

Free Speed Survey 2013 (Urban and Rural)



Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority

Free Speed Survey 2013 (Urban and Rural)

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CONTENTS

Executive Summary	3
Background and Methodology	5
Background	5
Methodology	6
1. Free Speed Survey 2013 - Cars	9
1.1 Overview	9
1.2 Free Speed on Urban Roads	10
1.3 Free Speed on Rural Roads	11
2. Free Speed Survey 2013 – Rigid	19
2.1 Overview	19
2.2 Free Speed on Urban Roads	19
2.3 Free Speed on Rural Roads	20
3. Free Speed Survey 2013 – Articulated Vehicles	25
3.1 Overview	25
3.2 Free Speed on Urban Roads	26
3.3 Free Speed on Rural Roads	27
4. Free Speed Survey 2013 – Single Deck Buses	33
4.1 Overview	33
4.2 Freespeed on Urban Roads	33
4.3 Freespeed on Rural Roads	34
5. Summary	39
6. Detailed Tables	41
7. Data Collection Sheet	58

Executive Summary

A nationwide observational free speed survey on Irish roads was conducted in 2013 by Nationwide Data Collection (NDC) for the Road Safety Authority (RSA).

Although speed is a demonstrated road collision causal factor, in 2013, the percentage of car drivers exceeding the speed limit on rural roads was 25%. Furthermore, the percentage of car drivers found breaking the speed limit by 10 km/h or more on urban roads was 30%.

The survey found that 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.

The percentage of free-speeding cars breaking the posted limit on motorways increased from 15% in 2012 to 21% in 2013 (overall limit of 120 km/h) and increased from 34% to 36% on regional roads (overall limit of 80 km/h).

Average car free speed was:

- 110km/h on motorways,
- 95km/h on dual carriageways,
- 91km/h on two-lane national primaries,
- 85km/h on two-lane national secondary roads,
- 70km/h on regional roads and
- 63km/h on local roads.

The proportion of cars exceeding the speed limit on urban arterial roads (in 50km/h zones) increased from 74% in 2012 to 82% in 2013.

The proportion of articulated vehicles violating vehicle specific speed limits has increased on motorways but has not increased on national primary roads in 2013.

Background and Methodology

Background

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 2013-2020.

Nationwide Data Collection (NDC) on behalf of the Road Safety Authority carried out national surveys in relation to seat belt wearing and traffic speeds in 2008, 2009, 2011, 2012 and 2013. The methodology developed for and used by Road Safety 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

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 56 rural road sites and 36 urban road sites surveyed each year. The current sites have been surveyed since 1999 with Nationwide Data Collection (NDC) conducting the surveys since December 2008. The target population is the entire Irish road network. It is divided into two subpopulations of special interest:

- Urban:
 - Urban national 50 km/h speed limit;
 - Urban national 60 km/h speed limit;
 - Arterial 50 km/h speed zones;
 - Arterial 60 km/h zones;
 - Residential 50 km/h zones;
 - Residential 30 km/h zone;
 - Regional roads 50 km/h speed limit*;
 - Local roads 50 km/h speed limit*;
 - Local roads 60 km/h speed limit*;
 -

- Rural:
 - Motorways 120 km/h speed limit;
 - Motorways 80 km/h speed limit;
 - Dual carriageways 100 km/h speed limit;
 - National primary roads 100 km/h speed limit;
 - National primary roads 80 km/h speed limit;
 - National secondary roads 100 km/h speed limit;
 - Regional roads 80 km/h speed limit;
 - Local roads 80 km/h speed limit.

The survey sites comprise of:

- Urban:
 - Urban national 50 km/h speed limit; (8 Locations)
 - Urban national 60 km/h speed limit; (2 Locations)
 - Arterial 50 km/h speed zones; (8 Locations)
 - Arterial 60 km/h zones; (7 Locations)
 - Residential 50 km/h zones. (10 Locations)
 - Residential 30 km/h zone. (1 Locations)*
 - Regional roads 50 km/h speed limit; (2 Locations)
 - Local roads 50 km/h speed limit; (1 Locations)
 - Local roads 60 km/h speed limit; (1 Locations)

Remark

It should be noted that in 2013, there were reclassification of speed limit on some of the survey sites (these sites are indicated with asterick sign).

- Rural:
 - Motorways 120 km/h speed limit; (12 Locations)
 - Motorways 80 km/h speed limit; (1 Locations)
 - Dual carriageways 100 km/h speed limit; (7 Locations)
 - National primary roads 100 km/h speed limit; (9 Locations)
 - National primary roads 80 km/h speed limit; (1 Locations)
 - National secondary roads 100 km/h speed limit; (10 Locations)
 - Regional roads 80 km/h speed limit; (5 Locations)

 - Local roads 80 km/h speed limit. (7 Locations)

The 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.

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).

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 only 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 Results- Cars

1.1 Overview

A total of 12,410 cars were surveyed on the road network in Ireland in 2013. 40% (4,925) of cars surveyed were on urban roads (i.e. urban national at the 50 km/h speed limit, urban national at the 60 km/h speed limit, arterial in 50 km/h speed zones, arterial in 60 km/h zones, residential in 30 km/h zone and residential in 50 km/h zones etc). 58% of all cars observed on urban roads were speeding (i.e. driving at a speed greater than posted speed limit).

60% of cars surveyed were on rural roads (i.e. motorway, dual carriageways national primary and national secondary roads, regional and local roads). 25% of all cars observed on rural roads were speeding.

Table below gives a breakdown of the relative level of car driver violations by speed limit for all road types in 2013.

Relative level of car driver violations by speed limit in 2013

Road	Speed limit (Km/h)	Mean violation (Km/h)	Ratio violation/speed limit
Urban National (50km/h)	50	12.8	0.26
Urban National (60km/h)	60	10.9	0.18
Urban Arterial (50km/h)	50	10.5	0.21
Urban Arterial (60km/h)	60	10.2	0.17
Urban Residential (50km/h)	50	6	0.12
Urban Residential (30km/h)	30	4.4	0.15
Motorway (120km/h)	120	8	0.07
Dual Carriageway (80km/h)	80	16.2	0.20
Dual Carriageway (100km/h)	100	9.1	0.09
National Primary (100km/h)	100	8.2	0.08
National Primary (80km/h)	80	11.6	0.15
National Secondary (100km/h)	100	8.7	0.09
Regional Road (80km/h)	80	8.6	0.11
Regional Road (50km/h)	50	8.6	0.17
Local Road (50km/h)	50	15.4	0.31
Local Road (60km/h)	60	4.2	0.07
Local Road (80km/h)	80	8.8	0.11

1.2 Free Speed on Urban Roads

On urban roads, the proportion of cars exceeding the speed limit on arterial roads with a 50 km/h limit increased from 74% in 2012 to 81% in 2013. In residential areas with a 50km/h speed limit, the proportion of cars speeding has increased from 10% in 2012 to 15% in 2013.

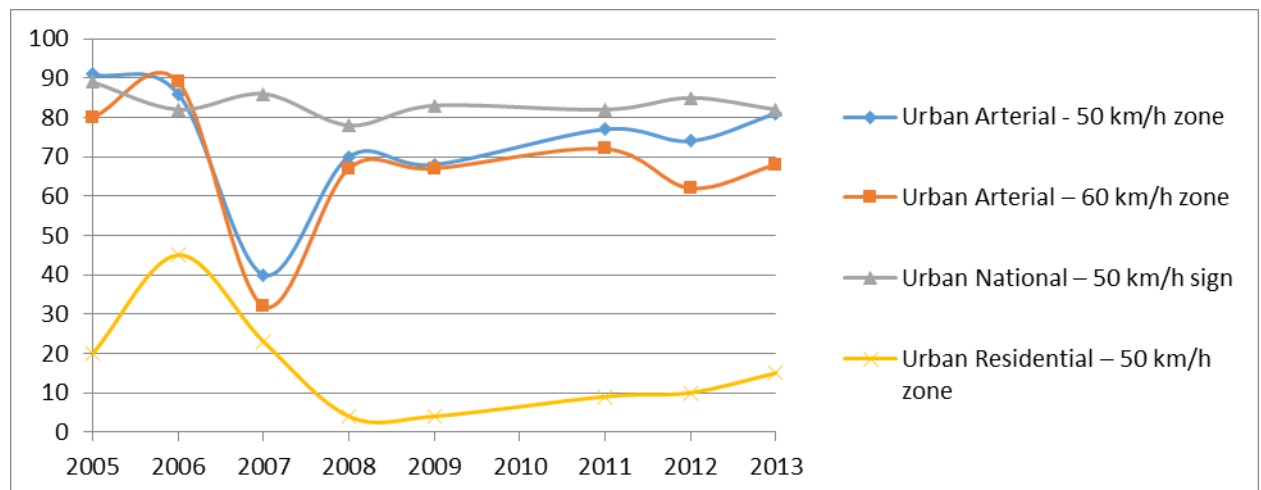
The number of cars exceeding the 50km/h speed limit in urban national areas decreased from 85% in 2012 to 82% in 2013.

On urban national roads with a 50km/h speed limit, 82% of car drivers exceeded the speed limit; 46% 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 17% of drivers were observed travelling below the speed limit and about 4% were travelling between 80 and 100 km/h.

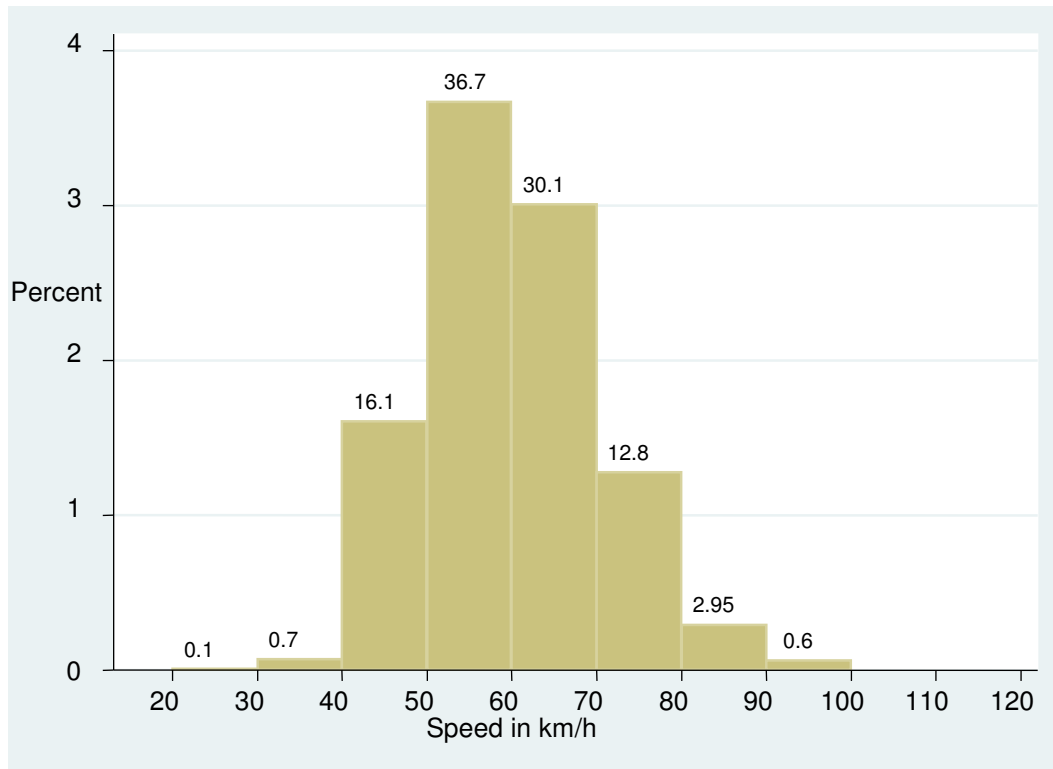
Most cars observed on urban residential roads with a 50km/h speed limit were travelling at 50km/h or under. The average car travel speed on urban residential roads (50km/h) was 42km/h with a standard deviation of 8.4km/h.

On arterial roads in urban areas, 15% of cars were travelling under the speed limit in 50km/h zones, 48% travelled between 50-60km/h, while 28% travelled under the speed limit when in 60 km/h zones.

Percentage of cars exceeding speed limit, 2005-2013



Distribution of cars free speed on urban national roads in 2013



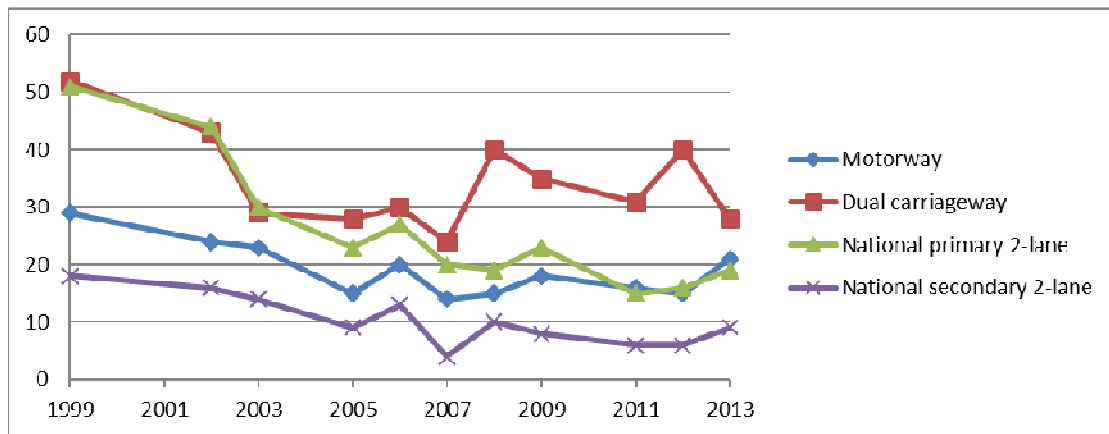
1.3 Free Speed on Rural Roads

On most 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 92/h with a standard deviation of 18.4km/h.

The 85th percentile value of car speed on motorways (120km/h) was 123km/h.

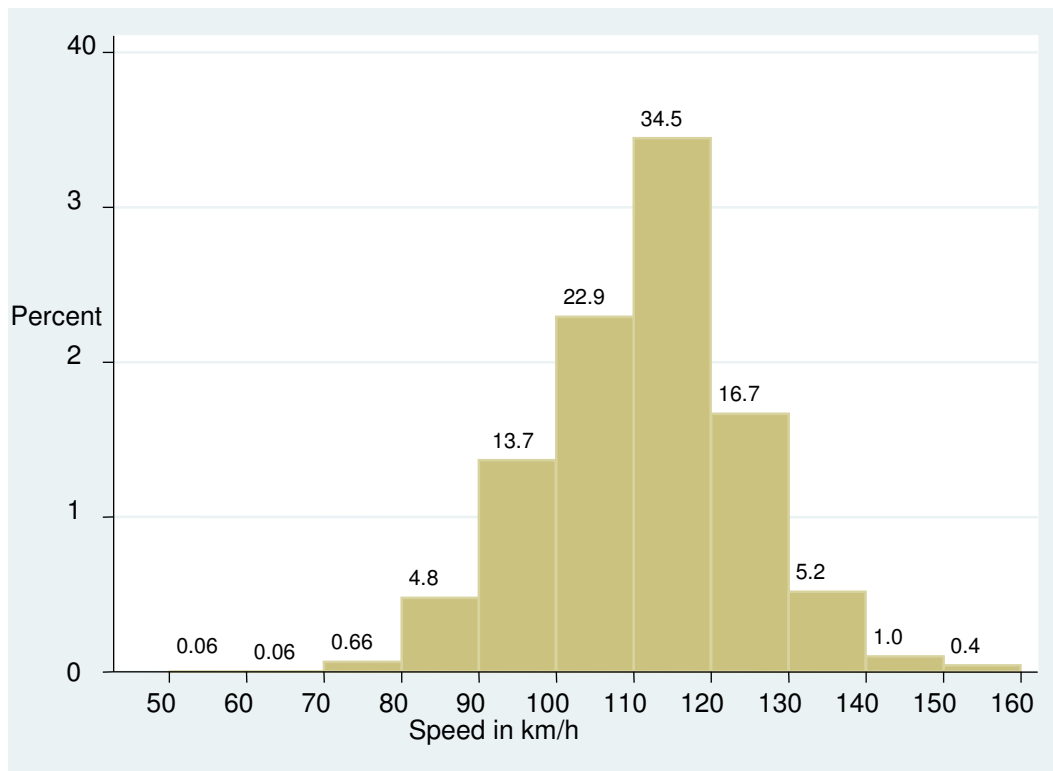
22% of cars were observed travelling at speeds more than the posted speed limit on rural roads.

Percentage of cars exceeding speed limit on rural roads, 1999-2013



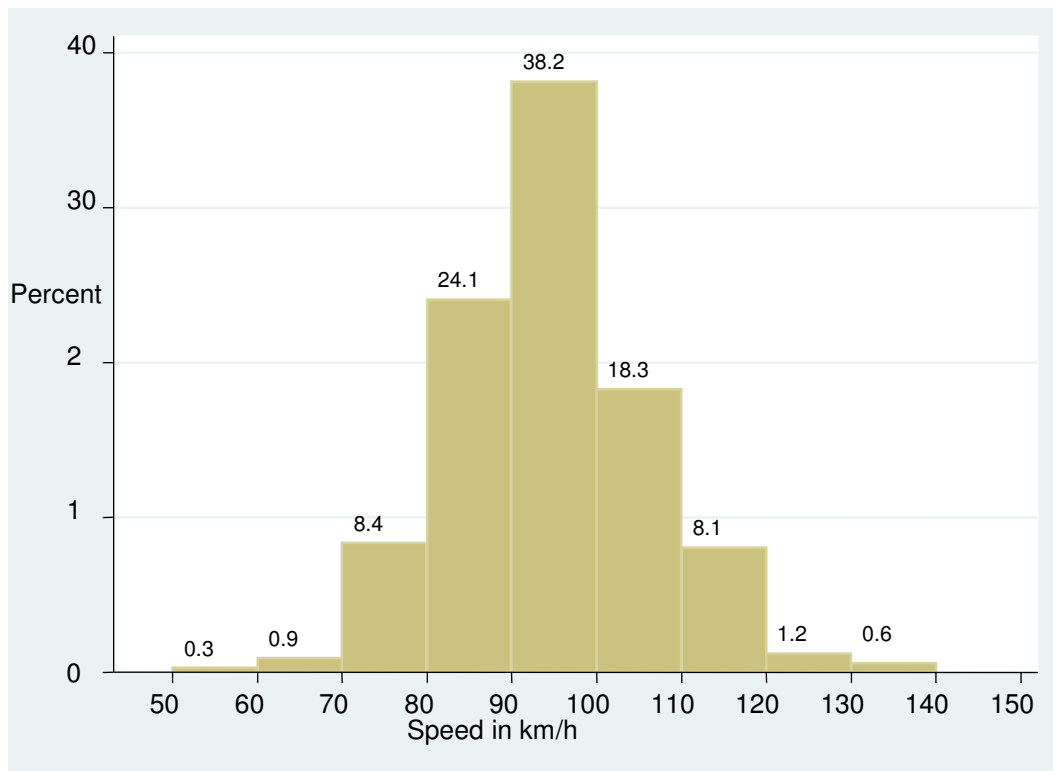
On motorways, 79% of cars travelled at speeds less than or equal to 120km/h. However 7% of cars travelled at 130km/h or above.

Distribution of cars free speed on motorways in 2013



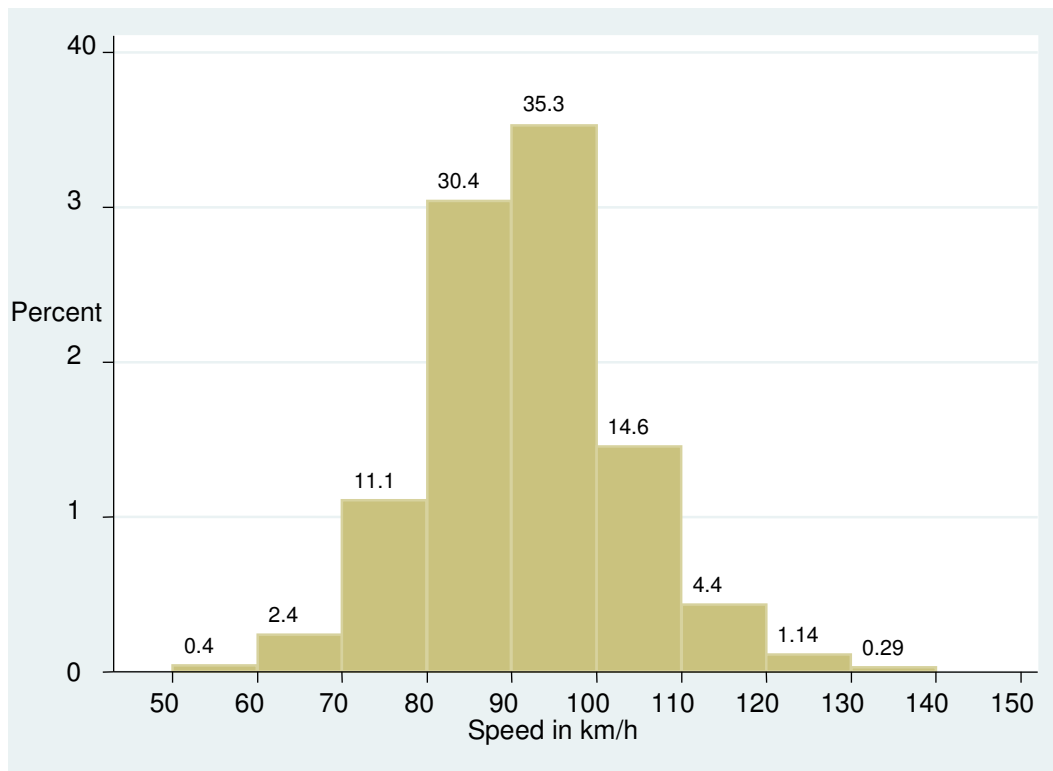
On dual carriageways where a speed limit of 100km/h applies, 72% of cars travelled below the speed limit. However, 1.8% of cars travelled at speeds between 120km/h and 140km/h.

Distribution of cars free speed on dual carriageways in 2013



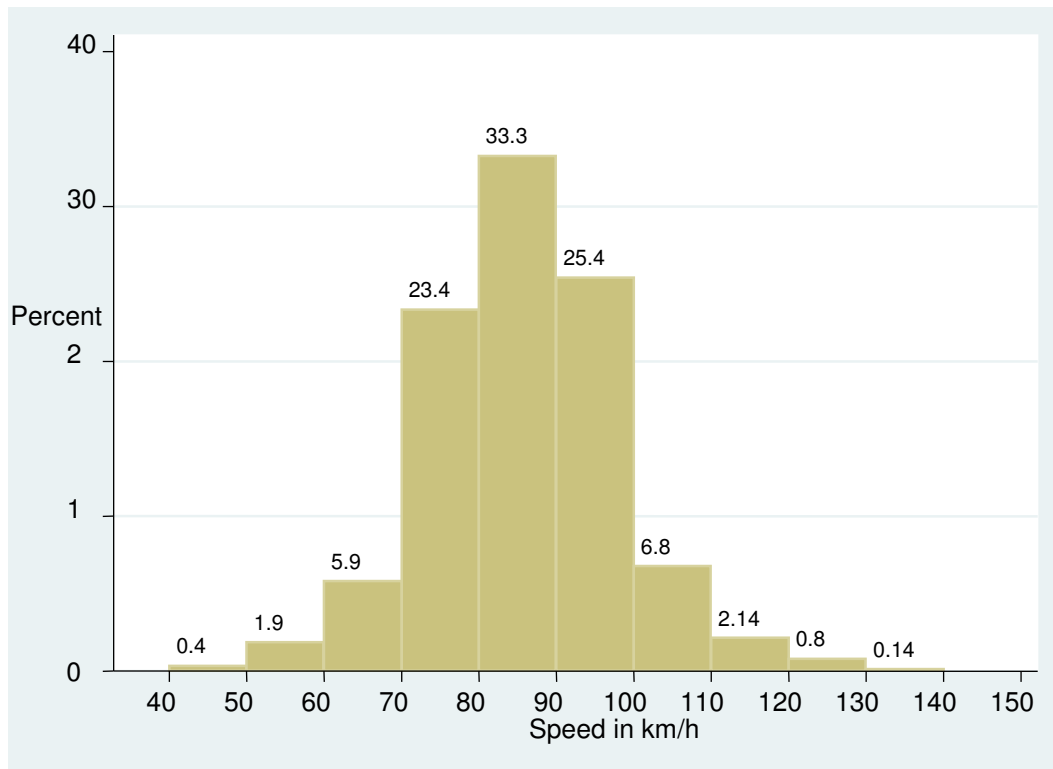
On national primary roads, 80% of cars travelled below 100 km/h, 1% cars travelled between 120km/h to 140km/h.

Distribution of cars free speed on national primary roads in 2013



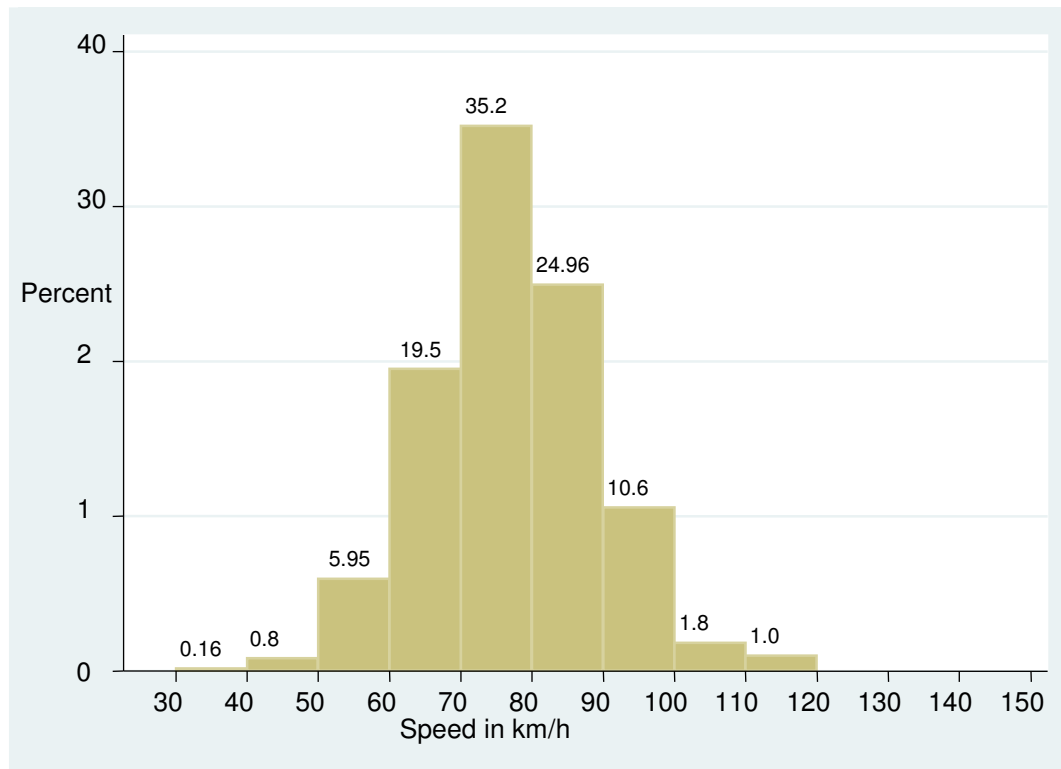
Compliance with the speed limit on national secondary roads where the same speed limit applies was even greater at 90% of cars travelling below the speed limit.

Distribution of cars free speed on national secondary roads in 2013



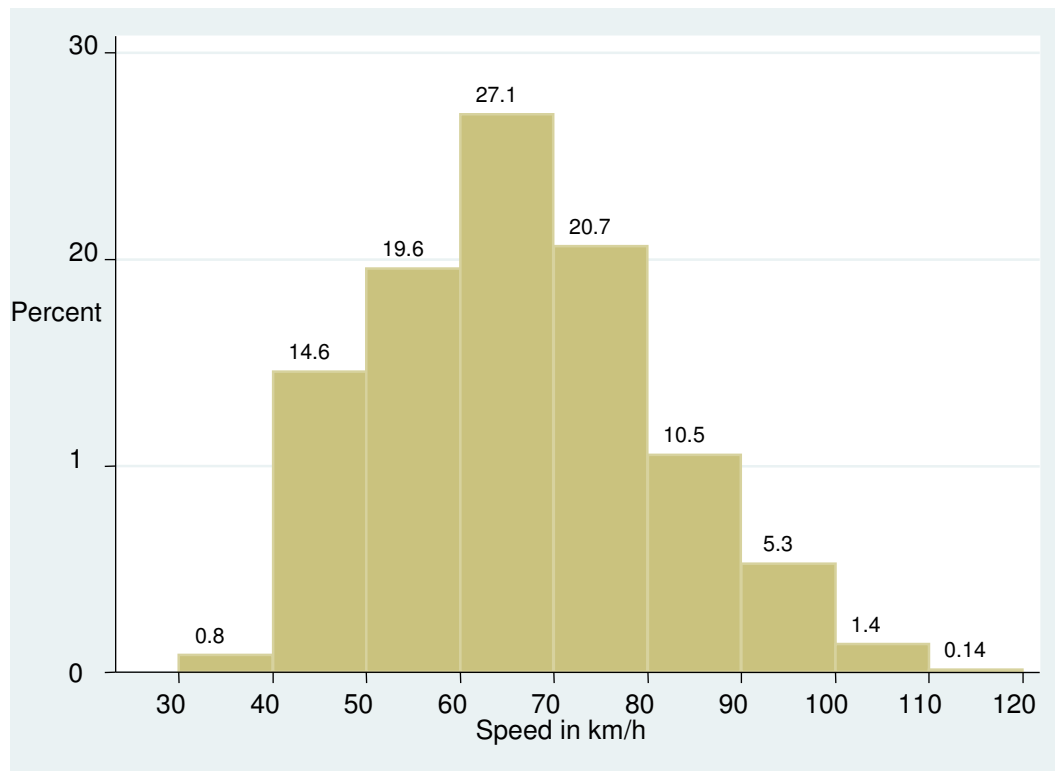
On regional roads, 62% of cars travelled at less than 80km/h with 35% of cars travelling between 80km/h to 100km/h 35% and 3% travelling between 100km/h to 120km/h.

Distribution of cars free speed on regional roads in 2013



On local roads with 80km/h speed limit 83% of cars travelled at less than 80km/h with 16% travelling between 80km/h and 100km/h and with only 2% travelling between 100km/h and 120km/h.

Distribution of cars free speed on local roads in 2013



2 Free Speed Survey Results - Rigid

2.1 Overview

A total of 2,684 rigid trucks were surveyed on the road network in Ireland in 2013. 18% (495) of rigid trucks surveyed were on urban roads. 58% of all rigid trucks observed on urban roads were speeding (i.e. driving at a speed greater than posted speed limit). Note that the speed limit for rigid vehicles is 80km/h on all roads with a posted speed limit of more than 80km/h.

82% of rigid trucks surveyed were on rural roads (i.e. motorway, dual carriageways national primary and national secondary roads, regional and local roads). 61% of all rigid trucks observed on rural roads were speeding.

Table below gives a breakdown of the relative level of rigid truck driver violations by speed limit for all road types in 2013.

Relative level of rigid truck driver violations by vehicle specific speed limit in 2013

Road	Speed limit (Km/h)	Mean violation (Km/h)	Ratio violation/speed limit
Urban National (50km/h)	50	8.1	0.16
Urban National (60km/h)	60	5	0.08
Motorway (120km/h)*	80	6.5	0.08
Dual Carriageway (80km/h)	80	5.7	0.07
Dual Carriageway (100km/h) *	80	6.5	0.08
National Primary (100km/h) *	80	6.1	0.08
National Primary (80km/h)	80	4.6	0.06
National Secondary (100km/h) *	80	5.4	0.07
Regional Road (80km/h)	80	4	0.05
Urban Non-National (50km/h)	50	6.2	0.12
Local Road (50km/h)	50	8.7	0.17
Local Road (80km/h)	80	6.9	0.09

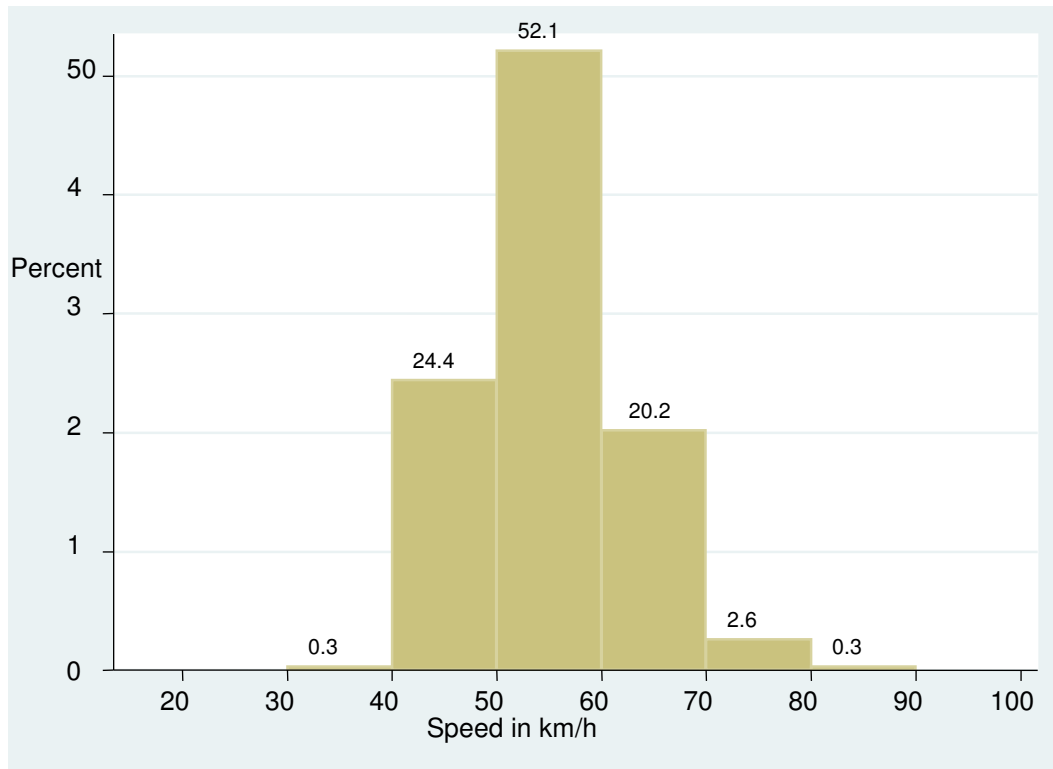
*Speed limit capped at 80km/h

2.2 Free Speed on Urban Roads

On urban national roads, within a 50km/h speed limit, 73% of rigid vehicles exceeded 50km/h. 23% of the rigid vehicles were travelling

between 60 and 80km/h The average speed of rigid trucks on urban national roads was about 5km/h above the 50 km/h posted speed limit.

Distribution of rigid trucks free speed on urban national roads (50km/h zone) in 2013



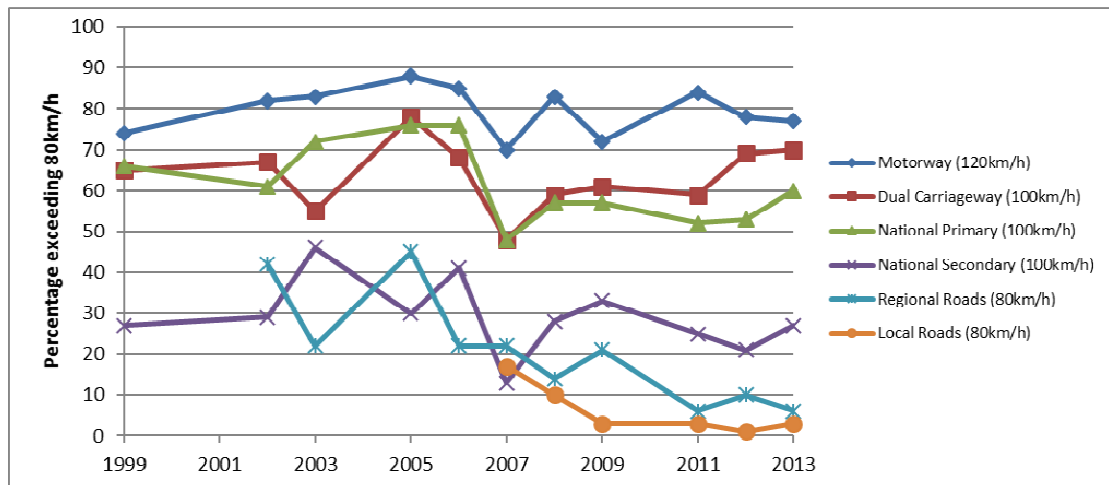
2.3 Free Speed on Rural Roads

The average rigid speed on rural roads was 80km/h with a standard deviation of 9.8km/h.

The 85th percentile value of rigid's speed on motorway was 89km/h. 61% of all rigid trucks observed on rural roads were driving at a speed greater than the limit set for their vehicle type (80km/h).

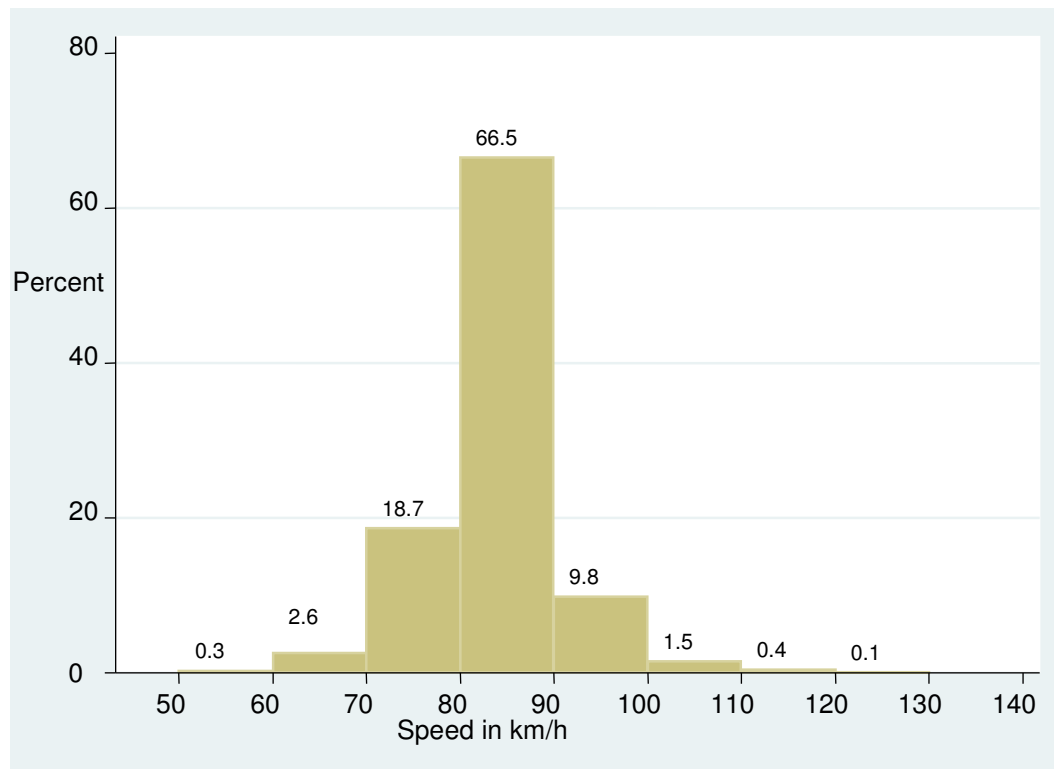
On motorways, dual carriageways, national primary and national secondary roads, the proportion of cars complying with speed limits has increased since 1999.

Percentage of rigid's exceeding speed limit on rural roads, 1999-2013



On motorways, 23% of rigid trucks travelled at speeds less than or equal the limit 80km/h with 73% travelling between 80km/h and 100km/h. However, 2% of rigid trucks travelled at 100km/h or above.

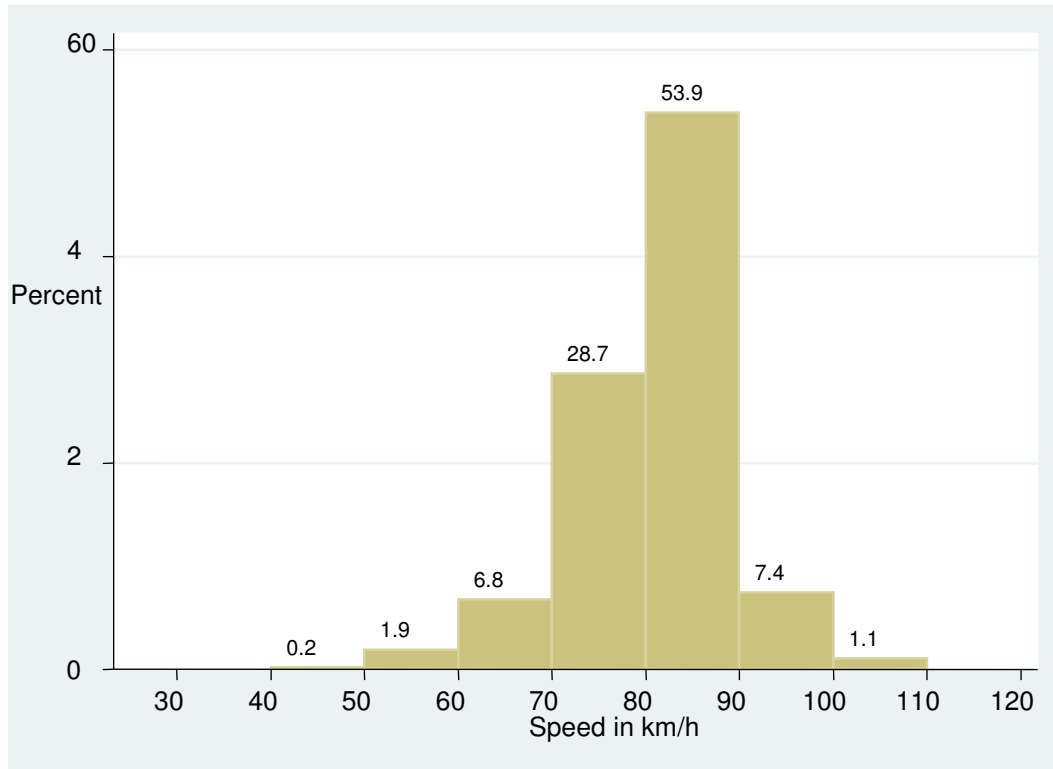
Distribution of rigid trucks free speed on motorways in 2013



On dual carriageways with a speed limit of 100km/h, 31% of rigid trucks were travelling below 80km/h. However, 12% of rigid trucks were travelling between 90km/h and 100km/h.

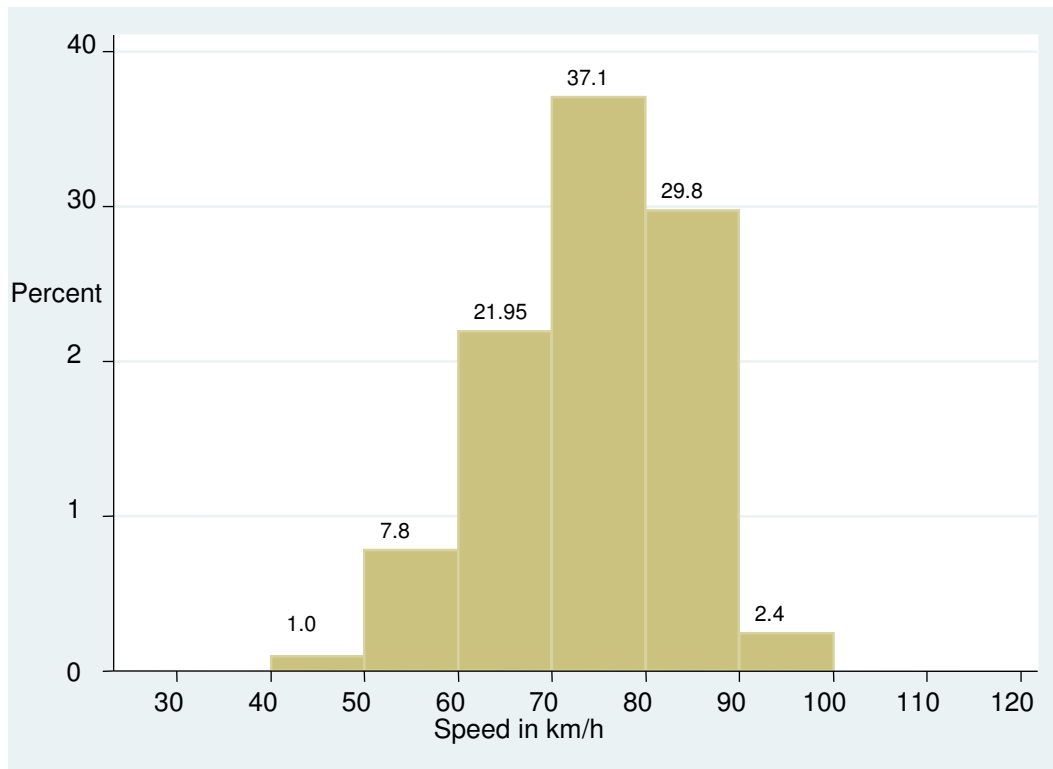
On national primary roads, 38% of rigid trucks travelled below the speed limit (80 km/h).

Distribution of rigid trucks free speed on national primary roads in 2013



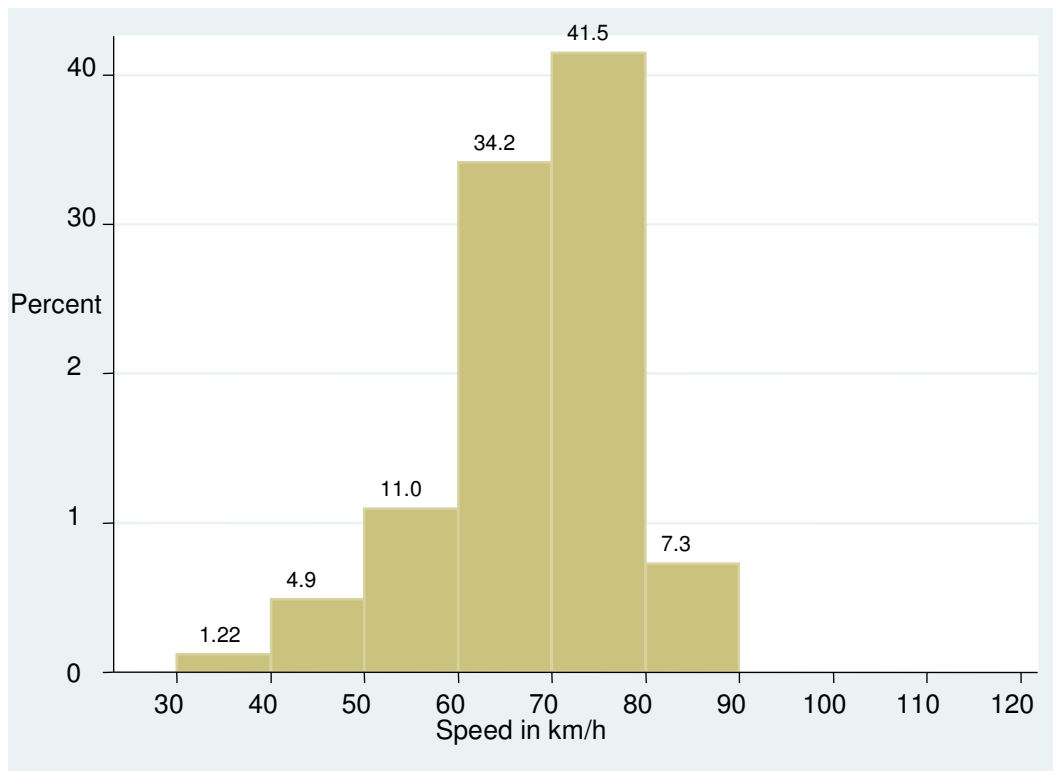
Compliance with the speed limit on national secondary roads where the same speed limit applies was greater with 68% of rigid trucks travelling below the speed limit. However, 2% of vehicles exceeded the speed limit by between 10km/h and 20km/h.

Distribution of rigid trucks free speed on national secondary roads in 2013



On regional roads with 80km/h speed limit, compliance was even greater with 93% of rigid trucks travelling below the speed limit of 80km/h*.

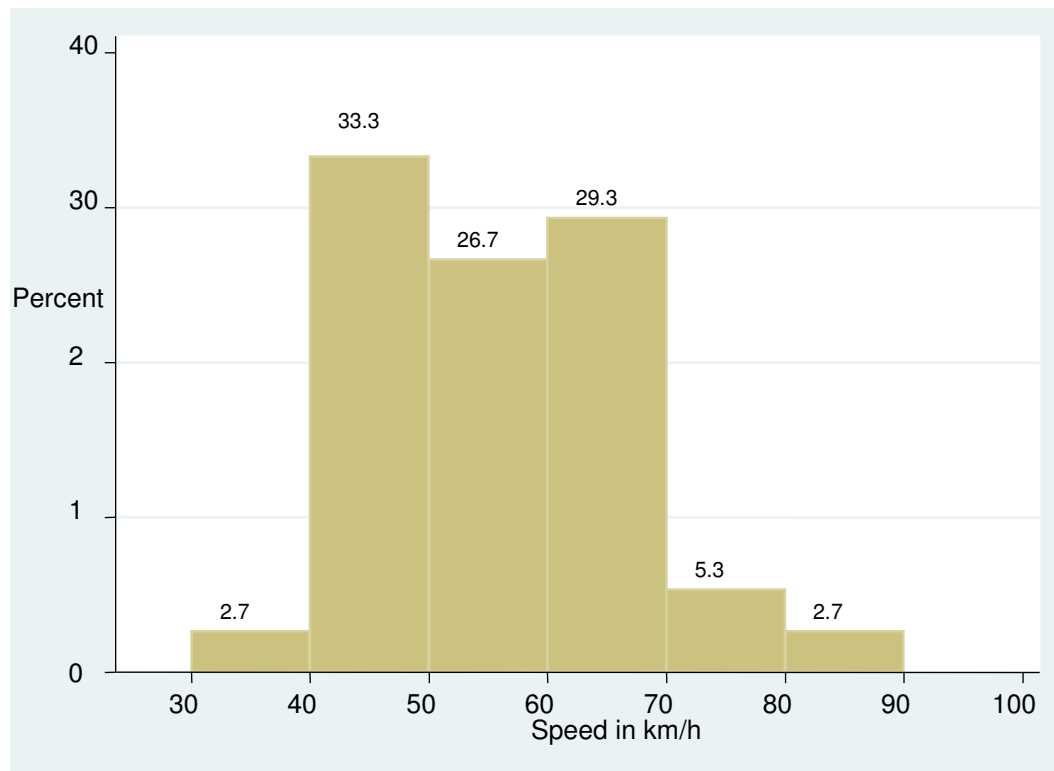
Distribution of rigid trucks free speed on regional roads in 2013



*Note: this is based on a small sample of 82 rigid trucks on regional roads.

On local roads where a speed limit of 80km/h also applies, 97% of rigid's travelled at less than the speed limit*.

Distribution of rigid's free speed on local roads in 2013



*Note: this is based on a small sample of 88 rigid trucks on local roads.

3 Free Speed Survey Results- Articulated Vehicle

3.1 Overview

A total of 1,386 articulated vehicles were surveyed on the road network in Ireland in 2013. 19% (268) of articulated vehicles surveyed were on urban roads (i.e. urban national at the 50 km/h speed limit, urban national at the 60 km/h speed limit and urban non-national). 62% of all articulated vehicles observed on urban roads were speeding (i.e. driving at a speed greater than posted speed limit). Note that the speed limit for rigid and articulated vehicles is 80km/h on all roads with a posted speed limit of more than 80km/h.

81% of articulated vehicles surveyed were on rural roads (i.e. motorway, dual carriageways national primary and national secondary roads, regional and local roads). 67% of all articulated vehicles observed on rural roads were speeding (i.e. driving above 80km/h).

Table below gives a breakdown of the relative level of articulated vehicle

driver violations by speed limit for all road types in 2013.

Relative level of articulated vehicle driver violations by speed limit in 2013

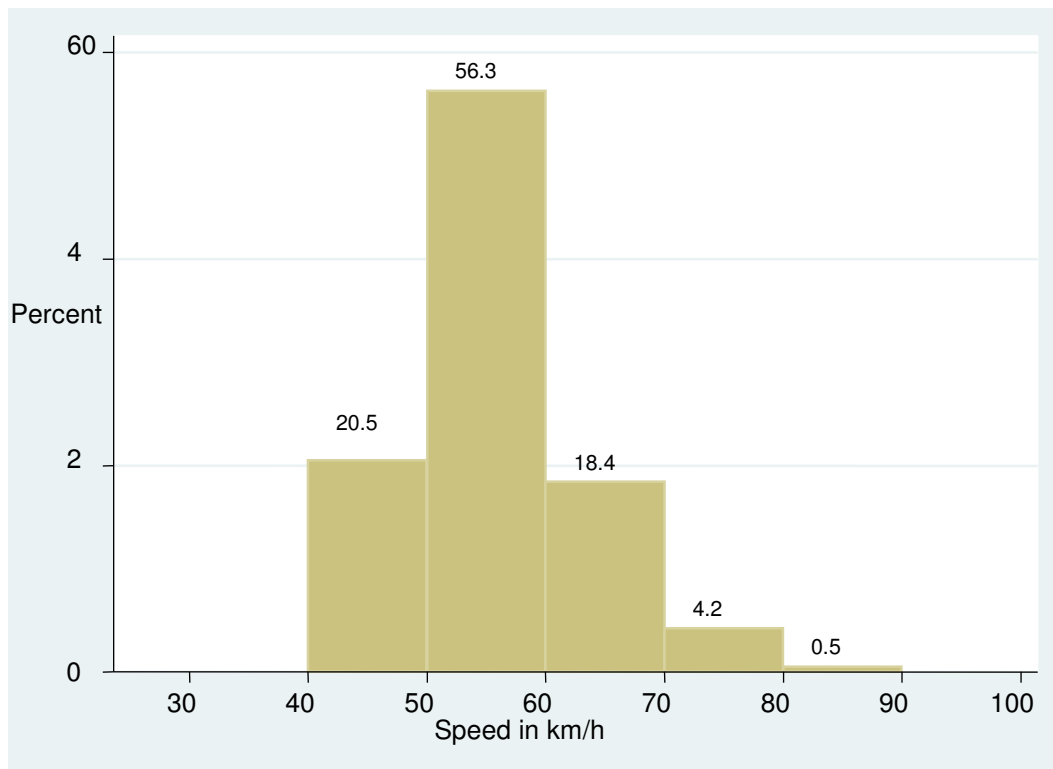
Road	Speed limit (Km/h)	Mean violation (Km/h)	Ratio violation/speed limit
Urban National (50km/h)	50	8.5	0.17
Urban National (60km/h)	60	5.7	0.10
Motorway (120km/h)*	80	6	0.08
Dual Carriageway (80km/h)	80	5.6	0.07
Dual Carriageway (100km/h) *	80	5.7	0.07
National Primary (100km/h) *	80	6.3	0.08
National Primary (80km/h)	80	6.5	0.08
National Secondary (100km/h) *	80	4.9	0.06

**Speed limit capped at 80km/h*

3.2 Free Speed on Urban Roads

On urban national roads with a 50km/h speed limit, 77% of articulated vehicles drivers exceeded the speed limit; 23% of articulated vehicles exceeded the speed limit on these roads by 10km/h or more. The average speed of articulated vehicles on urban national roads was about 6km/h above the 50 km/h posted speed limit. Moreover, only 23% of drivers were observed travelling at or below the speed limit.

Distribution of articulated vehicles free speed on urban national roads 50km/h zone in 2013



3.3 Free Speed on Rural Roads

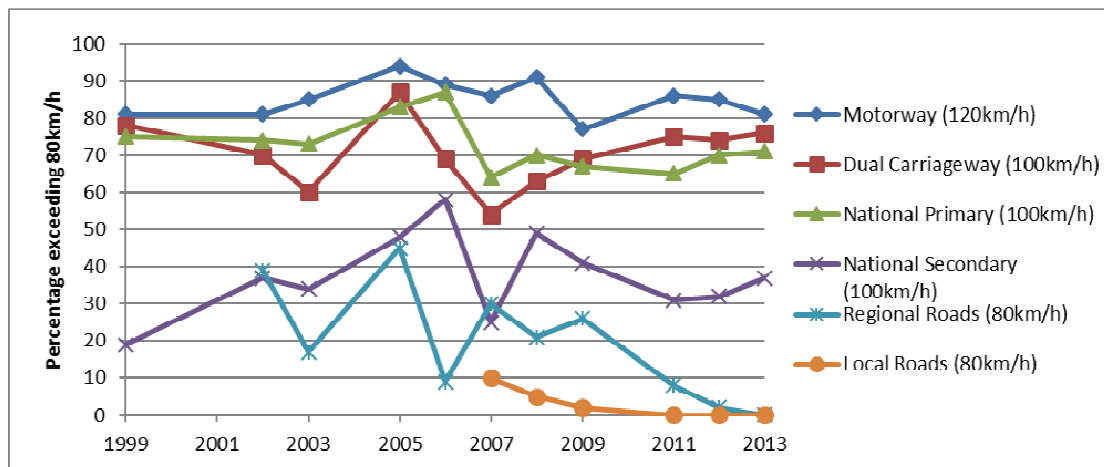
On most rural roads, the average free speed of articulated vehicles was below the speed limit across all road types. The average articulated vehicle speed on rural roads was 81.6km/h with a standard deviation of 7.9km/h.

The 85th percentile value of articulated vehicle speed on motorway was 88.6km/h.

67% of articulated vehicles were observed travelling at speeds more than the posted speed limit on rural roads.

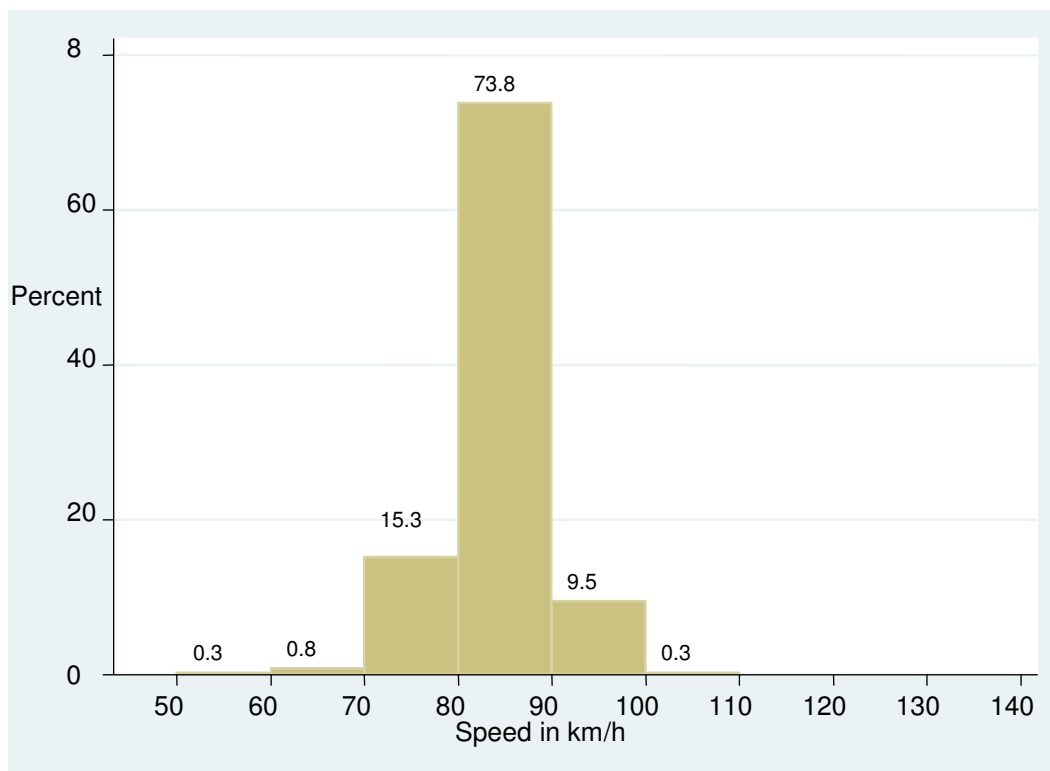
On motorways, dual carriageways, national primary and national secondary roads, the proportion of cars complying with speed limits has increased since 1999.

Percentage of articulated vehicles exceeding speed limit on rural roads, 1999-2013



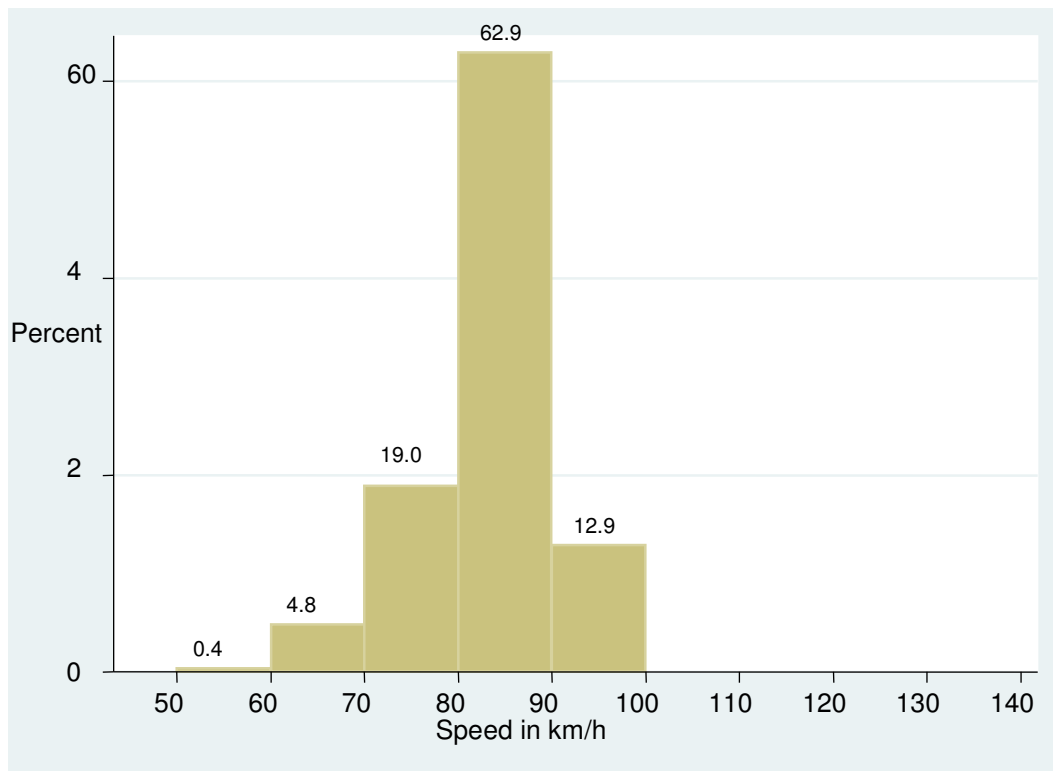
On motorways, 74% of articulated vehicles were travelling between 80 and 90km/h and 16% travelled under 80km/h.

Distribution of articulated vehicles free speed on motorways in 2013



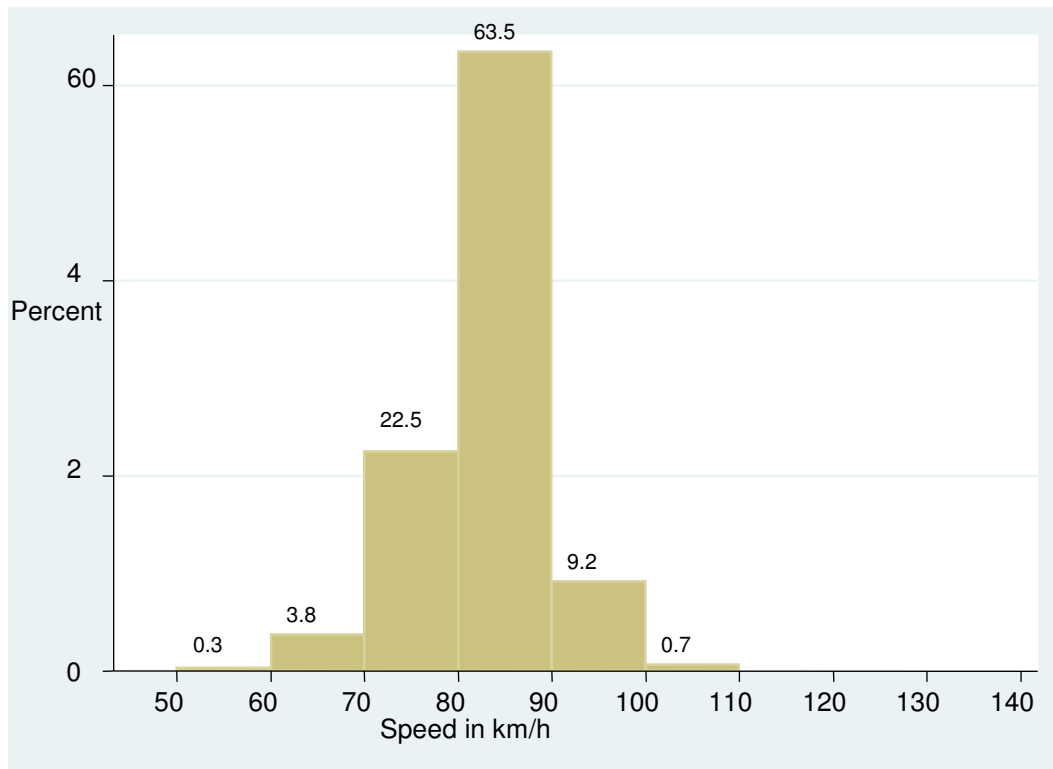
On dual carriageways with 100km/h speed limit, 24% of articulated vehicles travelled at less than the speed limit for these vehicles. 76% travelled above the speed limit with 12% of articulated vehicles travelling 10km/h or more above the speed limit.

Distribution of articulated vehicles free speed on dual carriageways with 100km/h speed limit in 2013



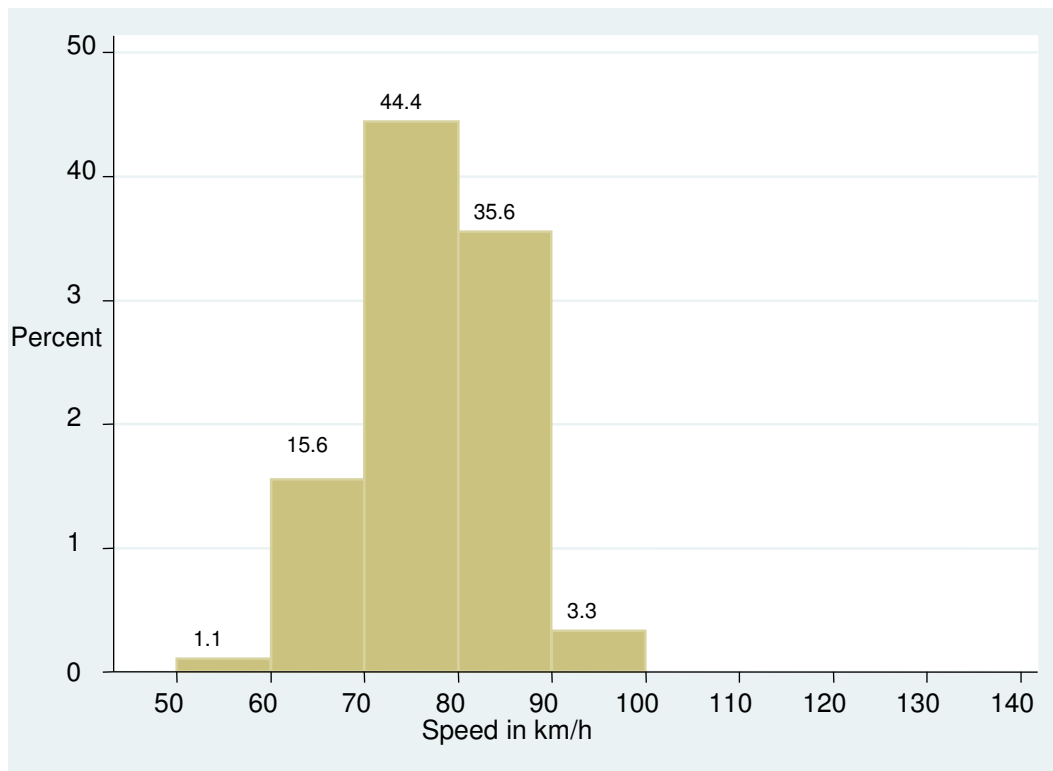
On national primary roads with speed limit of 100km/h, 64% of articulated vehicles travelled between 80km/h and 90km/h. 10% of these vehicles exceeded the speed limit by between 10km/h and 20km/h.

Distribution of articulated vehicles free speed on national primary roads with speed limit of 100km/h in 2013



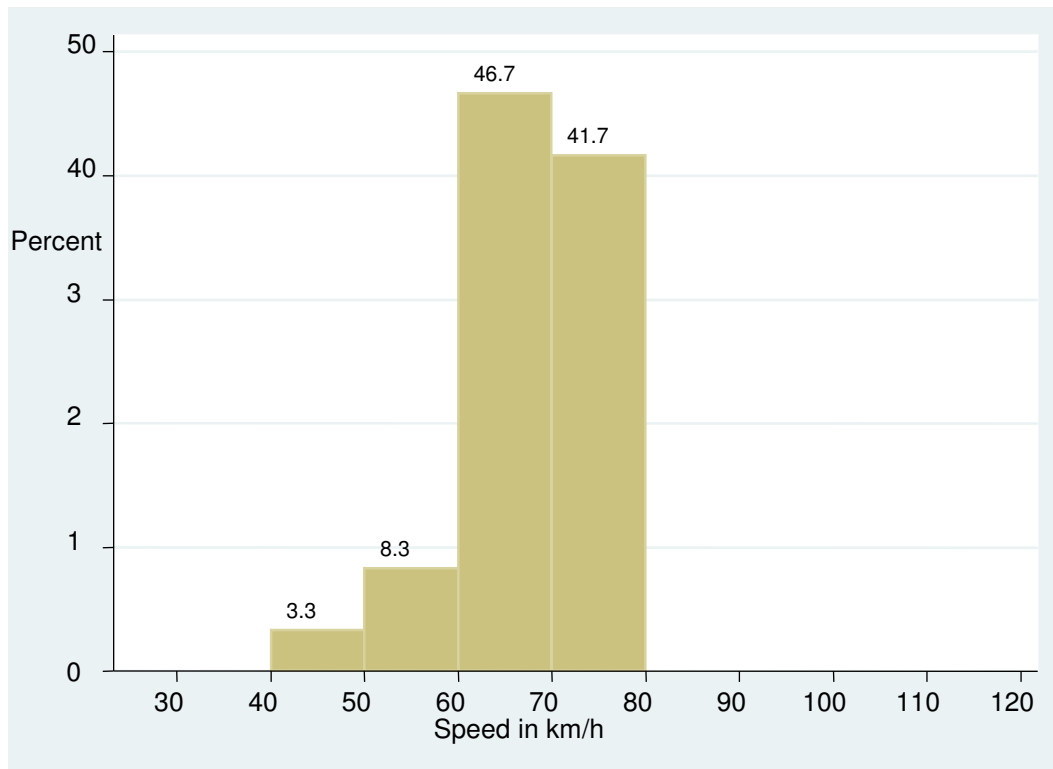
On national secondary roads 36% of articulated vehicles travelled between 80km/h and 90km/h. 61% of articulated vehicles travelled under the vehicle specific speed limit of 80km/h.

Distribution of articulated vehicles free speed on national secondary roads in 2013



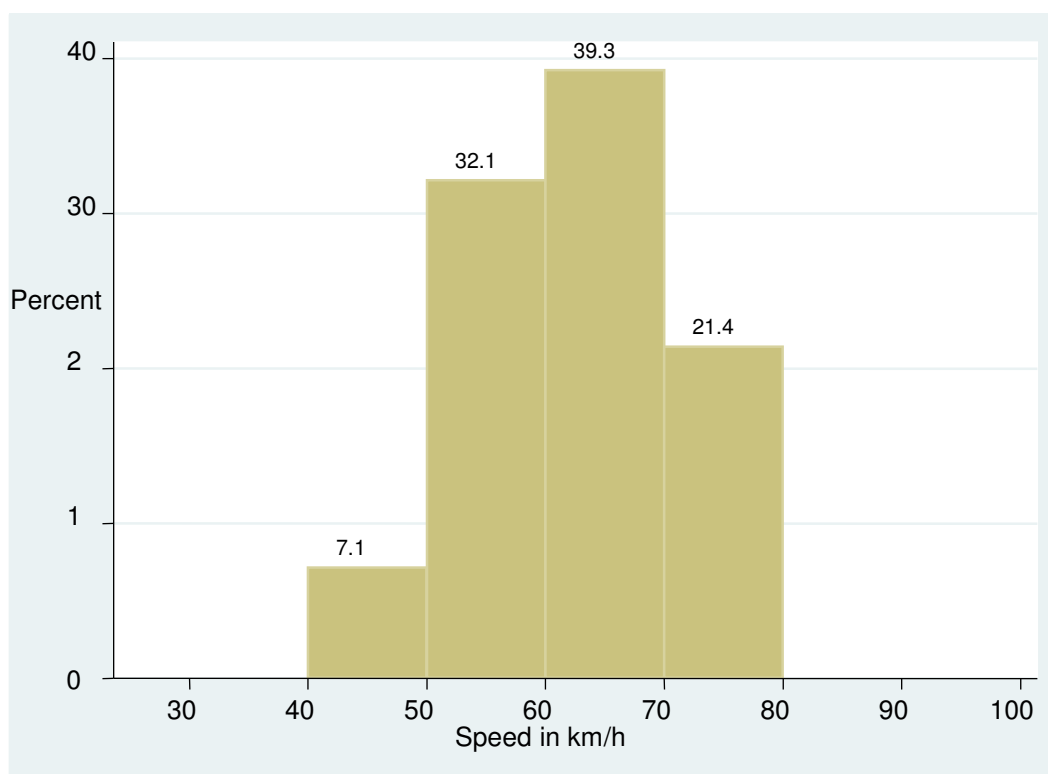
On regional roads, all the articulated vehicles observed were travelling below the speed limit.. This is based on a small sample of 60 articulated vehicles observed on regional roads.

Distribution of articulated vehicles free speed on regional roads in 2013



On local roads where a speed limit of 80km/h also applies, all (100%) of articulated vehicles observed travelled at less than the speed limit. Please note that this is based on a small sample of 28 articulated vehicles observed on local roads.

Distribution of articulated vehicles free speed on local roads in 2013



4 Free Speed Survey Results - Single Decker Buses

4.1 Overview

A total of 504 single decker buses were surveyed on the road network in Ireland in 2013. 13% (65) of single decker buses surveyed were on urban roads (i.e. urban national at the 50 km/h speed limit, urban national at the 60 km/h speed limit and urban non-national roads). 32% of all single decker buses observed on urban roads were speeding (i.e. driving at a speed greater than posted speed limit). Note that the speed limit for single decker is 80km/h on all roads with a posted speed limit of more than 80km/h.

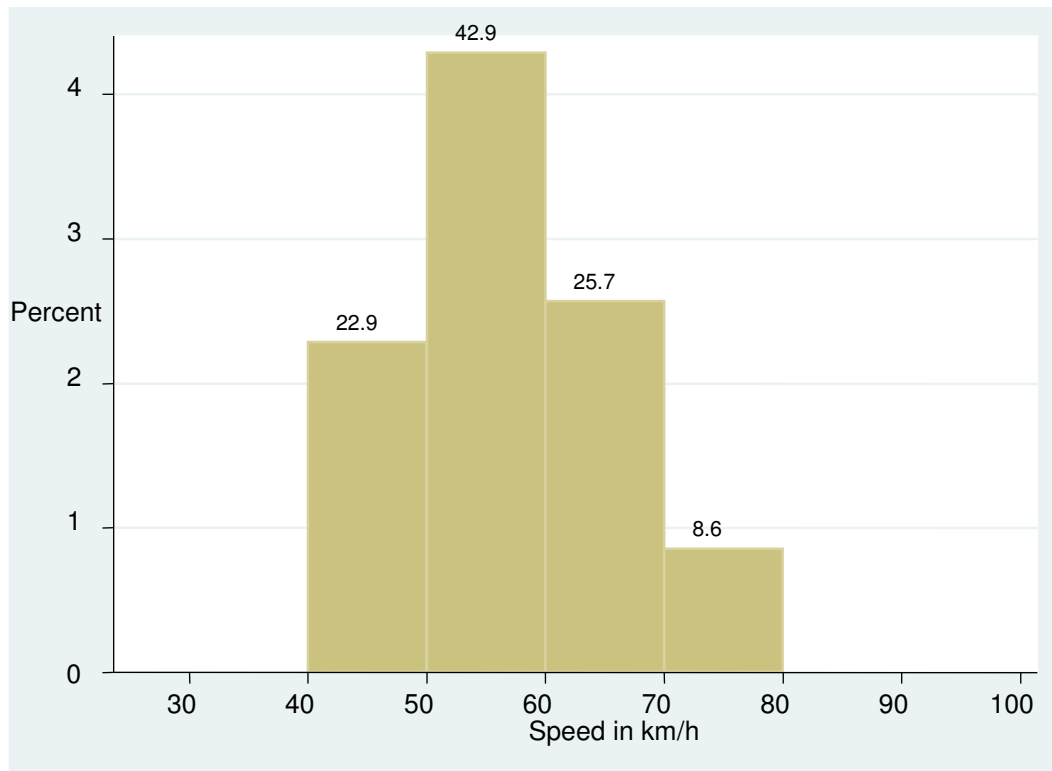
87% of single decker buses surveyed were on rural roads (i.e. motorway, dual carriageways national primary and national secondary roads, regional and local roads). 68% of all single decker buses observed on rural roads were speeding.

4.2 Free Speed on Urban Roads

On urban national roads with a 50km/h speed limit, 27 out of 35 (77%) single decker bus drivers observed exceeded the speed limit; 12 out of 35 single decker buses observed exceeded the speed limit

on these roads by 10km/h or more. The average speed of single decker buses on urban national roads was about 7km/h above the 50 km/h posted speed limit

Distribution of single decker buses free speed on urban national roads with a 50km/h speed limit in 2013



4.3 Free Speed on Rural Roads

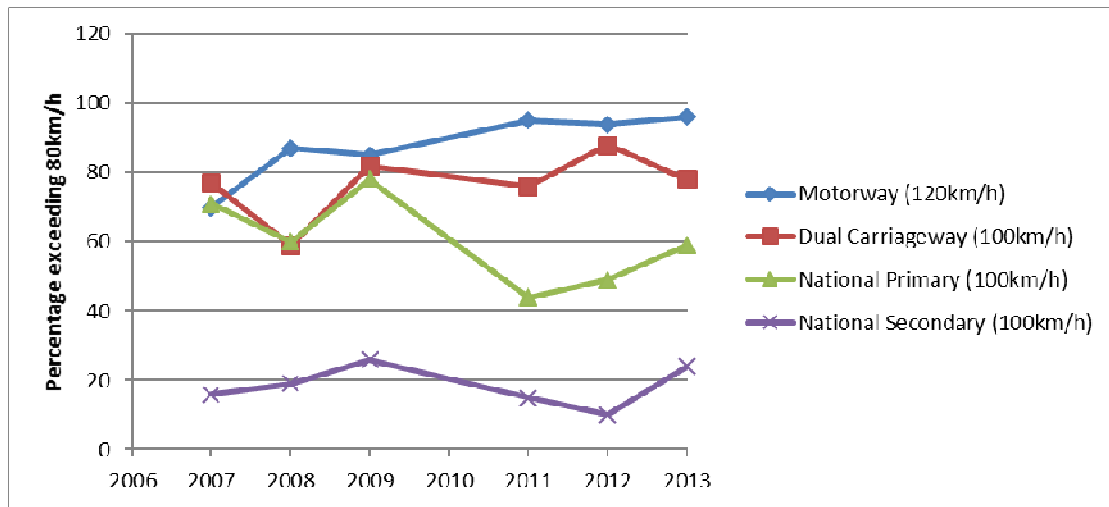
On most rural roads, the average free speed of single decker buses was below the speed limit on all road types. The average single decker buses speed on rural roads was 84km/h with a standard deviation of 11.7km/h.

The 85th percentile value of single decker buses speed on motorway was 98km/h.

68% of single decker buses were observed travelling at speeds more than the posted speed limit on rural roads.

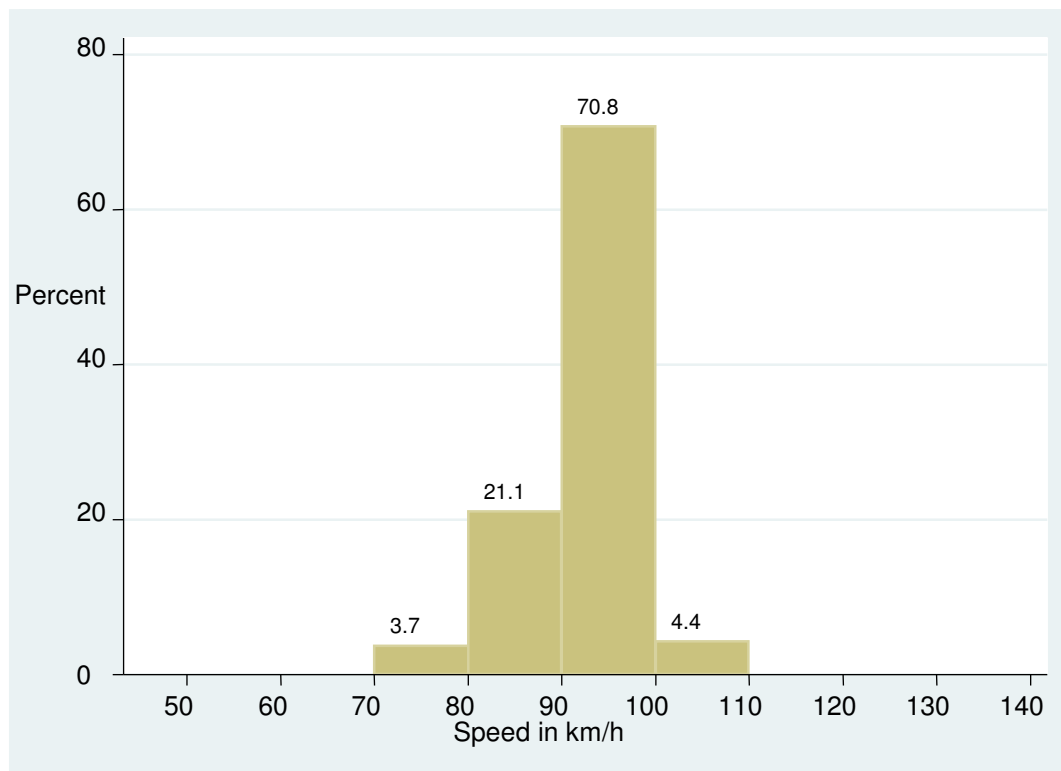
On motorways, dual carriageways, national primary and national secondary roads, the proportion of single decker buses exceeding 80km/h has increased since 2007.

Percentage of single decker buses exceeding speed limit on rural roads, 2007-2013



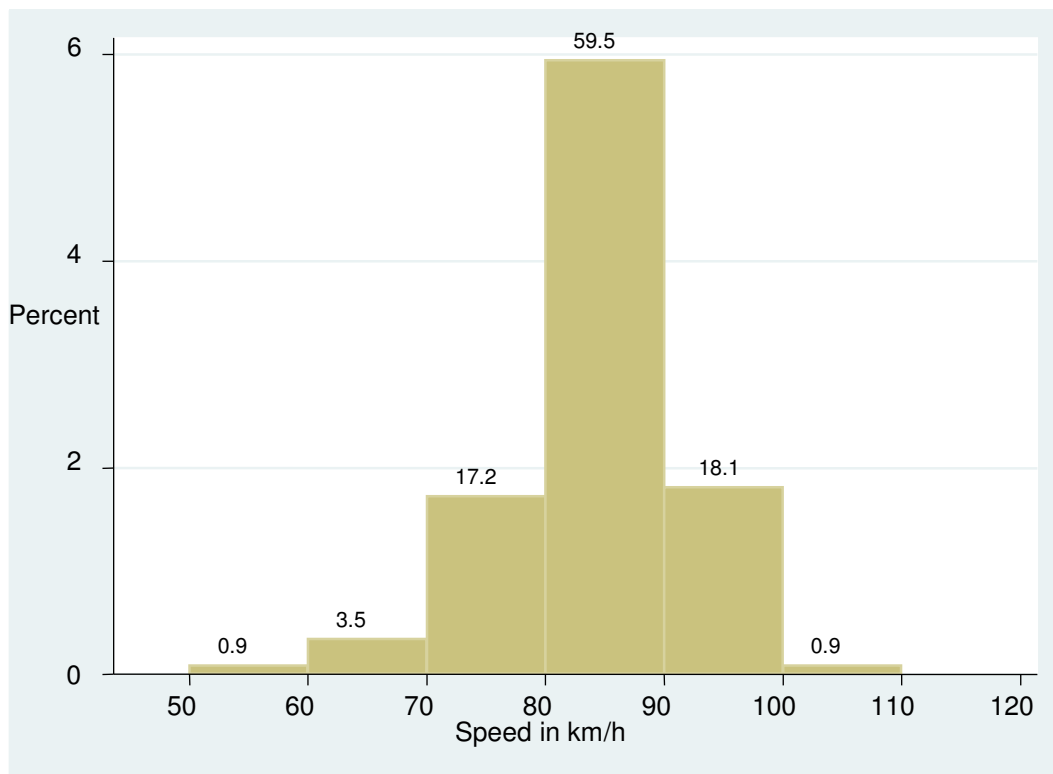
On motorways, 21% of single decker buses were travelling between 80 and 90km/h, 71% travelled between 90km/h and 100km/h. This is based on observational survey of 161 single decker buses on motorways.

Distribution of single decker buses free speed on motorways in 2013



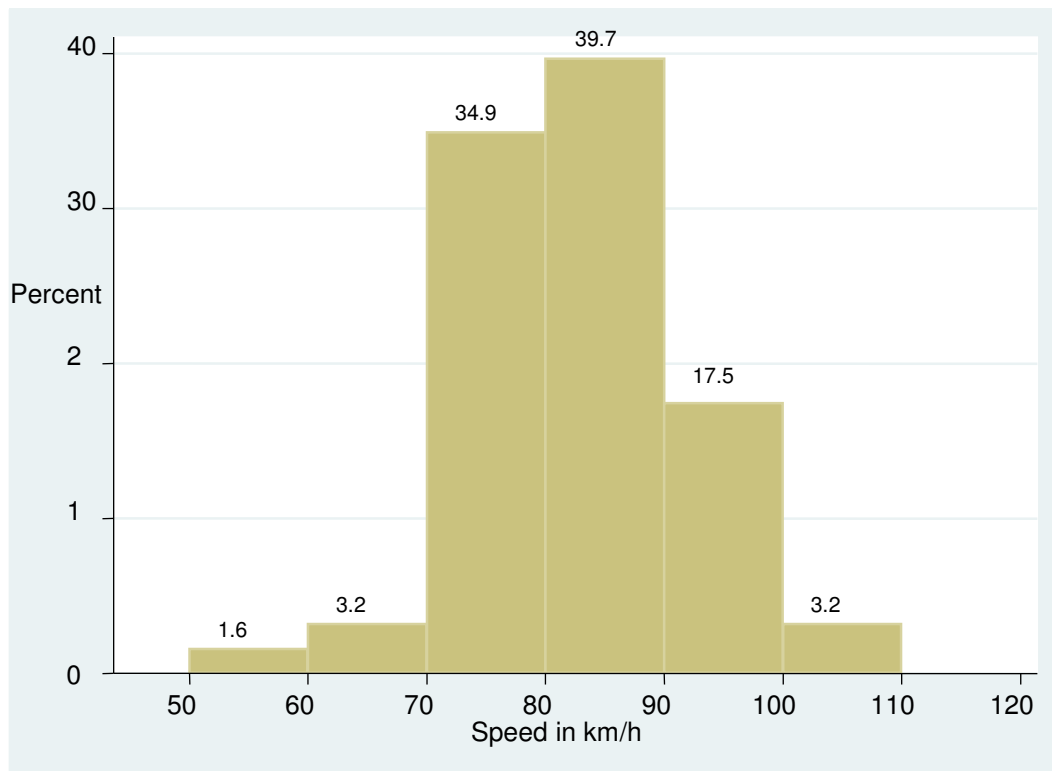
On dual carriageways with 100km/h speed limit, 22% of single decker buses travelled at less than 80km/h. This is based on observational survey of 116 single decker buses on dual carriageways with 100km/h speed limit.

Distribution of single decker buses free speed on dual carriageways with 100km/h speed limit in 2013



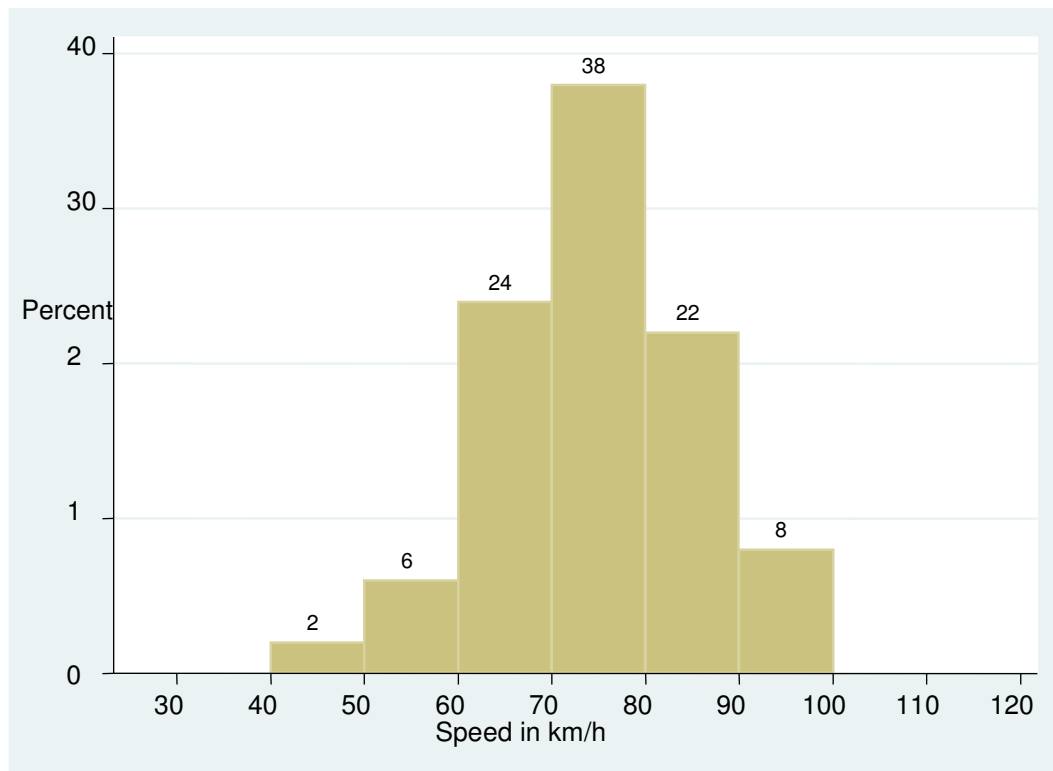
On national primary roads with 100km/h speed limit, 40% of single decker buses travelled between 80km/h and 90km/h. 18% of these vehicles exceeded the 80km/h by between 10km/h and 20km/h. This is based on observational survey of 63 single decker buses on national primary roads with 100km/h speed limit.

Distribution of single decker buses free speed on national primary roads with 100km/h in 2013



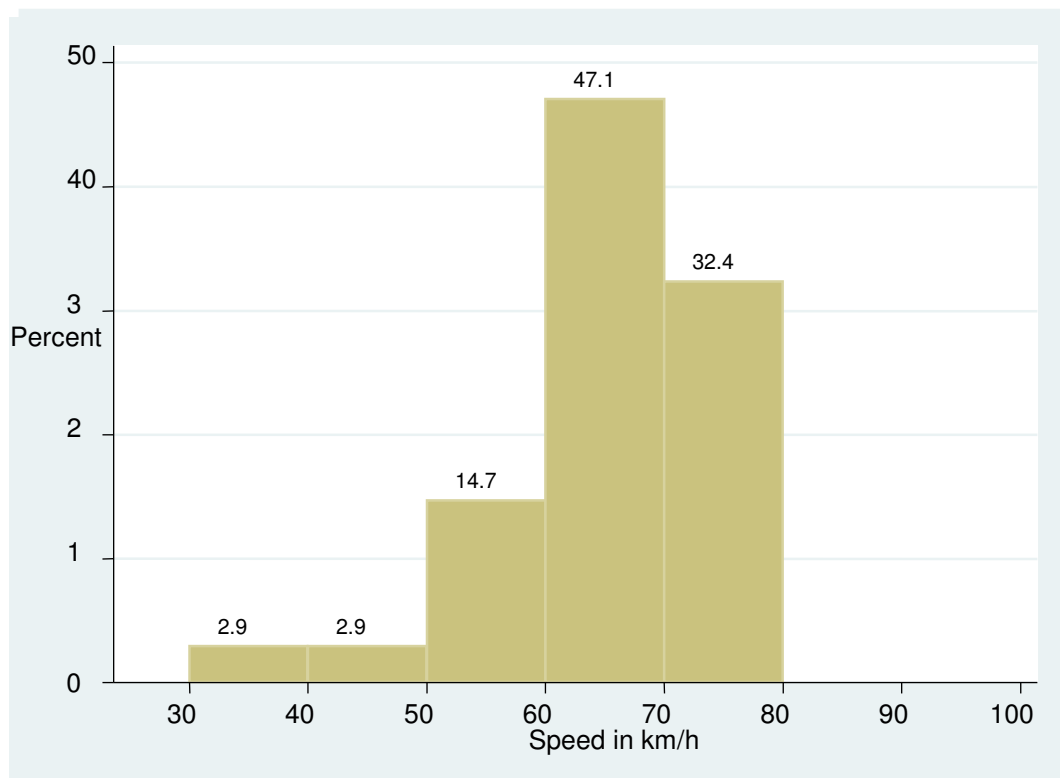
On national secondary roads, 38% of single decker buses travelled between 70km/h and 80km/h. 32% of single decker buses travelled under the 70km/h with 8% travelling between 90km/h and 100km/h. This is based on observational survey of 50 single decker buses on national secondary roads with 100km/h speed limit.

Distribution of single decker buses free speed on national secondary roads in 2013



On regional roads, 47% of single decker buses travelled between 60km/h and 70km/h. 21% of vehicles travelled under the 60km/h. This is based on observational survey of 34 single decker buses on regional roads with 80km/h speed limit.

Distribution of single decker buses free speed on regional roads in 2013



5 Summary

Cars

- About 25% of all cars observed on rural roads were speeding (i.e. driving at a speed greater than posted speed limit);
-
- 58% of all cars observed on urban roads were speeding.
- 82% of all cars observed on urban national roads with 50km/h speed zone were speeding (i.e. driving at a speed greater than posted speed limit);
- On arterial roads in urban areas, 15% of cars were travelling under the speed limit in 50km/h zones, 48% travelled between 50-60km/h;
- In urban residential areas with a 50km/h speed limit, the number of cars exceeding the speed limit increased from 10% in 2012 to 15% in 2013;

- 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 41km/h with a standard deviation of 8.6km/h;

Rigid trucks

- For rigid trucks, the average free speed was below the vehicle specific speed limit for all roads except that on motorway (80km/h), Urban National (50km/h) and Local Roads(50km/h);
- On motorways, 67% of rigid vehicles were travelling between 80 and 90km/h, 2% travelled between 100-120km/h, while 31% travelled under 80km/h on dual carriageways;
- The most frequent rigid vehicle speed range seen on rural roads was between 80-90km/h on motorways, dual carriageways and national primary, 70-80km/h on national secondary and regional roads;

Articulated vehicles

- 62% of all articulated trucks observed on urban roads were speeding (i.e. driving at a speed greater than posted speed limit);
- 67% 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;

6 Detailed Tables

Cars Free Speed in 2013 by Road Type

Road type	Avg. Speed (km/h)	50th Percentile Speed (km/h)	85th *Percentile Free Speed (km/h)	Number in Sample	Number speeding	% speeding
urban national -50km/h sign	60	60	71	1120	918	82
urban national -60km/h sign	64	63	76	280	171	61
urban arterial - 50km/h speed limit zone	58	57	66	980	920	81
urban arterial - 60km/h speed limit zone	66	64	75	1120	714	68
Residential – 50km/h	41	40	51	1335	203	15
Residential – 30km/h	31	31	36	90	51	57
Motorways – 120km/h	111	112	123	1679	347	21
Dual Carriageways – 80km/h	92	91	105	140	112	80
Dual Carriageways – 100km/h	95	95	106	980	276	28
National Primary Road – 100km/h	92	92	102	1260	240	19
National Primary Road – 80km/h	84	84	96	140	86	61
National Secondary Road – 100km/h	85	85	97	1400	120	9
Regional Roads – 80km/h	77	77	89	605	219	36
Regional Roads – 50km/h	53	53	63	280	166	59
Local Roads – 50km/h	63	63	74	140	118	84
Local Roads – 60km/h	56	56	62	140	29	21
Local Roads – 80km/h	66	66	82	721	121	17

Rigid Vehicles Free Speed in 2013 by Road Type

Road type	Avg. Speed (km/h)	50th Percentile Speed (km/h)	85th *Percentile Free Speed (km/h)	Number in Sample	Number speeding	% speeding
urban national -50km/h sign	55	55	63	307	224	73
urban national -60km/h sign	57	57	64	130	42	32
Motorways – 120km/h	84	84	89	732	562	77
Dual Carriageways – 80km/h	81	81	88	33	18	55
Dual Carriageways – 100km/h	83	84	89	591	4144	70
National Primary Road – 100km/h	81	82	88	457	274	60
National Primary Road – 80km/h	75	77	85	14	5	36
National Secondary Road – 100km/h	74	75	85	205	55	27
Regional Roads – 80km/h	68	69	77	82	5	6
Regional Roads – 50km/h	47	46	55	21	4	19
Local Roads – 50km/h	58	57	63	19	18	95
Local Roads – 60km/h	48	48	52	18	0	0
Local Roads – 80km/h	57	58	68	75	2	3

Articulated Vehicles Free Speed in 2013 by Road Type

Road type	Avg. Speed (km/h)	50th Percentile Speed (km/h)	85th *Percentile Free Speed (km/h)	Number in Sample	Number speeding	% speeding
urban national -50km/h sign	56	55	63	190	146	77
urban national -60km/h sign	58	58	63	65	19	29
Motorways – 120km/h	84	85	89	367	298	81
Dual Carriageways – 80km/h	84	85	88	30	25	83
Dual Carriageways – 100km/h	83	84	89	248	188	76
National Primary Road – 100km/h	83	84	89	293	207	71

National Secondary Road – 100km/h	77	77	85	90	33	37
Regional Roads – 80km/h	68	69	75	60	0	0
Local Roads – 80km/h	63	63	73	28	0	0

Single Decker Bus Free Speed in 2013 by Road Type

Road type	Avg. Speed (km/h)	50th Percentile Speed (km/h)	85th *Percentile Free Speed (km/h)	Number in Sample	Number speeding	% speeding
urban national -50km/h sign	57	55	66	35	27	77
urban national -60km/h sign	57	58	61	23	5	22
Motorways – 120km/h	93	95	98	161	155	96
Dual Carriageways – 100km/h	84	85	90	116	91	78
National Primary Road – 100km/h	82	82	92	63	37	59
National Secondary Road – 100km/h	74	75	83	50	12	24
Regional Roads – 80km/h	66	68	72	34	0	0

Motorcycle Free Speed in 2013 by Road Type

Road type	Avg. Speed (km/h)	50th Percentile Speed (km/h)	85th *Percentile Free Speed (km/h)	Number in Sample	Number speeding	% speeding
urban national -50km/h sign	62	62	68	6	6	100
Motorways – 120km/h	114	119	125	11	4	36
Dual Carriageways – 100km/h	90	93	105	11	2	18

Distribution of car free speeds (%) by road type, 2013

Road type	<50	50-60	60-80	80-100	100-120	120-140	140+
urban national -50km/h sign	17	37	43	3	-	-	-
urban national -60km/h sign	6	30	54	10	0	-	-
urban arterial - 50km/h speed limit zone	15	48	35	2	0	-	-
urban arterial - 60km/h speed limit zone	2	26	64	8	0	-	-
Residential – 50km/h	82	15	3	0	0	-	-
Residential – 30km/h	100	-	-	--	-	-	-
Motorways – 120km/h	-	0	1	19	57	22	1
Motorways – 80km/h	-	-	16	53	31	1	-
Dual Carriageways – 100km/h	0	0	9	62	26	2	-
National Primary Road – 100km/h	0	0	11	67	20	1	-
National Primary Road – 80km/h	0	2	35	52	9	1	-
National Secondary Road – 100km/h	0	2	29	59	9	1	-
Regional Roads – 80km/h	1	6	55	36	3	0	-
Regional Roads – 50km/h	39	39	22	0	0	0	-
Local Roads – 50km/h	11	28	56	6	0	-	-
Local Roads – 60km/h	14	65	21	0	0	-	-
Local Roads – 80km/h	15	20	48	16	2	0	-

Distribution of rigid trucks free speeds (%) by road type, 2012

Road type	<50	50-60	60-80	80-100	100-120	120-140	140+
urban national -50km/h sign	25	52	23	0	-	-	-
urban national -60km/h sign	18	49	34	-	-	-	-
Motorways – 120km/h	0	0	21	77	2	0	-
Motorways – 80km/h	0	0	39	61	-	-	-
Dual Carriageways – 100km/h	0	1	29	69	1	-	-
National Primary Road – 100km/h	0	2	35	62	1	-	-
National Primary Road – 80km/h	7	0	50	43	-	-	-
National Secondary Road – 100km/h	1	8	59	32	0	-	-
Regional Roads – 80km/h	6	11	76	7	-	-	-
Regional Roads – 50km/h	81	19	0	0	-	-	-
Local Roads – 50km/h	5	63	32	0	-	-	-
Local Roads – 60km/h	72	28	0	0	-	-	-
Local Roads – 80km/h	36	27	35	2	-	-	-

Distribution of articulated vehicles free speeds (%) by road type, 2013

Road type	<50	50-60	60-80	80-100	100-120	120-140	140+
urban national -50km/h sign	21	56	23	1	-	-	-
urban national -60km/h sign	11	59	31	-	-	-	-
Motorways – 120km/h	-	0	16	84	0	-	-
Motorways – 80km/h	0	0	10	90	-	-	-
Dual Carriageways – 100km/h	-	0	24	76	0	-	-
National Primary Road – 100km/h	-	0	26	73	1	-	-
National Primary Road – 80km/h	-	-	-	100	-	-	-
National Secondary Road – 100km/h	-	1	60	39	0	-	-
Regional Roads – 80km/h	3	8	89	0	-	-	-
Regional Roads – 50km/h	100	-	-	-	-	-	-
Local Roads – 60km/h	-	60	40	-	-	-	-
Local Roads – 80km/h	7	32	61	0	-	-	-

Distribution of Single Decker buses free speeds (%) by road type, 2013

Road type	<50	50-60	60-80	80-100	100-120	120-140	140+
urban national -50km/h sign	23	43	34	-	-	-	-
urban national -60km/h sign	13	57	26	4	-	-	-
Motorways – 120km/h	-	-	4	92	4	-	-
Motorways – 80km/h	0	0	33	67	-	-	-
Dual Carriageways – 100km/h	0	1	21	76	1	-	-
National Primary Road – 100km/h	0	2	38	57	3	-	-
National Primary Road – 80km/h	-	-	100	-	-	-	-
National Secondary Road – 100km/h	2	6	62	28	2	-	-
Regional Roads – 80km/h	6	15	79	0	-	-	-
Regional Roads – 50km/h	100	0	-	-	-	-	-
Local Roads – 80km/h	29	29	43	-	-	-	-

Percentage speeding (Urban) 1999 to 2013

Urban Arterial – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	99	99	86	91	86	40	70	68	77	74	81
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Arterial – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	67	82	75	80	89	32	67	67	72	62	68
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban National – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	94	97	98	89	82	86	78	83	82	85	82
Articulated	89	92	92	89	69	74	68	77	64	78	77
Rigid	85	85	96	80	77	72	64	73	64	76	73
Single Decker Buses	-	-	-	79	74	80	-	-	-	89	77
Motor Cycle	-	-	-	-	88	-	-	-	-	-	100

Urban National – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	61
Articulated	-	-	-	-	-	-	-	-	-	-	29
Rigid	-	-	-	-	-	-	-	-	-	-	32
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	22
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Residential – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	68	61	36	20	45	23	4	4	9	10	15
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Residential – 30km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	57
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Average Free Speed (Urban) 1999 to 2013

Urban Arterial – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	73	69	58	62	60	49	57	56	58	57	58
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Arterial – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	71	77	71	69	71	55	66	65	67	64	66
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban National – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	66	66	69	65	75	75	60	63	61	62	60
Articulated	60	61	63	61	65	66	55	58	55	59	56
Rigid	60	61	66	58	68	65	55	57	55	57	55
Single Decker Buses	-	-	-	56	67	63	-	-	-	63	57
Motor Cycle	-	-	-	-	78	-	-	-	-	-	62

Urban National – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	65
Articulated	-	-	-	-	-	-	-	-	-	-	58
Rigid	-	-	-	-	-	-	-	-	-	-	57
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	57
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Residential – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	53	53	45	43	51	45	35	34	39	40	42
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker	-	-	-	-	-	-	-	-	-	-	-

Buses											
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Residential – 30km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	31
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

85th Percentile Speed (Urban) 1999 to 2013

Urban Arterial – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	85	79	68	69	68	56	70	68	68	66	66
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Arterial – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	84	89	79	79	82	62	76	77	79	73	75
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban National – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	79	76	82	79	92	98	72	76	72	73	71
Articulated	71	71	74	72	80	82	65	68	64	70	63
Rigid	69	73	82	68	82	83	66	67	63	65	63
Single Decker Buses	-	-	-	65	77	84	-	-	-	68	66
Motor Cycle	-	-	-	-	91	90	-	-	-	-	68

Urban National – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	76
Articulated	-	-	-	-	-	-	-	-	-	-	63
Rigid	-	-	-	-	-	-	-	-	-	-	64
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	61
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Residential – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	64	61	55	52	63	54	44	44	47	48	51
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker	-	-	-	-	-	-	-	-	-	-	-

Buses											
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Urban Residential – 30km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	36
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Percentage Speeding (Urban) 1999 to 2013

Motorway – 120km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	29	24	23	15	20	14	15	18	16	15	21
Articulated	81	81	85	94	89	86	91	77	86	85	81
Rigid	74	82	83	88	85	70	83	72	84	78	77
Single Decker Buses	-	-	-	100	0	70	87	85	95	94	96
Motor Cycle	-	-	-	-	-	-	-	-	-	-	9

Motorway – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	80
Articulated	-	-	-	-	-	-	-	-	-	-	83
Rigid	-	-	-	-	-	-	-	-	-	-	55
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Dual Carriageway – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	52	43	29	28	30	24	40	35	31	40	28
Articulated	78	70	60	87	69	54	63	69	75	74	76
Rigid	65	67	55	78	68	48	59	61	59	69	70
Single Decker Buses	-	-	-	77	63	77	59	82	76	88	78
Motor Cycle	-	-	-	-	-	-	-	-	-	-	18

National Primary Road – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	51	44	30	23	27	20	19	23	15	16	19
Articulated	75	74	73	83	87	64	70	67	65	70	71
Rigid	66	61	72	76	76	48	57	57	52	53	60
Single Decker Buses	-	-	-	76	78	71	60	78	44	49	59
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

National Primary Road – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	61
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	36
Single Decker	-	-	-	-	-	-	-	-	-	-	-

Buses											
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

National Secondary Road – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	18	16	14	9	13	4	10	8	6	6	9
Articulated	19	37	34	48	58	25	49	41	31	32	37
Rigid	27	29	46	30	41	13	28	33	25	21	27
Single Decker Buses	-	-	-	38	20	16	19	26	15	10	24
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Regional Roads – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	10	8	63	16	34	34	41	33	34	36
Articulated	-	39	17	45	9	30	21	26	8	2	0
Rigid	-	42	22	45	22	22	14	21	6	10	6
Single Decker Buses	-	-	-	9	0	16	0	-	0	15	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Regional Roads – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	59
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	19
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Local Roads – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	84
Articulated	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	95
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Local Roads – 60km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	21
Articulated	-	-	-	-	-	-	-	-	-	-	-

Rigid	-	-	-	-	-	-	-	-	-	-	0
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Local Roads – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	7	10	37	22	30	21	15	15	13	17
Articulated	-	-	-	-	-	10	5	2	0	0	0
Rigid	-	-	-	-	-	17	10	3	3	1	3
Single Decker Buses	-	-	-	-	-	-	5	-	0	0	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Average Free Speed (Urban) 1999 to 2013

Motorway – 120km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	108	106	106	109	110	108	107	108	109	109	111
Articulated	85	85	85	86	87	86	86	84	85	84	84
Rigid	87	90	89	89	92	85	86	83	86	85	84
Single Decker Buses	-	-	-	95	80	87	90	89	93	93	93
Motor Cycle	-	-	-	-	-	-	-	-	-	-	114

Motorway – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	92
Articulated	-	-	-	-	-	-	-	-	-	-	84
Rigid	-	-	-	-	-	-	-	-	-	-	81
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Dual Carriageway – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	98	95	92	96	90	92	96	94	94	99	95
Articulated	85	84	82	85	79	79	82	83	83	83	83
Rigid	84	84	82	84	81	80	81	82	81	90	83
Single Decker Buses	-	-	-	85	82	86	82	87	85	91	84
Motor Cycle	-	-	-	-	-	-	-	-	-	-	90

National Primary Road – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	98	97	93	94	95	89	91	92	90	90	92
Articulated	81	85	85	85	86	85	82	81	82	82	83
Rigid	81	84	85	86	86	82	81	81	80	80	81
Single Decker Buses	-	-	-	85	84	87	82	85	80	81	82
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

National Primary Road – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013

Car	-	-	-	-	-	-	-	-	-	-	-	84
Articulated	-	-	-	-	-	-	-	-	-	-	-	-
Rigid	-	-	-	-	-	-	-	-	-	-	-	75
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-	-
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-	-

National Secondary Road – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	84	82	85	85	87	76	81	84	82	82	85
Articulated	73	77	77	76	81	70	78	76	76	76	77
Rigid	73	74	79	74	77	67	74	75	74	73	74
Single Decker Buses	-	-	-	75	73	66	71	74	72	72	74
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Regional Roads – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	81	79	84	72	73	76	79	77	76	77
Articulated	-	76	71	76	68	67	71	73	68	68	68
Rigid	-	76	72	77	72	66	70	72	67	70	68
Single Decker Buses	-	-	-	65	60	57	58	-	59	69	66
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Regional Roads – 50km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	53
Articulated	-	-	-	-	-	-	-	-	-	-	41
Rigid	-	-	-	-	-	-	-	-	-	-	47
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	45
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Local Roads – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	69	77	75	67	73	69	65	64	65	66
Articulated	-	-	-	-	-	70	70	60	64	62	63
Rigid	-	-	-	-	-	67	67	58	58	55	57
Single Decker Buses	-	-	-	-	-	-	72	-	58	49	
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

85th Percentile Speed (Urban) 1999 to 2013

Motorway – 120km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	121	118	116	119	123	120	120	122	121	120	123
Articulated	93	89	89	89	91	91	89	87	89	89	89
Rigid	97	105	92	100	109	94	91	89	90	89	89
Single Decker Buses	-	-	-	98	80	98	98	97	99	98	98
Motor Cycle	-	-	-	-	-	-	-	-	-	-	125

Motorway – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	105
Articulated	-	-	-	-	-	-	-	-	-	-	88
Rigid	-	-	-	-	-	-	-	-	-	-	87
Single Decker Buses	-	-	-	-	-	-	-	-	-	-	92
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Dual Carriageway – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	111	106	101	106	103	104	111	111	108	113	106
Articulated	92	90	89	89	89	87	89	89	89	89	89
Rigid	93	93	89	90	93	87	89	89	87	88	89
Single Decker Buses	-	-	-	94	91	96	90	96	93	97	90
Motor Cycle	-	-	-	-	-	-	-	-	-	-	102

National Primary Road – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	113	108	103	103	104	103	103	103	100	101	102
Articulated	92	90	90	90	90	97	89	87	88	88	89
Rigid	93	93	92	94	93	96	89	88	87	87	88
Single Decker Buses	-	-	-	95	97	94	93	91	92	90	92
Motor Cycle	-	-	-	-	-	-	-	-	-	-	101

National Primary Road – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	-	-	-	-	-	-	-	-	-	96
Articulated	-	-	-	-	-	-	-	-	-	-	90
Rigid	-	-	-	-	-	-	-	-	-	-	85

Single Decker Buses	-	-	-	-	-	-	-	-	-	-	-	74
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-	-

National Secondary Road – 100km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	100	98	97	97	100	91	96	96	94	94	97
Articulated	82	87	85	85	88	82	97	85	85	84	85
Rigid	87	87	89	82	89	77	85	85	84	83	85
Single Decker Buses	-	-	-	81	86	82	82	85	82	80	83
Motor Cycle	-	-	-	-	-	-	-	-	-	-	112

Regional Roads – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	93	92	98	86	92	89	91	89	88	88
Articulated	-	87	82	86	80	93	83	84	76	76	75
Rigid	-	90	82	88	84	86	80	83	75	79	77
Single Decker Buses	-	-	-	70	60	81	76	-	68	81	72
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

Local Roads – 80km/h

Vehicle Class	1999	2002	2003	2005	2006	2007	2008	2009	2011	2012	2013
Car	-	87	93	89	82	91	85	80	80	80	82
Articulated	-	-	-	-	-	79	77	71	76	72	75
Rigid	-	-	-	-	-	81	80	73	70	66	68
Single Decker Buses	-	-	-	-	-	54	80	-	70	69	70
Motor Cycle	-	-	-	-	-	-	-	-	-	-	-

7 Data Collection Sheet

Site ID.		Surveyor Name		Date	
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Vehicle Number	Cars	Rigids	Artics	Buses – Single Decker	Buses – Double Decker	M/C (Rural Only)
1						
2						
3						
4						
5						
6						
7						
8						
9						
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28						
29						

Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority

Páirc Ghro Ghleann na Mualdha, Cnoc an tSabhaircín, Bóthar Bhalie Átha Clíath,
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