on rural roads (i.e. motorways, dual carriageways national primary and national secondary roads, regional and local roads). 65% of all articulated trucks observed on rural roads were speeding (i.e. driving at a speed greater than 80km/h). The articulated vehicles are subject to an 80 km/h speed limit on rural roads.

**65% of articulated drivers surveyed on all roads were speeding**

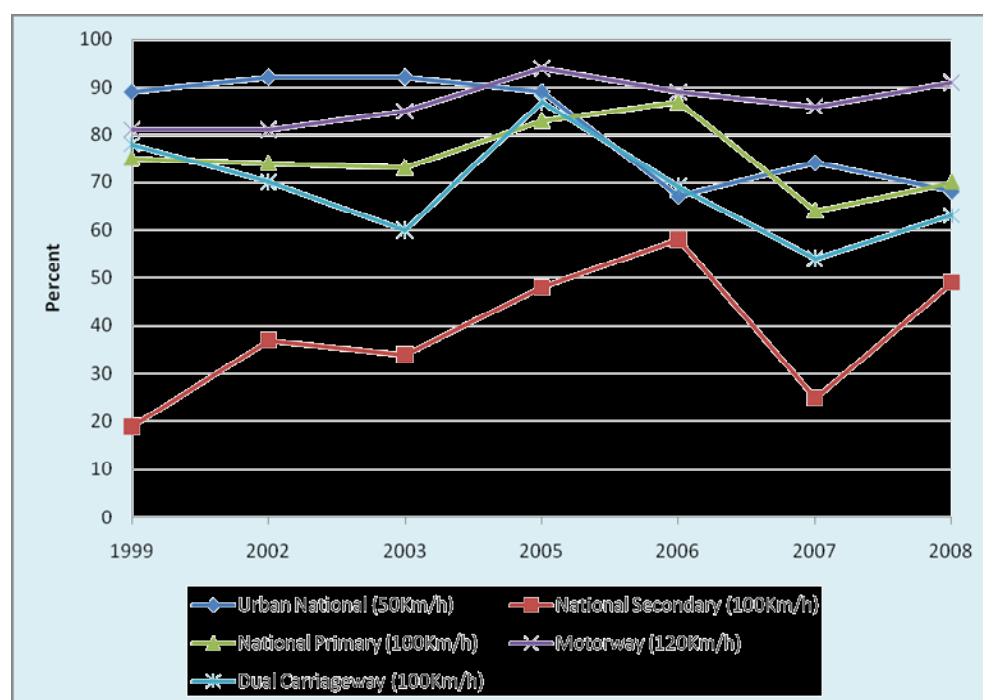
### 2.2 Overview of Free Speed by Road Type

In 2008, the proportion of articulated vehicles breaking the speed limit on motorways, dual carriageways (80km/h for these type of vehicles), and two lane national primary and secondary roads increased on 2007 figures (Figure 13). The most significant increase was seen on secondary roads where the number of articulated vehicles speeding increased from 25% in 2007 to 49% in 2008. However on regional roads, speeds for articulated vehicles decreased from 30% in 2007 to 21% in 2008.

**Figure 2.2a: Box plot of articulated vehicles free speed by road types in 2008**

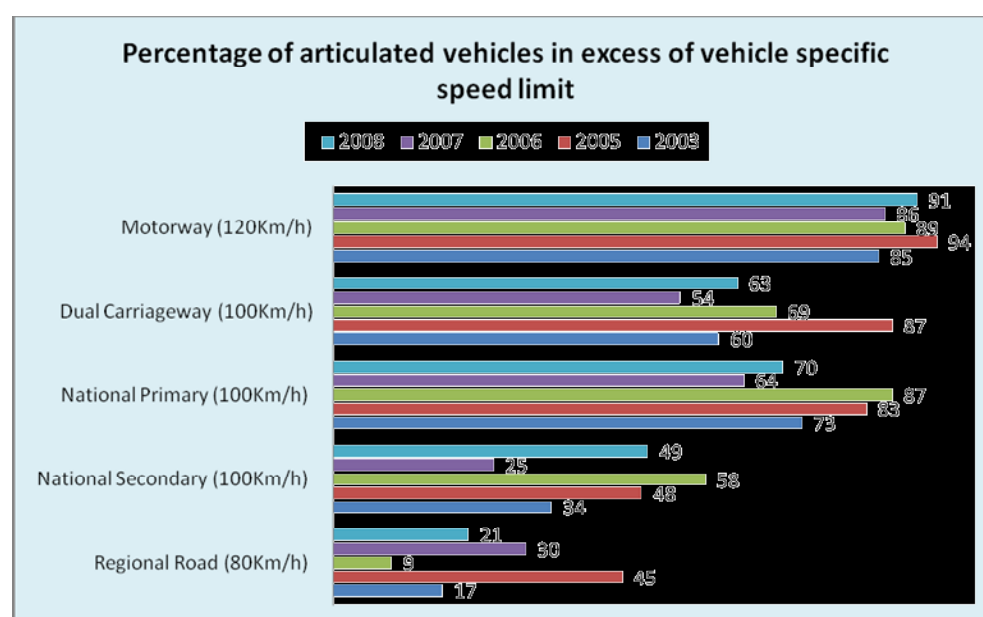


**Figure 2.2b: Percentage of articulated vehicles exceeding vehicle specific speed limit, 1999-2008**



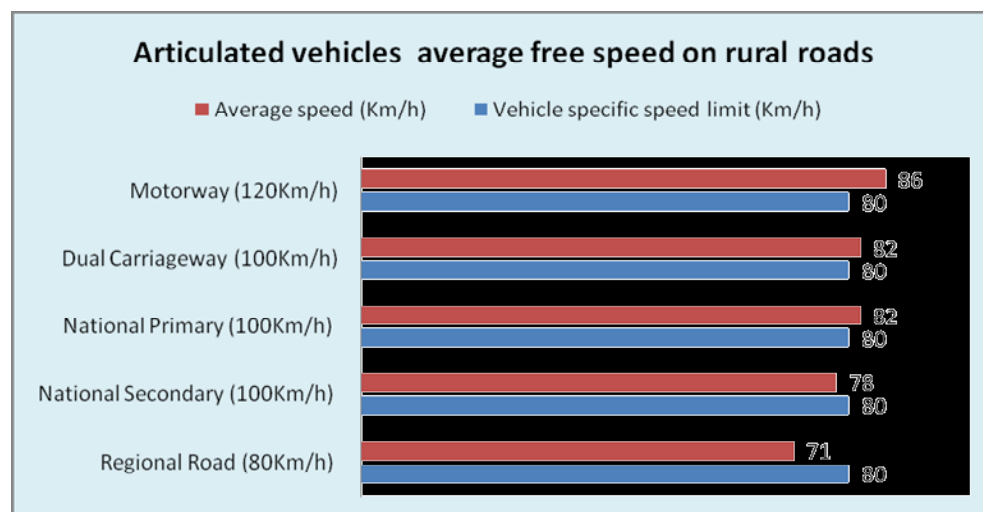
The average free speed for articulated trucks was above the vehicle specific speed limits on all road types except national secondary and regional roads. It should be remembered that speed limits of 80 km/h apply to such vehicles rather than the speed limit applicable to the road (Figure 2.2d).

**Figure 2.2c: Percentage of articulated vehicles exceeding vehicle specific speed limit, 2003-2008**



**68% of articulated drivers on dual carriageways were driving between 80 and 100 km/h**

**Figure 2.2d: Articulated vehicles average free speed on rural roads in 2008**



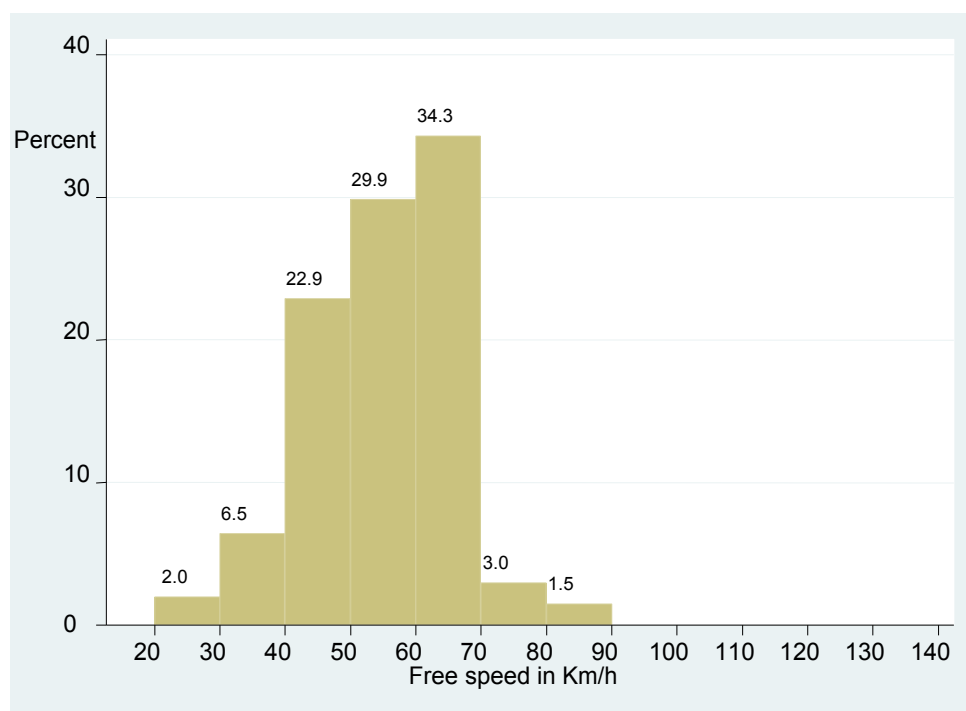
*Average free speeds of articulated vehicles on national secondary, regional and local roads were within the vehicle specific speed limit*

Sections 2.3 and 2.4 show the percentage of articulated vehicles travelling at various speeds on different road types.

### 2.3 Free Speed on Urban Roads

On urban national roads, within a 50km/h speed limit, 68.7% of articulated vehicles exceeded 50km/h, 37% of the articulated vehicles were travelling between 60 and 80km/h, and 2% were travelling between 80 and 100 km/h (Figure 15).

**Figure 2.3: Distribution of articulated vehicles free speed on urban national roads in 2008**

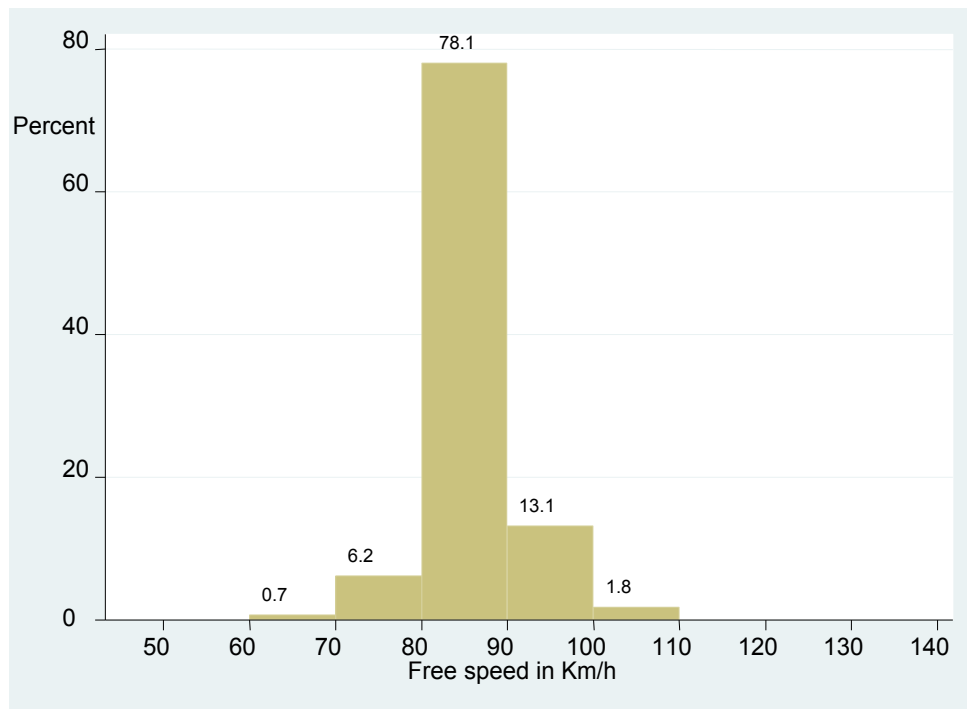


## 2.4 Free Speed on Rural Roads

On motorways, 91% of articulated vehicles were travelling between 80 and 100km/h, 1.8% travelled between 100-120km/h, while 32% travelled under 80km/h on dual carriageways (see Figures 2.4a and 2.4b).

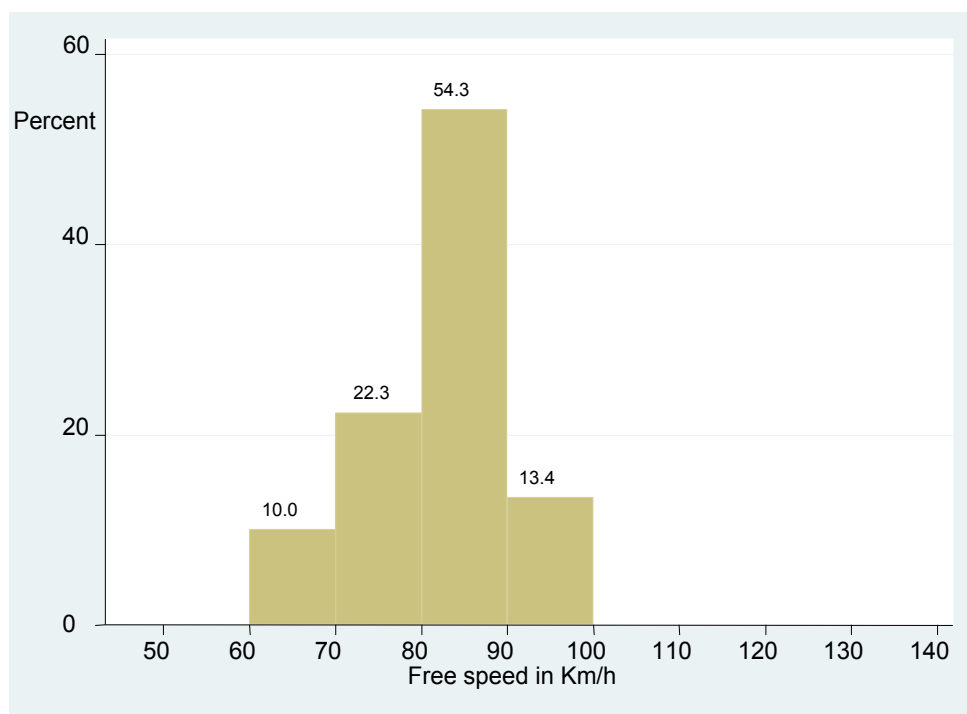
The most frequent articulated vehicle speed range on rural roads is between 80-90km/h on motorways, dual carriageways, national primary and secondary roads, 60-80km/h on regional and local roads (see Figure 16 to 20).

**Figure 2.4a: Distribution of articulated vehicles free speed on motorways in 2008**



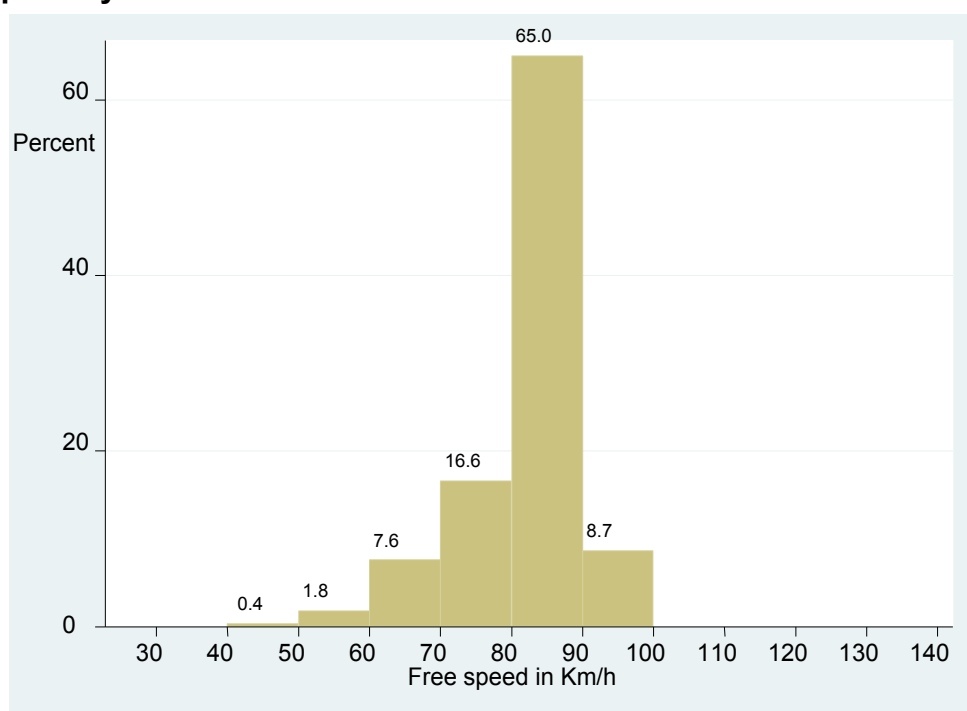
On dual carriageways, 32.3% of articulated vehicles travelled at less than the speed limit for their vehicles. 67.7% travelled above the speed limit with 13.4% of articulated vehicles travelling more than 10km/h above the speed limit.

**Figure 2.4b: Distribution of articulated vehicles free speed on dual carriageways in 2008**



On national primary roads, 65% of articulated vehicles exceeded the speed limit by up to 10km/h. 8.7% of these vehicles exceeded the speed limit by between 10km/h and 20km/h.

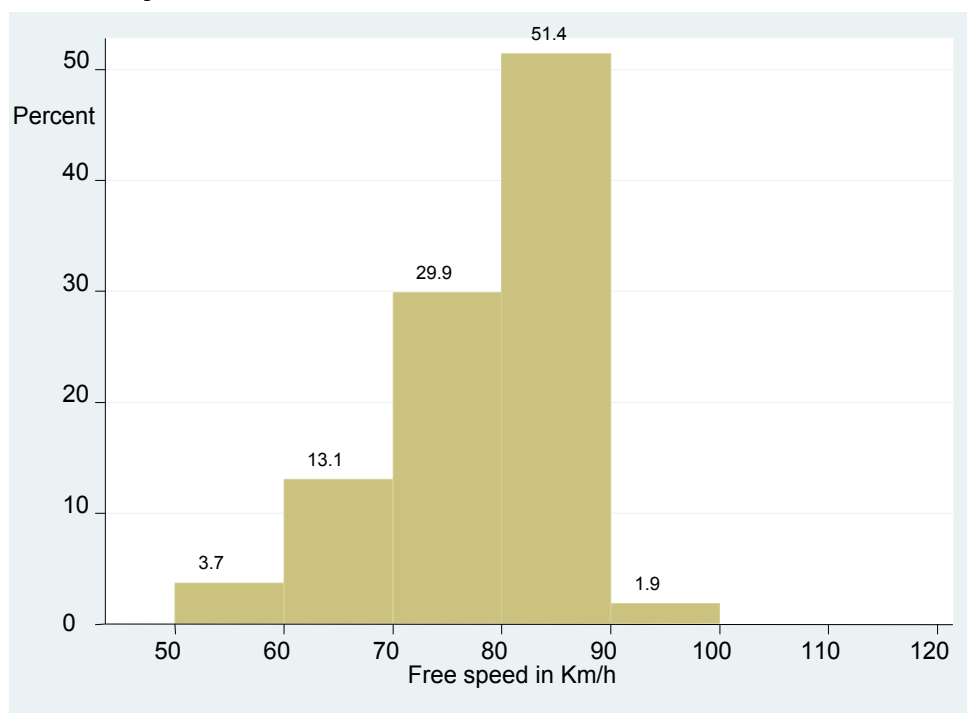
**Figure 2.4c: Distribution of articulated vehicles free speed on national primary roads in 2008**





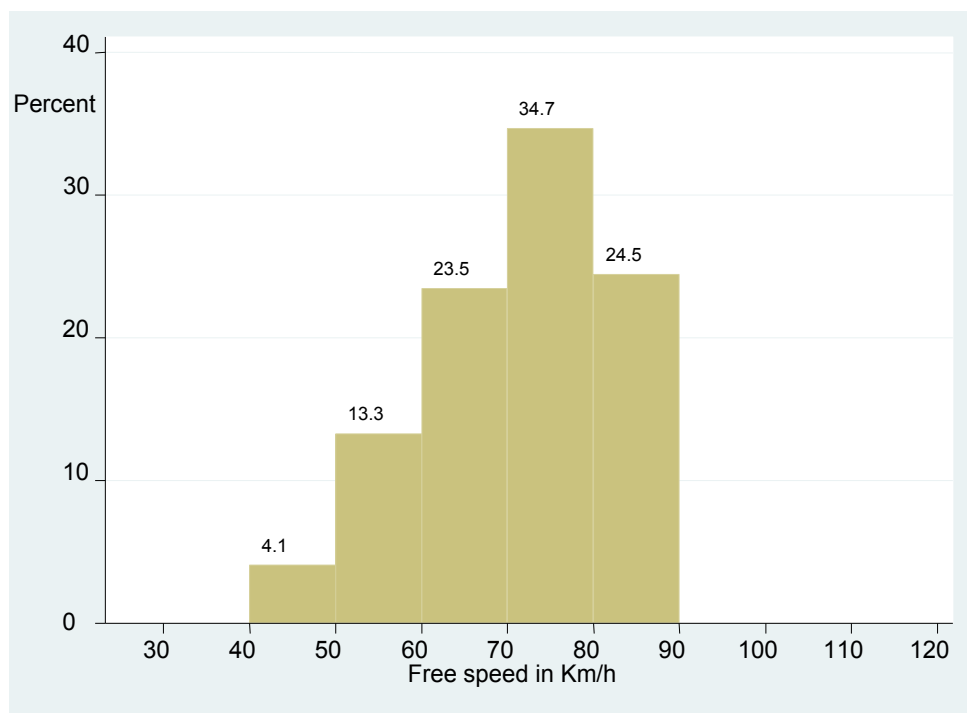
On national secondary roads, 51.4% of articulated vehicles exceeded the speed limit by up to 10km/h. Almost 2% of these vehicles exceeded the limit by between 10km/h and 20km/h.

**Figure 2.4d: Distribution of articulated vehicles free speed on national secondary roads in 2008**



On regional roads, the number of articulated vehicles travelling below the speed limit has increased with 75.6% of vehicles now adhering to the speed limit.

**Figure 2.4e: Distribution of articulated vehicles free speed on regional roads in 2008**



### 3 Free Speed Survey 2008 – Rigid Vehicles

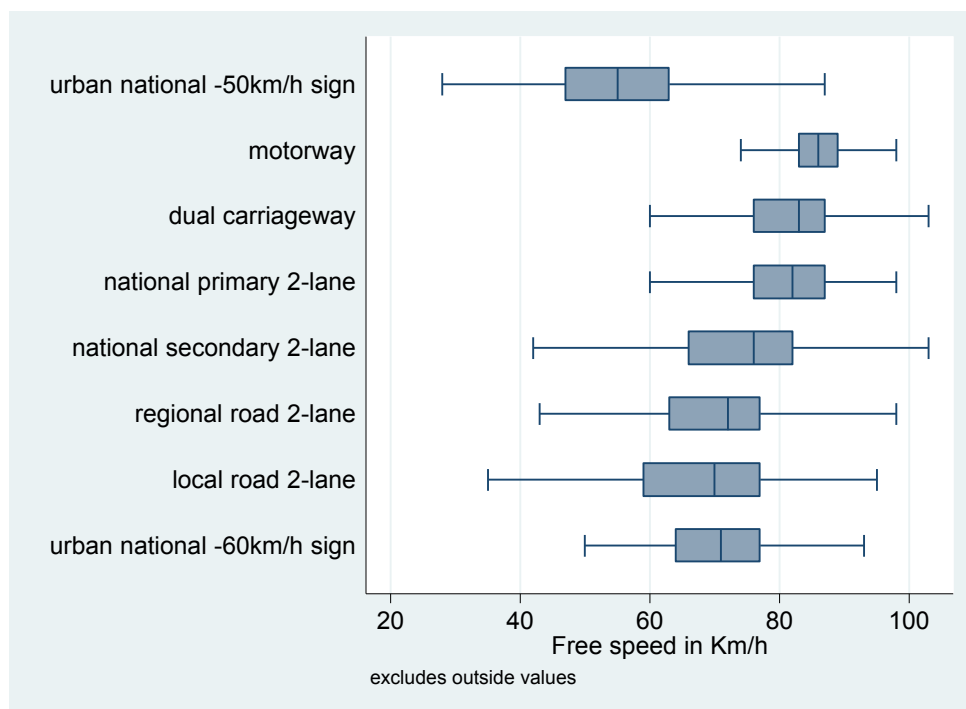
#### 3.1 Overview

In 2008, a total of 3,108 rigid vehicles were observed on the road network in Ireland. 83% of rigid trucks observed were on rural roads (i.e. motorways, dual carriageways national primary and national secondary roads, regional and local roads). 54% of all rigid trucks observed on rural roads were driving at a speed greater than the limit set for their vehicle type (80km/h).

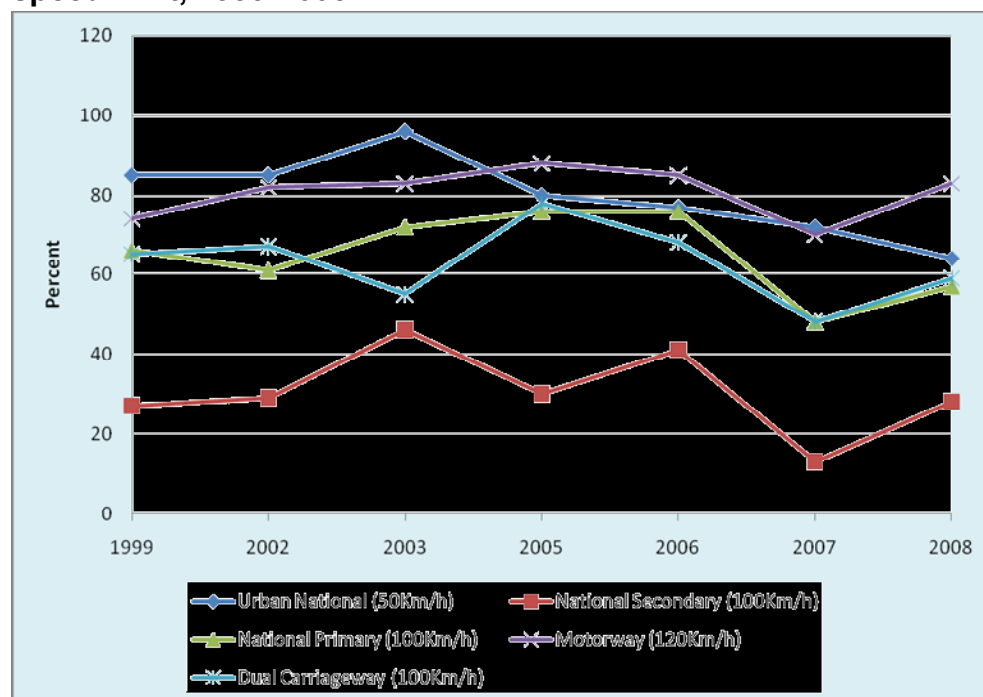
#### 3.2 Overview of Free Speed by Road Type

For the drivers of rigid trucks, there was an increase in speed violation on all roads except regional and local roads (Figures 3.2a & 3.2b). A speed limit of 80km/h applies to these vehicle types.

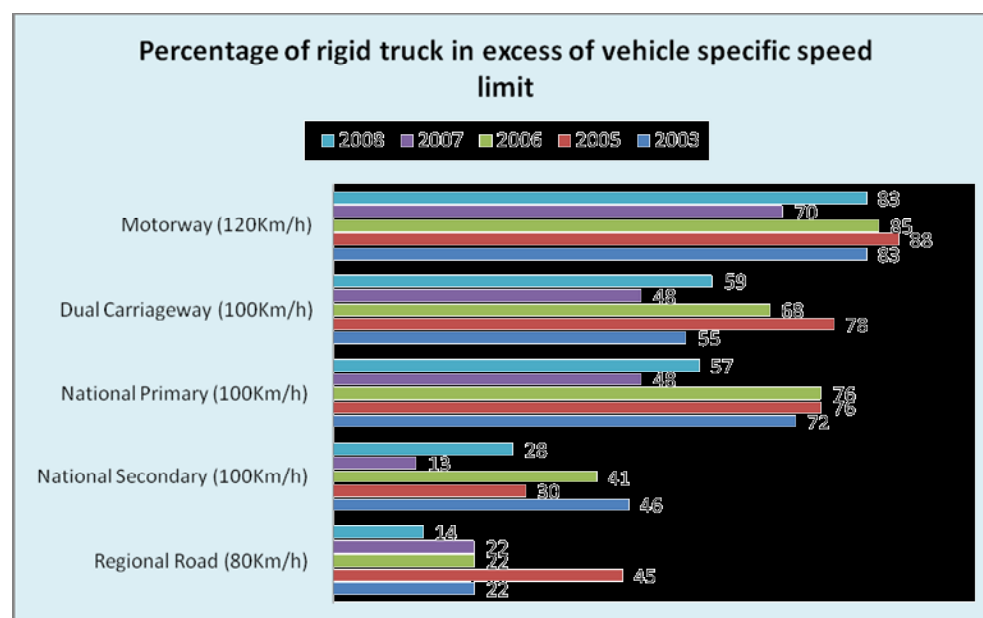
**Figure 3.2a: Box plot of rigid vehicles free speed by road types in 2008**



**Figure 3.2b: Percentage of rigid vehicles exceeding vehicle specific speed limit, 1999-2008**



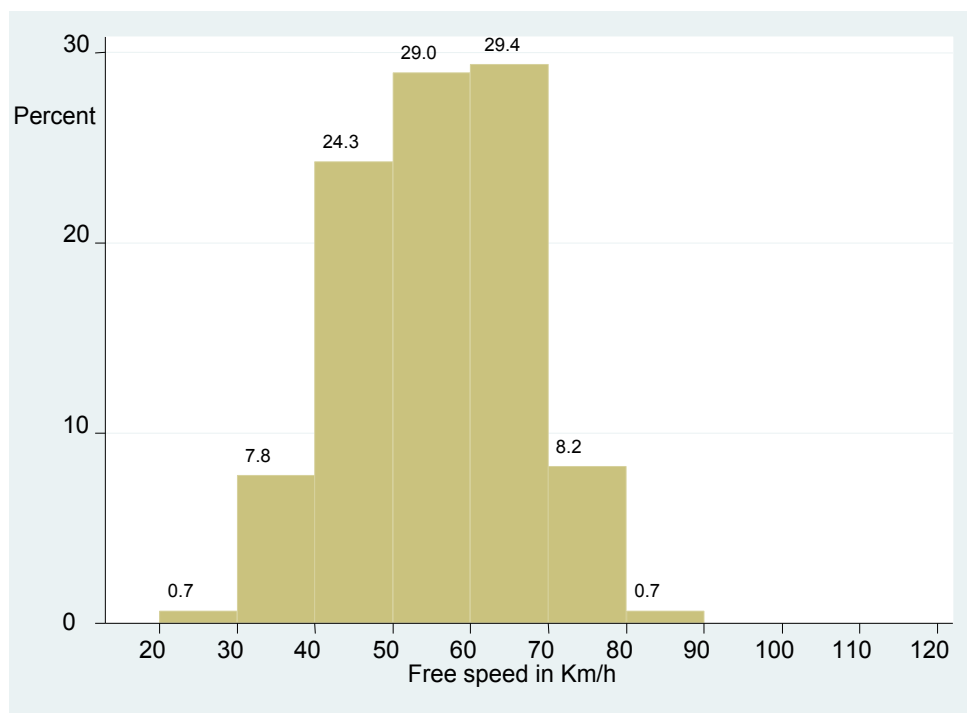
**Figure 3.2c: Percentage of rigid vehicles exceeding vehicle specific speed limit, 2003-2008**



### 3.3 Free Speed on Urban Roads

On urban national roads, within a 50km/h speed limit, 64% of rigid vehicles exceeded 50km/h, a reduction of 8% on 2007 figures. 38% of the rigid vehicles were travelling between 60 and 80km/h (Figure 3.3a).

**Figure 3.3a: Distribution of rigid vehicles free speed on urban national roads in 2008**



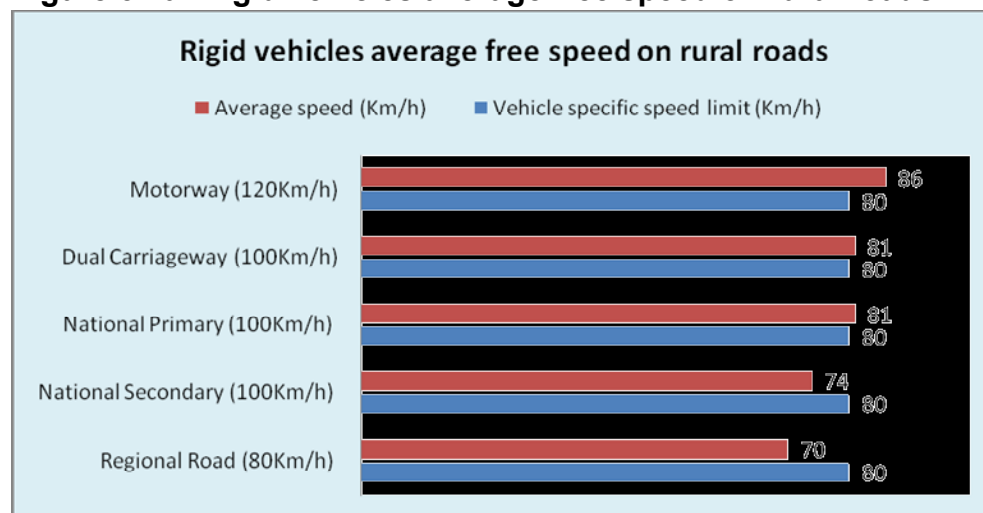
### **3.4 Free Speed on Rural Roads**

The most frequent rigid vehicle speed range on rural roads is between 80-100km/h on motorways, 80-90km/h on dual carriageways and national primary roads and 70-90km/h on national secondary roads and regional roads.

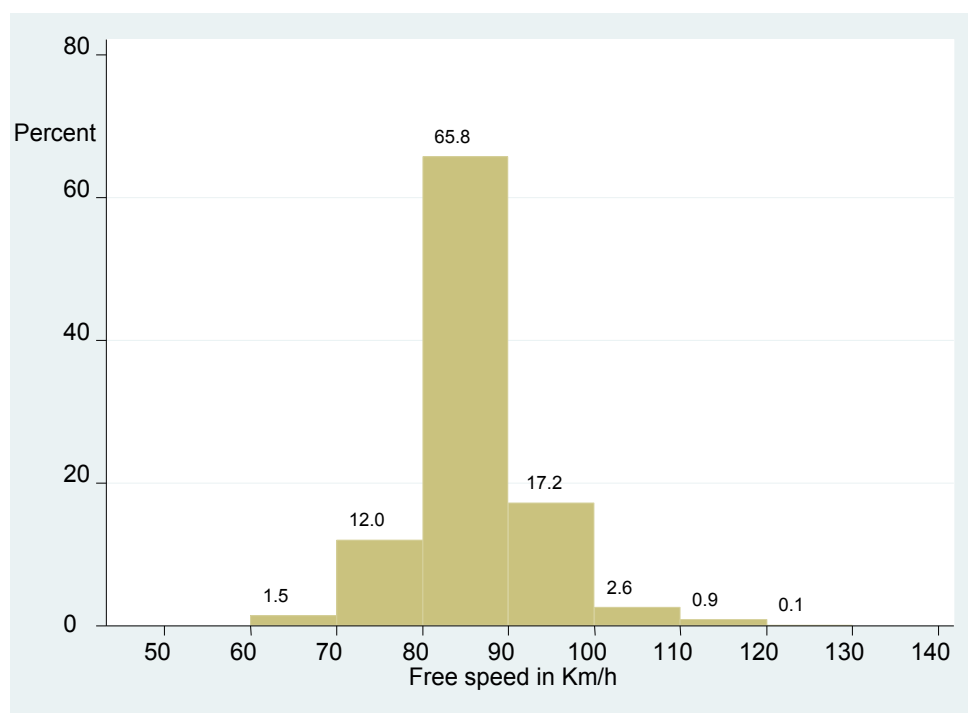
On motorways, 65.8% of rigid vehicles travelled between 80km/h and 90km/h, a total of 83% of rigid vehicles travelled between 80km/h and 100km/h and 4% travelled between 100-120km/h.

For rigid trucks the average free speed was above the vehicle specific speed limit on motorways, dual carriageways and national primary roads but was less than the vehicle specific speed limit on national secondary, regional and local roads (Figure 3.4a).

**Figure 3.4a: Rigid vehicles average free speed on rural roads**

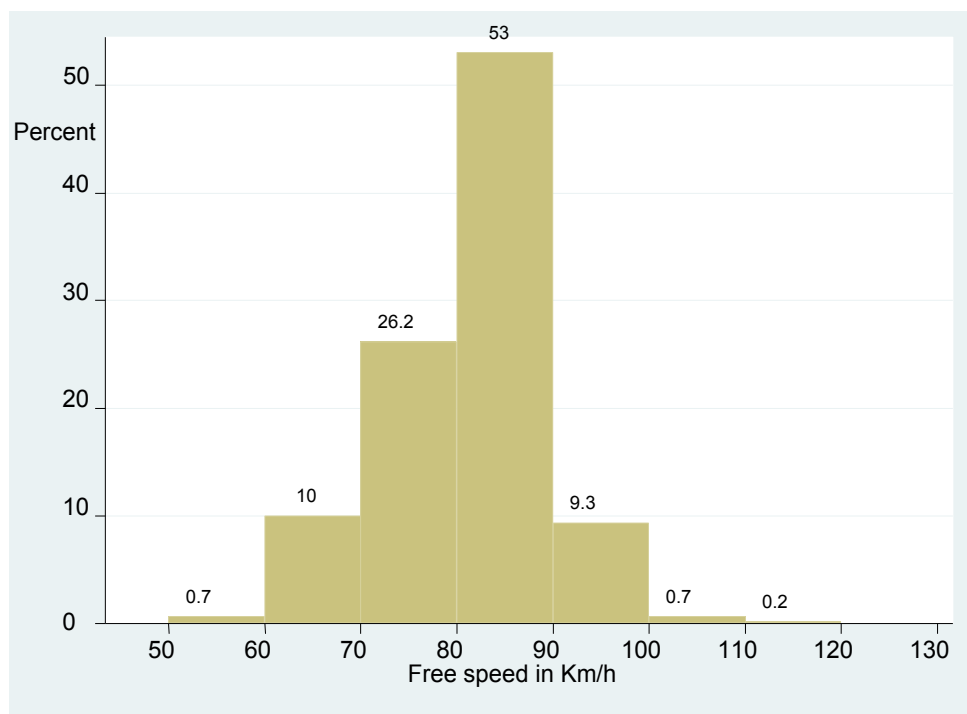


**Figure 3.4b: Distribution of rigid vehicles free speed on motorways in 2008**



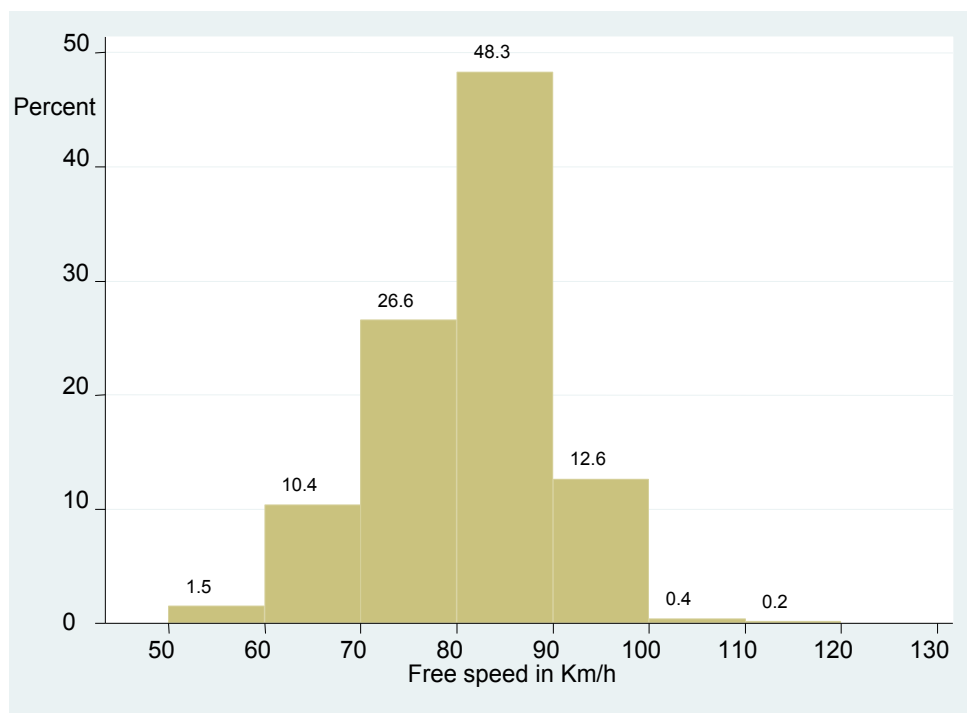
On dual carriageways, 36.9% of rigid vehicles travelled at speeds less than the speed limit for their vehicle type. 53% of rigid vehicles travelled between 80km/h and 90km/h.

**Figure 3.4c: Distribution of rigid vehicles free speed on dual carriageways in 2008**



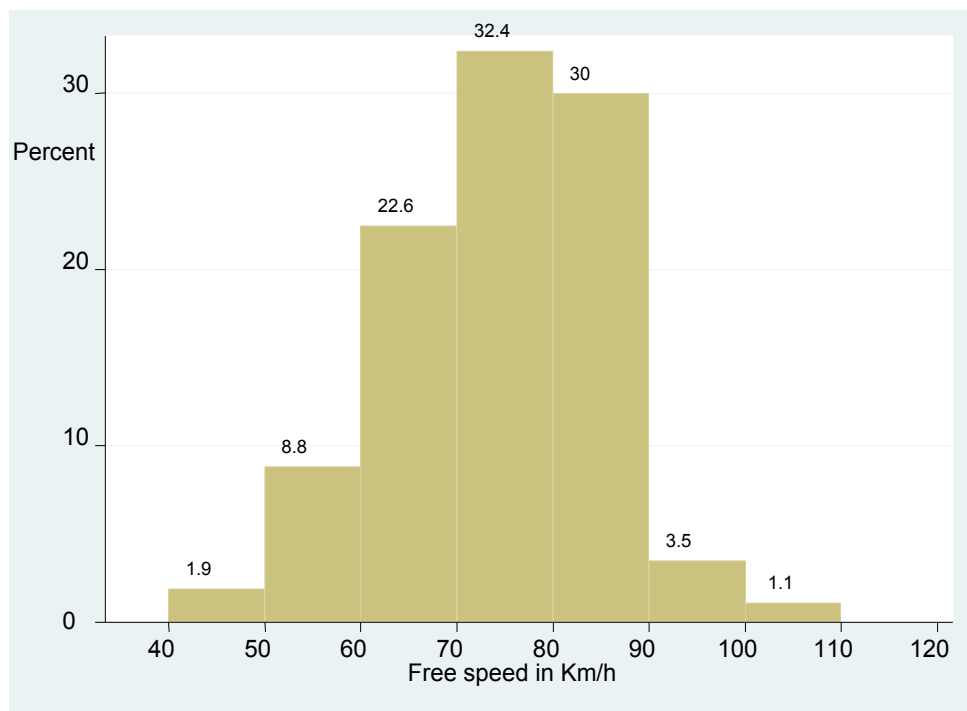
On national primary roads, 38.5% of rigid vehicles travelled below the speed limit, 48.3% travelled between 80km/h and 90km/h and 12.6% of vehicles exceeded the speed limit by between 10km/h and 20km/h.

**Figure 3.4d: Distribution of rigid vehicles free speed on national primary roads in 2008**



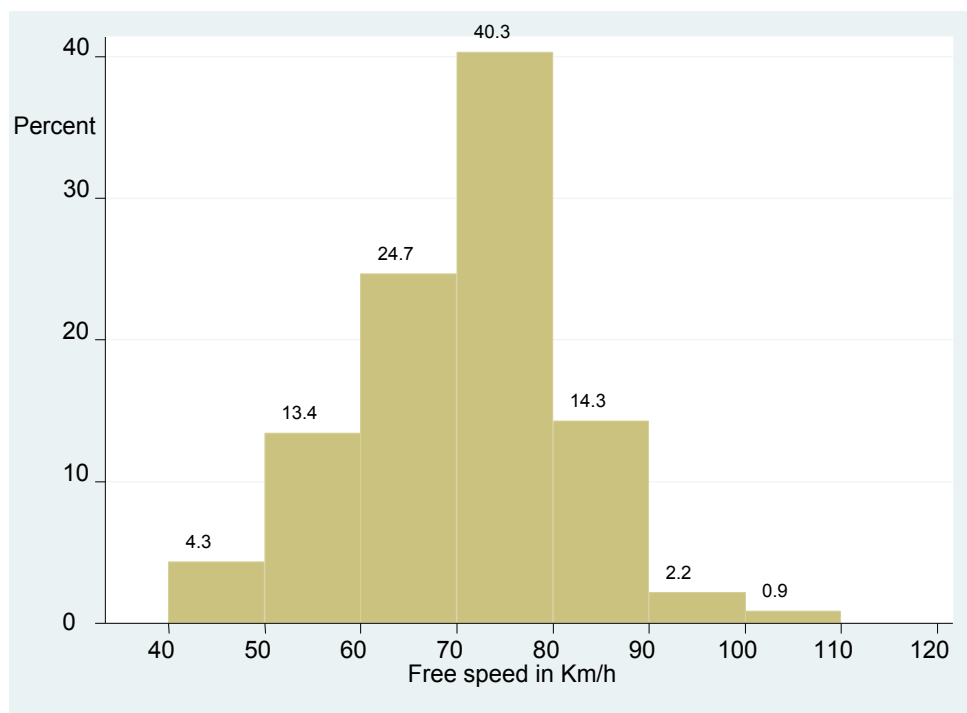
On national secondary roads, 65.7% of vehicles travelled at speeds less than the speed limit. However, almost 5% of vehicles exceeded the speed limit by between 10km/h and 30km/h.

**Figure 3.4e: Distribution of rigid vehicles free speed on national secondary roads in 2008**





**Figure 3.4f: Distribution of rigid vehicles free speed on regional roads in 2008**



## 4 Free Speed Survey 2008 – Single Deck Buses

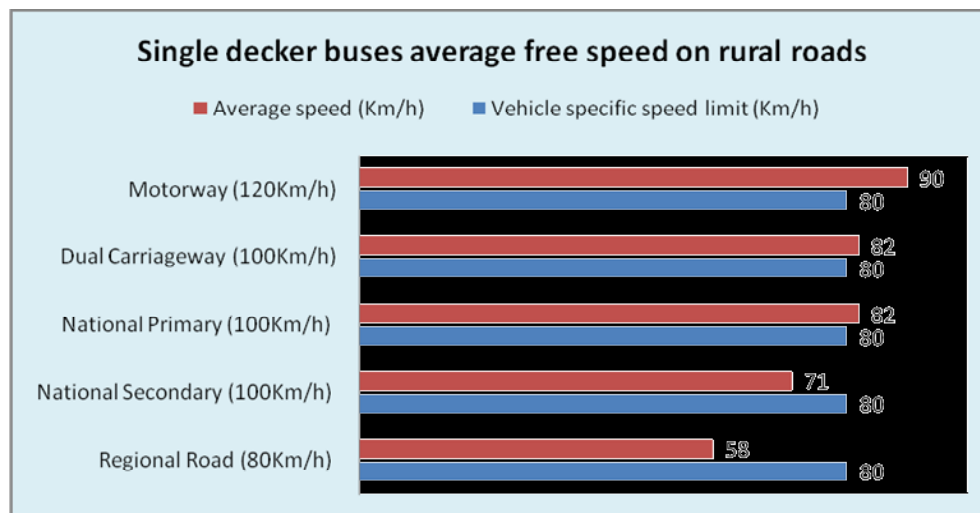
In 2008, a total of 360 single deck buses were surveyed on the road network in Ireland. All the buses observed were on rural roads (i.e. motorways, dual carriageways national primary and national secondary roads, regional and local roads). 57% of all single deck buses observed on rural roads were speeding (i.e. driving at a speed greater than 80km/h).

The average free speed of single deck buses on national roads in rural areas differed depending on the quality of the road. On the better primary roads, the average free speed was higher than the 80 km/h permitted for such a vehicle while on national secondary roads the speeds were lower than the speed limit.

On the higher risk regional roads, the average speed of the buses was well below the speed limit specific to that vehicle.

*Single deck buses travelled at speeds above or below the applicable speed limit dependent on quality of the road*

**Figure 4.1: Single deck buses average free speed on rural roads**



**Table 4.1: Relative level of single deck bus driver violations by speed limit in 2008**

<b>Road type</b>	<b>Vehicle specific Speed limit (Km/h)</b>	<b>Average speed (Km/h)</b>	<b>Mean violation (Km/h)</b>	<b>Ratio violation/speed limit</b>
National Secondary (100Km/h)	80	71	6.8	0.08
National Primary (100Km/h)	80	82	8.4	0.11
Motorway (120Km/h)	80	82	11.9	0.15
Local Road (80Km/h)	80	72	9	0.11
Dual Carriageway (100Km/h)	80	90	7.5	0.09

## 5 Speed Variations

### 5.1 Overview

Variation in the speed of vehicles in particular sections of the road network is a measure of the distribution of actual travel speed above and below the average travel speed. The higher this figure, more dispersion there is of speeds, which contributes to the potential for more collision. It is widely held and true belief that there is a link between road safety and the variations of speeds on the road. 2008 survey results indicate high speed variations among motorcycle on a regional roads, dual carriageway and national primary. There were also high speed variations among cars on dual carriageway, national secondary, regional and local roads.

**Table 5.1: Variations in vehicle speed by road type, 2008**

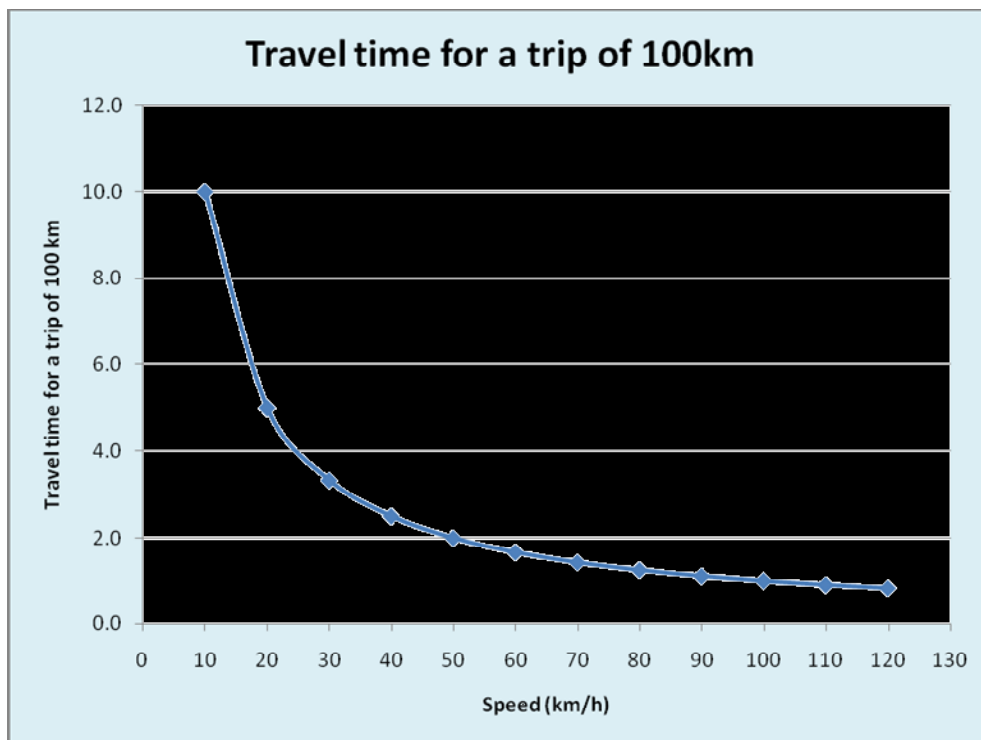
Road type	Vehicle type				
	Car	Rigid truck	articulator	Single deck bus	motorcycle
urban national -50km/h sign	11.7	11.0	11.1	-	-
Urban arterial - 60km/h speed limit zone	11.4	-	-	-	-
Urban arterial - 50km/h speed limit zone	12.4	-	-	-	-
urban residential - 50km/h zone	8.4	-	-	-	-
Motorway	13.5	7.0	5.1	8.9	16.2
dual carriageway	15.1	8.2	7.6	8.6	27.0
national primary 2-lane	11.7	8.7	7.9	10.4	21.9
national secondary 2-lane	14.3	11.1	9.1	11.1	-
regional road 2-lane	14.1	11.1	11.2	11.2	37.5
local road 2-lane	16.0	14.4	7.3	12.7	-

Note: variation was calculated as the deviation from the average free speed.

### 5.2 Relationship between speed and travel time

Drivers do not perceive correctly the relationship between speed and travel time. As illustrate in figure 30 below, for a travel time for a trip of 100km, there is no significant gain in time by travelling at a speed of 100Km/h instead of 80Km/h or at 120Km/h instead of 100Km/h.

**Figure 5.2: Relationship between speed and travel time**



## 6 Detailed Tables

### 1. Percentage exceeding speed limits on urban roads, 2008.

Road Type and Vehicle Class	Avg. Speed (km/h)	Number Speeding	Number in Sample	% Speeding	85th *Percentile Free Speed (km/h)
Arterial - 50 km/h -Cars	57	584	840	70	69
Arterial - 60 km/h -Cars	66	753	1120	67	76
-National - 50 km/h	55	136	201	68	65
-Articulated Vehicle	60	871	1120	78	72
-Cars	-	-	-	-	-
-Motor Cycles	55	286	449	64	66
-Rigid Vehicles	-	-	-	-	-
-Single Decker Buses					
Residential - 50 km/h -Cars	35	247	1208	4	44

\*85<sup>th</sup> percentile means 15% of the vehicles surveyed were travelling faster than this speed.

## 2. Percentage exceeding speed limits on rural roads, 2008

	Road Type and Vehicle Class	Speed Limit (Km/h)	Avg. Speed (km/h)	Number Speeding	Number in Sample	% Speeding
Motorway	-Articulated Vehicle	80 120	86	249	274	91
	-Cars	80	107	203	1400	15
	-Rigid Vehicles	80	86	577	692	83
	-Single Decker Buses	80	90	114	131	87
	-Motor Cycles		104	7	45	16
Dual Carriageway	-Articulated Vehicle	80 100	82	170	269	63
	-Cars	80	96	556	1400	40
	-Rigid Vehicles	80	81	351	600	59
	-Single Decker Buses	80	82	38	65	59
National Primary	-Articulated Vehicle	80 100	82	194	277	70
	-Cars	80	91	271	1400	19
	-Rigid Vehicles	80	81	305	538	57
	-Single Decker Buses	80	82	39	65	60
National Secondary	-Articulated Vehicle	80 100	78	53	107	49
	-Cars	80	81	133	1400	10
	-Rigid Vehicles	80	74	103	374	28
	-Single Decker Buses	80	71	12	62	19
Regional Road	-Articulated Vehicle	80 80	71	21	98	21
	-Cars	80	76	369	1077	34
	-Rigid Vehicles	80	70	33	231	14
	-Single Decker Buses	80	58	0	18	0
Local Road	Articulated Vehicle	80 80	70	2	40	5
	-Cars	80	69	171	830	21
	-Rigid Vehicles	80	67	15	144	10
	-Single Decker Buses	80	72	1	19	5

### 3. Distribution of free speeds (%) on urban roads, 2008

Road Type and Vehicle Class	<50 km/h	50-60 km/h	60-80 km/h	80-100 km/h	100-120 km/h	120-140 km/h	140+ km/h
Arterial - 50 km/h -Cars	28.1	32	35.7	3.5	0.7	-	-
Arterial - 60 km/h -Cars	4.8	24.4	59.9	9.7	1.1	0.1	-
National - 50 km/h -Articulated Vehicle	31.3	29.9	37.3	1.5	-	-	-
-Cars	19.9	27.5	46.3	6.3	0.1	-	-
-Rigid Vehicles	32.7	29.0	37.6	0.7	-	-	-
-Single Decker Buses	-	-	-	-	-	-	-
Residential - 50 km/h -Cars	95.1	4.2	0.7	-	-	-	-
National - 60 km/h -Cars	0.7	10.0	57.9	30.0	1.4	-	-



#### 4. Distribution of free speeds (%) on rural roads, 2008

	Road Type and Vehicle Class	Speed Limit (Km/h)	<50 km/h	50-60 km/h	60-80 km/h	80-100 km/h	100-120 km/h	120-140 km/h	140 + km/h
Motorway	-Articulated Vehicle	80 120	-	-	6.9	91.2	1.8	-	-
	-Cars	80	-	-	2.6	24.1	56.3	16.6	0.5
	-Rigid Vehicles	80	-	-	13.4	82.9	3.5	0.1	-
	-Single Decker Buses	80	-	-	9.2	84.0	6.9	-	-
	-Motorcycle	120	-	-	6.7	35.6	42.2	15.6	-
Dual Carriageway	-Articulated Vehicle	80 100	-	-	32.3	67.7	-	-	-
	-Cars	80	-	0.3	16.6	40.8	38.2	3.9	0.2
	-Rigid Vehicles	80	-	0.7	36.2	62.3	0.8	-	-
	-Single Decker Buses	80	-	-	40.0	58.5	1.5	-	-
	-double Decker Buses	65	-	-	50.0	50.0	-	-	-
National Primary	-Articulated Vehicle	80 100	0.4	1.8	24.2	73.6	-	-	-
	-Cars	80	0.1	0.3	14.3	63.0	21.4	1.0	-
	-Rigid Vehicles	80	-	1.5	37.0	61.0	0.6	-	-
	-Single Decker Buses	80	1.5	3.1	35.4	60.0	-	-	-
National Secondary	-Articulated Vehicle	80 100	-	3.7	43.0	53.3	-	-	-
	-Cars	80	0.3	5.2	41.0	42.8	9.9	0.8	-
	-Rigid Vehicles	80	1.9	8.8	54.8	33.4	1.1	-	-
	-Single Decker Buses	80	4.8	6.5	66.1	22.6	-	-	-
Regional Road	-Articulated Vehicle	80 80	4.1	13.3	58.2	24.5	-	-	-
	-Cars	80	1.5	11.0	50.2	31.8	5.1	0.4	-
	-Rigid Vehicles	80	4.3	13.4	64.9	16.5	0.9	-	-
	-Single Decker Buses	80	33.3	27.8	38.9	-	-	-	-
Local Road	Articulated Vehicle	80 80	-	5.0	82.5	12.5	-	-	-
	-Cars	80	10.6	18.9	47.5	20.2	2.5	0.2	-
	-Rigid Vehicles	80	15.3	11.1	52.8	20.8	-	-	-
	-Single Decker Buses	80	15.8	-	52.6	31.6	-	-	-

## 5. Free speed (urban): Comparison of results for 2007 and 2008

Road Type and Vehicle Class	2007 Exceeding Speed Limit (%)	2008 Exceeding Speed Limit (%)*	2007 average Free Speed (km/h)	2008 average Free Speed (km/h)
Urban Arterial - 50 km/h zone -Cars	40	69.5	49	57.2
Urban Arterial - 60 km/h zone -Cars	32	67.2	55	65.8
Urban National - 50 km/h sign -Articulated Vehicle	74	67.8	66	54.9
-Cars	86	77.8	75	60.2
-Motor Cycle	-	-	-	-
-Rigid Vehicles	72	63.7	65	55.0
-Single Decker Buses	80	-	63	-
Urban Residential - 50 km/h zone -Cars	23	3.9	45	35.2

## 6. Free speed (Rural): Comparison of results for 2007 and 2008

	Road Type and Vehicle Class	2007 Exceeding Speed Limit (%)	2008 Exceeding Speed Limit (%)*	2007 average Free Speed (km/h)	2008 average Free Speed (km/h)
Motorway	-Articulated Vehicle	86	91	86	86
	-Cars	14	15	108	107
	-Rigid Vehicles	70	83	85	86
	-Single Decker Buses	70	87	87	90
	-Motor Cycle	-	16	-	104
Dual Carriageway	-Articulated Vehicle	54	63	79	82
	-Cars	24	40	92	96
	-Rigid Vehicles	48	59	80	81
	-Single Decker Buses	77	59	86	82
	-Motor Cycle	-	-	-	-
National Primary	-Articulated Vehicle	64	70	85	82
	-Cars	20	19	89	91
	-Rigid Vehicles	48	57	82	81
	-Single Decker Buses	71	60	87	82
	-Motor Cycle	-	-	-	-
National Secondary	-Articulated Vehicle	25	49	70	78
	-Cars	4	10	76	81
	-Rigid Vehicles	13	28	67	74
	-Single Decker Buses	16	19	66	71
	-Motor Cycle	-	-	-	-
Regional Road	-Articulated Vehicle	30	21	67	71
	-Cars	34	34	73	76
	-Rigid Vehicles	22	14	66	70
	-Single Decker Buses	16	0	57	58
	-Motor Cycle	-	-	-	-
Local Road	-Articulated Vehicle	10	5	70	70
	-Cars	30	21	73	69
	-Rigid Vehicles	17	10	67	67
	-Single Decker Buses	-	5	-	72
	-Motor Cycle	-	-	-	-

## 7. Free speed percentiles on urban roads, 2008

Road Type and Vehicle Class	Speed Limit (Km/h)	50th Percentile Speed (km/h)	85th Percentile Free Speed (km/h)
Arterial - 50 km/h -Cars	50	56	70
Arterial - 60 km/h -Cars	60	65	76
National - 50 km/h	50	57	65
-Articulated Vehicle	50	60	72
-Cars	50	-	-
-Motor Cycles	50	55	66
-Rigid Vehicles	50	-	-
-Single Decker Buses			
Residential - 50 km/h -Cars	50	35	44

## 8. Free speed percentiles on rural roads, 2008

	Road Type and Vehicle Class	Speed Limit (Km/h)	50th Percentile Speed (km/h)	85th Percentile Speed (km/h)
Motorway	-Articulated Vehicle	80	87	89
	-Cars	120	109	120
	-Rigid Vehicles	80	86	91
	-Single Decker Buses	80	90	98
Dual Carriageway	-Articulated Vehicle	80	85	89
	-Cars	100	97	111
	-Rigid Vehicles	80	83	89
	-Single Decker Buses	80	82	90
National Primary	-Articulated Vehicle	80	85	89
	-Cars	100	92	103
	-Rigid Vehicles	80	82	89
	-Single Decker Buses	80	83	93
National Secondary	-Articulated Vehicle	80	80	97
	-Cars	100	80	96
	-Rigid Vehicles	80	76	85
	-Single Decker Buses	80	71	82
Regional Road	-Articulated Vehicle	80	72	83
	-Cars	80	75	89
	-Rigid Vehicles	80	72	80
	-Single Decker Buses	80	55	76
Local Road	-Articulated Vehicle	80	70	77
	-Cars	80	68	85
	-Rigid Vehicles	80	70	80
	-Single Decker Buses	80	77	80

## 7 Appendices

### Appendix 1: Sample free speed survey sheet

Free Speed Survey 2005.						
<b>Site Information</b>						
Code:						
Location:						
Date:						
Target Sample Size:						
Actual Sample Size:						
Weather						
Start Time:						
Finish Time:						
Speed Limit:						
Surveyed by:						
	Type					Speed
Number	Car	Rigid	Artic	Single decker bus	Double decker bus	(mph)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

## Appendix 2: Free speeds (urban) survey locations

7.1.1 Table A5.1 *Urban national – 50 km/h sign*

IDCODE	ROUTE	LOCAL	DESCRIPTION
NPU01	N17	Sligo	At 50 km/h SL Curry – Southside
NPU02	N18	Galway	At 50 km/h SL north side of Gort town
NPU03	N8	Cork	At Fitzpatrick's Hotel, between the junctions of N8/R635 & N8/R639
NPU04	N3	Meath	Kells, on the east approach from Navan before the junction of N3/R163
NPU05	N8	Laois	Durrow, at the north approach to Durrow, before the junction of N8/R434
NSU01	N78	Kildare	Athy, at the north-eastern approach from Kilcullen
NSU04	N71	Cork	West of Bandon, between the junctions of N71/R603 & N71/R602
NSU05	N69	Limerick	Tarbert on the N69, to the east of the junction of N69/N67
NSU07	N63	Galway	At 50 km/h SL eastside of Moylough

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8.1.1 Table A5.2 *Urban arterial – 60 km/h speed limit zone*

IDCODE	ROUTE	LOCAL	DESCRIPTION
ART1	N/A	Dublin	Rock road north of St. Helens Road
ART4	N/A	Dublin	Chapelizod road at the sports grounds
ART6	N/A	Dublin	James Larkin road slightly off Watermill road
ART10	N/A	Dublin	Clonkeen road south of Beach Park Road
ART11	N/A	Dublin	Naas road midway between Club road and Turnpike road
ART13	N/A	Dublin	Finglas road after Ballybogan road and north of Slaney road
ART14	N/A	Dublin	N11 Belfield just south of Belfield flyover
ART15	N/A	Dublin	Malahide road slightly north of Greencastle road

8.1.2 Table A5.3 *Urban arterial – 50 km/h speed limit zone*

IDCODE	ROUTE	LOCAL	DESCRIPTION
ART2	N/A	Dublin	Morehampton road at Sachs Hotel
ART3	N/A	Dublin	Cabra road east of Annamoe road
ART5	N/A	Dublin	Templeogue road at Bushy Park
ART7	N/A	Dublin	N3 Navan road east of Kinvara avenue
ART8	N/A	Dublin	Dodder Park road north of Rathfarnham road
ART9	N/A	Dublin	Lower Kilmacud road near junction with Kilmacud road

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9.1.1 Table A5.4 *Urban residential –50 km/h zone*

IDCODE	ROUTE	LOCAL	DESCRIPTION
RES01	N/A	Dublin	Brian Road Marino
RES02	N/A	Dublin	Broombridge Road
RES03	N/A	Dublin	Lorcan Avenue Santry, slightly to the west of Coolgariff road
RES04	N/A	Dublin	Brookwood Rise, between Gracefield and Rosemount Avenues
RES05	N/A	Dublin	Annamoe Road
RES06	N/A	Dublin	Glasilawn road, Griffith Avenue area
RES07	N/A	Dublin	Charlemont, at the missionary College
RES08	N/A	Dublin	Delwood road Blanchardstown, between Delwood walk and drive
RES11	N/A	Dublin	Abbey Park, just south of the Grange road



### Appendix 3: Free speeds (rural) survey locations

#### 9.1.2

#### 9.1.3 Table A6.1 *Motorway*

IDCODE	ROUTE	LOCAL	DESCRIPTION
Myr01	M04	Kildare	Just south of Maynooth exit
Myr02	M07	Kildare	1 mile west of M9 interchange
Myr03	M01	Louth	Just south of R170 Ardee junction
Myr04	M04	Kildare	1 mile south of Maynooth exit
Myr05	M07	Kildare	1 mile north of Naas/Allenwood junction
Myr06	M11	Dublin	1 mile south of roundabout at Shankill
Myr07	M07	Laois	Portlaoise bypass
Myr08	M07	Laois	Portlaoise bypass
Myr09	M01	Dublin	Balbriggan bypass
Myr10	M01	Dublin	Balbriggan bypass

#### 9.1.4 Table A6.2 *Dual carriageway*

IDCODE	ROUTE	LOCAL	DESCRIPTION
DCR01	N18	Clare	1 mile west of R463 Cratloe junction
DCR02	N03	Meath	Close to Trim junction, R154
DCR03	N03	Meath	Close to Trim junction, R154
DCR04	N03	Dublin	3 miles north of Clonsilla junction
DCR05	N11	Wicklow	South of Newtownmountkennedy junction
DCR06	N18	Clare	2.5 miles east of R462 junction
DCR07	N18	Clare	1 mile west of R462 Cratloe junction
DCR08	N11	Wicklow	South of Newtownmountkennedy junction

DCR09	N11	Wicklow	Arklow by-pass
DCR10	N25	Cork	Lower Glanmire road, Cork

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## 10.1.1 Table A6.3 *National Primary (2-Lane)*

IDCODE	ROUTE	LOCAL	DESCRIPTION
NPR01	N25	Waterford	5 miles west of Dungarvan
NPR02	N08	Tipperary	Between Horse & Jockey and Turnpike junctions
NPR03	N02	Monaghan	2 miles north of Carrickmacross
NPR04	N03	Cavan	2 miles south of Baeilieboro junction
NPR05	N04	Sligo	6 miles north of Boyle
NPR06	N22	Cork	1 mile east of R590/N22 junction
NPR07	N04	Leitrim	Drumsna bypass
NPR08	N05	Longford	2 miles west of Longford
NPR09	N05	Mayo	Swinford bypass
NPR10	N06	Offaly	1.5 miles west of Horseleap

## 10.1.2

## 10.1.3 Table A6.4 *National Secondary (2-Lane)*

IDCODE	ROUTE	LOCAL	DESCRIPTION
NSR01	N60	Mayo	2 miles west of Claremorris
NSR02	N84	Mayo	Just north of Partry
NSR03	N67	Galway	Kinvara to Kilcolgan
NSR04	N78	Kilkenny	North of Castlecomer
NSR05	N58	Mayo	Bellavary to Foxford

NSR06	N56	Donegal	2.5 miles south of Dunfanghy
NSR07	N60	Mayo	4 miles south of Castlebar
NSR08	N62	Tipperary	5 miles north of Templemore
NSR09	N59	Mayo	6 miles west of Newport
NSR10	N72	Kerry	3 miles east of N72/N22 junction near 4-arm junction

10.1.4 Table A6.5 *Regional road (2-Lane)*

IDCODE	ROUTE	LOCAL	DESCRIPTION
NNR01	R352	Galway	From R353 to Powers Cross
NNR03	R178	Louth	Between Carrickmacross and Dundalk
NNR05	R515	Tipperary	Lattin, west of Tipperary town between Clashdrumsmith and Shronell
NNR06	R438	Offaly	1 mile north of Taylor's Cross
NNR07	R499	Tipperary	East of Dolla & Silvermines
NNR08	R403	Kildare	Allenwood side of Prosperous
NNR09	R629	Cork	South of Midleton.
NNR10	R742	Wexford	Wexford to Curracloe

10.1.5 Table A6.6 *Local road (2-Lane)*

IDCODE	ROUTE	LOCAL	DESCRIPTION
NNL01	LP3210	Galway	2.4 miles from R358 at Mountbellew to Ballyforan
NNL02	LP111	Kildare	Timahoe to R402
NNL03	LP333	Kildare	South east of Naas R410 to north N7
NNL04	LP999	Wicklow	Between R760 and Sraghmore
NNL06	L41	Offaly	Tullamore - Ballinagar, 2km east of Tullamore
NNL08	L34	Cork	Ballynoe to R627 Ballyknock

NNL09	L35	Cork	North Midleton
NNL10	L7	Wexford	Enniscorthy Road to Ferns



# Working To Save Lives

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